

NEWSLETTER

CANADIAN SOCIETY for HORTICULTURAL SCIENCE SOCIÉTÉ CANADIENNE DE SCIENCE HORTICOLE

Your executive / Votre exécutif

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PRESIDENT'S CORNER



Dear colleagues,

Greetings to everyone from the Canadian Society for Horticultural Science (CSHS) Executive Committee. We hope you had a wonderful summer and we look forward to an exciting and active year ahead.

I am looking forward to our 2014 Annual General Meeting during the CSA-CSHS Joint Conference at Lethbridge, AB from July 10 - 12, 2014. The Conference Organizing Committee and CSHS

representatives (Diane Edwards and Samir Debnath) are working hard and we are going to have a fun meeting that will include a tour, three graduate student awards (travel, best poster presentation and best oral presentation) and two best paper awards published in the Canadian Journal of Plant Science during 2011 and 2012, respectively.

I would like to encourage our membership to become engaged in CSHS activities. Please feel free to contact me if you have any question or concern.

We wish you a safe and relaxing holiday season and A Very Happy New Year!

With best regards,

Samír Debnath, Ph.D., P.Ag. President of CSHS samir.debnath@agr.gc.ca Telephone: (709) 772-4788

Renew your membership for 2014 today!

Support the Canadian Society for Horticultural Science and renew your membership for 2013. Also don't forget to include your colleagues and graduate students. An application form is at the back of the newsletter.



Please remind your graduate students to join the society so they can be eligible for the Travel, Oral and Poster awards given out at the Society's scientific meeting.

Changes to Membership



Multi-year membership

The executive of the CSHS is introducing a multi-year membership for Regular and Retired Members.

Multi-year membership rates in dollars.

Year	1	2	3	5
Regular	65	120	175	275
Retired	20	35	55	90

A multi-year membership is a convenient and a cost-effective method to support the Canadian Society for Horticultural Science.

Agricultural Institute of Canada (AIC) has been collecting demographic membership data about itself and about its member organizations. AIC gathers information about gender, age groupings and location from its members though a voluntary request on its membership form. In 2010 and 2011, AIC requested information from societies and compiled the attached information about membership totals, and gender disaggregated data. This information is used by AIC to monitor changes in the professional community. Below are the data from the CSHS

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Gender Data I	for Canadian	Society for	Horticultural	Science 2010 to 2013	•

Year		2010			2011			2012			2013	
Gender	Μ	F	Т	Μ	F	Т	Μ	F	Т	Μ	F	Т
Regular/Retired	64	14		83	28	111	61	16	77	50	14	64
Students							7	5	12	3		3
Total			78			111	68	21	89	53	14	67
% Female		18%			25%			24%			21%	

Source: Dinah Ceplis, AIC

Feature: Horticultural Science at the University of Saskatchewan





DEPARTMENT PLANT SCIENCES

(http://agbio.usask.ca/departments/plantsciences/index.php)

HORTICULTURE SCIENCE PROGRAM

Plant Sciences is the largest department in the College of Agriculture and Bioresources at the University of Saskatchewan (>330 total staff including faculty (27), postdocs, graduate students, technicians, research assistants). Undergraduate degree programs in Plant Sciences include Agronomy, Crop Science, Applied Ecology and Horticulture Science. Four faculty have specializations in horticulture and offer 13 undergraduate courses: vegetable and fruit production; ornamental, landscaping; greenhouse production; propagation; postharvest storage; international horticulture; urban food production; and experiential learning.

Horticulture Academic programs: 4 year undergraduate Horticulture Science major (16 undergraduate students, a 150% increase from 2011); distance education diploma level Prairie Horticulture Certificate Program (PHC)—a consortium among four prairie institutions and initiated by the U of S has enrolled > 3000 students since 1994. M.Sc. and Ph.D. graduate programs accredited and offered. In addition, U of S Horticulture Club has >80 members active in food security projects (see below).

- In March, 2013, a 10 year Memorandum of Understanding (MOU) was signed with Iwate University, Japan for both undergraduate and graduate student/faculty study abroad, teaching, etc.
- In Sept. 2013, a MOU was signed with Has Den Bosch University, The Netherlands, for student study abroad.
- Similarly, at the graduate level, four Japanese Agriculture Universities are working on a Dual Ph.D. degree with our UofS Plant Sciences program. We will be the first institution in the world to hold such an agreement with Japan in the Sciences. A dual Ph.D. in Plant Sciences

is also under development with the Norwegian University of Life Sciences.

Research Facilities (all located on campus): Laboratories, Horticulture field--35 ha of fruit and vegetable crops, storage facilities; Patterson Gardens--2.0 ha collection of >700 trees and shrubs; $1800 \text{ m}^2 (20,000 \text{ ft}^2)$ modern greenhouse; largest Conviron phytotron facility in the world (185 chambers) located in the basement of the Agriculture Building.



VEGETABLE RESEARCH

Background - The University of Saskatchewan has a long history of conducting basic and applied research on production and utilization of vegetable crops. The research focuses on crops and production issues relevant to Saskatchewan growers. Saskatchewan Agriculture and Food is the 1° source of funding support for this research.

Vegetable Cultivar Evaluation Trials - for the past 30 years the U of S has been conducting vegetable variety trials evaluating the performance of the latest releases from breeding programs worldwide. In a typical year >600 cultivars of 6-8 different vegetable crops are assessed for yields, quality, resistance to biotic and abiotic stresses, storage potential etc. Cultivar performance information is provided to growers, industry stakeholders and the gardening public.

High Tunnels - the U of S were early adopters of high tunnels as a means to enhance productivity of warm season vegetable crops. Ongoing research focuses on crop management & production economics in the high tunnel environ.

Integrated Management of Root Maggot (Delia sp) – root maggots are the most consistently damaging pest problem of vegetable crops in Saskatchewan. This research project takes an integrated approach to managing this pest by examining; trap/distraction crops, altered planting practices, physical barriers to the root maggot fly, new pesticide options and the potential to develop rutabaga lines resistant to root maggot.

Green Manures in Row Centers – this project is evaluating the potential use plant green manure crops planted between the rows of widely spaced vegetable crops like pumpkin as a means to control weeds, enhance soil health and improve crop quality without competing with the crop for space or other limiting resources.

Assessment of Potato Breeding Lines and Newly Released Cultivars – working in affiliation with potato breeders at Agriculture and Agri-Food Canada, this project is assessing the performance of new potato lines under Saskatchewan growing conditions and relative to the market needs identified by Saskatchewan growers.

Agronomics of New Potato Cultivars – this program helps develop locally appropriate agronomic recommendations for newly released potato cultivars. Soil fertility requirements, response to in-row spacing, irrigation requirements, optimum time of planting/harvest are being assessed.

Alternative Methods of Disease and Sprouting Control in Stored Potatoes – the potential to use biocontrol agents to manage disease in stored potatoes is being assessed. This project is also evaluating the performance of alternative methods of dormancy management in stored potatoes.

Additional research projects include;

- Assessment of efficacy and crop safety of post-emergent herbicides for use in onions
- Impact of foliar applied fungicides on post-harvest disease development in onions
- In-field and post-harvest applications of fungicides for control of sclerotinia in stored carrots

Foliar applied plant growth regulators to alter skin color and enhance scab tolerance in potatoes

For more information on the U of S Vegetable Research Program contact Dr. Doug Waterer at 306-966-5860 or doug.waterer@usask.ca

Over a decade of research results from the Vegetable Research Program at the University of Saskatchewan can be viewed at our web page (<u>www.usask.ca/agriculture/plantsci/vegetable</u>)



FRUIT RESEARCH PROGRAM

Overview: The main activity of the U of S Fruit program is developing new fruit varieties, but we also do some breeding of ornamentals and have agronomic projects. We are one of the coldest places worldwide breeding many of our crops which include apples, saskatoons, sour cherries, plums, raspberries, pears, strawberries, haskap, hazelnuts, currants, grapes and more. We maintain a large collection of hardy fruit, many of which are bred on a rotating cycle. Most varieties from elsewhere in Canada are not hardy in our Zone 2 location, so it is vital that we maintain our own hardy fruit genebank. Fruit breeding started in 1921 at the U of S and we have many breeding lines under development. Several of our 'new' crops, like the Romance series of sour cherry took over 60 years to develop extreme cold hardiness combined with good fruit quality.

Mechanical Harvesting: A unique aspect of our fruit breeding is that we consider traits such as canopy shape, fruit durability, retention forces, fruit shapes and ability to ripen uniformly as traits to select for ease of mechanical harvesting. We have been working with a sideways over

the row harvester designed for bush fruits. This type of machine causes minimal fruit damage but requires the right canopy shape and flexibility of branches.

Haskap: We have the most genetically diverse collection of this crop. We obtained large collections from Russian and Japan, but also we gathered 1200 accession from across Canada. In the last 5 year more than half our funding comes from grants for Haskap research or royalties from sales of newly developed haskap varieties.

Variety Releases in 2013: 'Aurora' haskap, 'TreasuRed' apple, 'King Crab', 'Lion Fish', and 'Yellowfin Tuna' added to the 'Under the Sea Coleus' Series. Several of our varieties are being propagated and sold in Europe. Loblaws began selling our cherries and haskap in their garden centres across Canada.

Outreach Activities: Our website <u>www.fruit.usask.ca</u> has over 50 articles website and is projected to have 1.8 million hits by the end of 2013. Haskap breeding at U of SK appeared in 'The Nature of Things' tv show in part 2 of 'The Fruit Hunters' episode. We hold at least 2 field workshops/yr and give more than a dozen talks to various grower groups.

Recent Books: In cooperation with Alberta Agriculture a new` Saskatoon Berry Manual`` was published this year. This book was originally written at the U of S, but updated, edited and printed by Alberta agriculture.

`Cooking with Cherries from the Prairies` was published in 2012 but received a Gourmand cookbook award in 2013. This cookbook was created by volunteers. Proceeds go toward student employment and research on fruit. The Gourmand CEO told us that with 371 recipes it is the world's largest cherry cookbook.

New and current graduate Students: The Mongolian government is funding Bayartulga Lkhagvasuren who will study *Lonicera caerulea* in the wild and in the greenhouse as part of his Ph.D program. Other students include James Dawson (Ph.D.) working on haskap phytochemical composition and Eric Gerbrandt (Ph.D.) examining haskap dormancy and phenology.

For more information, contact Dr. Bob Bors, 306-966-8583, bob.bors@usask.ca (<u>www.fruit.usask.ca</u>)



URBAN / LOCAL FOOD PRODUCTION

Photo, Grant Wood, UofS

New Course: In 2011 Pl Sc 235.3 – Urban Food Production was introduced. Enrollment has consistently reached the maximum allotted for the course in the three years it has been offered. This year, the course is being offered in both Term 1 and Term 2 and enrollment continues to be strong. Learning how to produce some of their own food within an urban / town setting draws students from four colleges.

Rooftop Gardening: Permission is presently being sought for the conversion of a highly visible vacant roof at the U of S to a vibrant food production system that includes vegetable and fruit production, hydroponics, and a bee hive. An increasing number of agriculture students - graduates from urban high schools have a different view of agriculture, so this rooftop will present another view of agricultural production.

Horticulture Club: the Hort Club, a ratified U of S club continues to grow as more and more students wish to explore the many benefits of the fascinating and variable field of horticulture. A two plus acre garden on campus is the primary project, where students are involved in vegetable production from seeding, transplanting, weeding, harvesting and consuming of the produce. Food processing sessions devoted to canning, freezing, jams & jellies and various forms of cooking are in high demand. Greenhouse production of vegetable crops is also active during the winter months.

Youth, Addictions & Gardening: a research project involving a local addictions program was initiated this year to explore the relationship between youth, addictions and the role of gardening in addressing these issues. The project will continue next year.

Undergraduate & Graduate Research: for one undergraduate thesis project, a fourth year student is looking at soil disturbance in urban settings to determine the severity of disturbance of the soil profiles and what is required for these soils to become productive food producing soils. In collaboration with the School of Environment and Sustainability (SENS) a graduate student is exploring factors that inhibit urban food production for immigrant families.

Experiential Learning: Pl Sc 235 students have identified factors that restrict urban food production. In response they have created information packages that they plan to present to city council and to a variety of organizations whereby they will educate their clients about a specific aspect of urban food production. Through their actions the students hope to change bylaws and to encourage adoption of food production initiatives such as urban production of chickens, rabbits and ducks, plus urban market gardening, and rooftop farming. Educational programs tied to urban and local food production have been proposed for a variety of local organizations plus urban planning students have designed new neighbourhoods for Saskatoon that are based on food.

For more information contact Grant Wood at 306-966-5586 or grant.wood@usask.ca



ABIOTIC STRESS PHYSIOLOGY PROGRAM

New Course: undergraduate course (AGRC 311.3) Commercial Horticulture tour to BC (30 locations in 7 days). Also expanding the existing PLSC 865.3 Abiotic Stress graduate course to include video conference lectures from Japan and Norway.

Physiology Research: Currently four graduate students and 1 postdoctoral fellow are studying: the role of the cell wall in freezing stress resistance (Jun Liu and Ian Willick, Ph.D. students; Keita Endoh pdf); using strawberry as a model system to study epigenetic inheritance of phenotypic traits (Jihua Xu, Ph.D. student); potato drought physiology and transgenerational responses (M.Sc. student, Pankaj Banik). Additional staff include a research technician working on enhancing seed germination under low temperatures. A former student (Dr. Lee Kalcsits) was recently hired as an Assistant Professor of tree fruit physiology at Washington State University, Pullman WA. We were selected as the prairie winter hardiness trial centre for the national rose breeding program out of the Vineland Research and Innovation Centre, Ontario.

Funding is based on an NSERC Discovery Grant, Agriculture Development Fund, Forge Ahead, Norwegian Centre for International Cooperation in Education, Dupont-Pioneer, AAFC SAGES grant with additional student support from the China Scholarship Council. Karen Tanino has been studying/working in the field of plant abiotic stress for 30 years with over 140 research contributions including 4 books.

Additional Activities: adjunct professor at Iwate University, Japan; U of S project manager for the Norway collaborative grant on Abiotic stress responses and climatic adaptation in plants - A research-based higher education network project (2012-2016) promoting student and faculty exchange; co-chair 8th International Plant Cold Hardiness Seminar and organizing committee member of numerous other cold hardiness conferences; founding chair of the Prairie Horticulture Certificate Program; Lead of the Northern Food Security Thematic Network of the University of the Arctic (a consortium of over 160 institutions circumpolar); northern food security (3 research assistants hired part time to collect northern greenhouse crop production information, and develop a northern food security database and library), chair of the First (2011) and Second (2013) Saskatchewan Food Summits (www.usask.ca/foodsummit); co-chair Northern Greenhouse conference (2012); co-chair of the First Joint meetings of the Circumpolar Agriculture Association and the University of the Arctic Northern Food Security conference in Alaska (2013) (www.uaf.edu/cac), etc. (seven major conferences 2011-2013).

For more information contact: Dr. Karen Tanino, 306-966-8617 or karen.tanino@usask.ca

CSA & CSHS Joint Annual Conference 2014 Announcement and Pre-Call for Abstracts At the University of Lethbridge



Photo Gloria Gingera, U of S Photo Gloria Gingera, U of S Photo Gloria Gingera, U of SPhoto Rob Spencer, AARD

"Balancing the Trade Offs Between Productivity and Environmental Health"

Thursday July 10 to Saturday July 12, 2014

Organized by: Canadian Society for Agronomy and

Canadian Society for Horticultural Science.

You are invited to join us in Lethbridge, Alberta from July 10-12, 2014 for a scientific conference addressing current research on the topic of "Balancing the Trade-Off between Productivity and Environmental Health". Plenary talks by keynote speakers Dr. Susan Wood-Bohn and Dr. Shabtai Bittman will explore the challenge of balancing productivity and environmental health within agronomic and horticultural production. Featured speakers and volunteer presenters will describe current research in sessions dedicated to: Cold Hardiness and Stress Tolerance; Integrated Crop-Livestock Systems; Breeding, Productivity and Environment; Nutrient and Water Management; Organic Production; Water and Irrigation Management. More details on speakers, tours, registration, and abstract submission will be forth coming.

Keynotes: Dr. Shabti Bitman (CSA) and Dr. Susan Wood-Bohn (CSHS)

Session Titles Cold Hardiness and Stress Tolerance Production and Protection under Changed Environment Organic Agriculture Feature Speakers Dr. Karen Tanino Dr. Ali Navabi

Dr. Martine Dorais

Integrated Crop-Animal Systems Nutrient and Water Management Water and Irrigation Management Dr. Tim McAllister Dr. Perry Miller TBA

Other Sessions Poster, CSA and CSHS Panel Discussion



Pre-Conference Tours (Tentative stops)

CSHS: Crop Diversification Centre South Brooks, AB (New Greenhouse facility), Sugar or Potato Processing Plant in Taber, AB and Japanese Garden in Lethbridge, AB.

Conference Chairs:

Derek.Lynch@dal.ca

Derek Lynch (CSA President), Samir Debnath (CSHS S President) and Surya Acharya

Samir.Debnath@agr.gc.ca

Surya.Acharya@agr.gc.ca

Local Organizing Committee chair: Surya Acharya

Committee Members: Brain Beres, Robyne Bowness, Diane Edwards, Jamie Larsen, Alison Nelson, Sheri Strydhorst, James Thomas

Deadlines:

- For abstracts, April 2, 2014
- For early bird registration, April 25, 2014

Registration Fees

Early Bird Full Registrants @	\$275
Full Registrants @	\$325
Early Bird Student Registrants @	\$190

Full Student Registrants @	\$240
Thursday Tour	TBA

Attention Graduate Students

The CSHS give out two awards of \$400 each for the best oral and poster presentation at our annual meeting. In addition, a \$400 travel award is also available. If you are interested please indicate on the abstract submission form and students must be a member of CSHS to be eligible.

Announcement of Annual General Meeting of CSHS 2014

Tentatively, the AGM will be held on Friday July 11, 2014 at 12:30 pm during the joint conference at the University of Lethbridge, location to be announced.

Sponsors Needed for Fruit Trees

Canadian Food Inspection Agency will be discontinuing the maintenance of approximately 100 accessions of virus-free tree fruit plants by March 31, 2015.

CFIA has maintained a collection of virus-free certified plants at the Centre for Plant Health in Sidney BC. The Agency has identified a number of public varieties which do not have a sponsor to pay the fees to stay in the program. CFIA is looking for sponsors to maintain 100 public varieties located the Centre for Plant Health in Sidney, BC. The cost of the maintenance is \$70.75 per accession per year, the sponsor of the accession will have the full rights over the distribution.



Inquiries can be sent to:

Dan Thompson Director / Directeur Canadian Food Inspection Agency / Agence canadienne d'inspection des aliments Sidney Laboratory / Laboratoire de Sidney 8801 East Saanich Road / 8801 rue Saanich est North Saanich, BC V8L 1H3

Tel: 250-363-6650 ext 234 / tél 250-363-6650 poste 234 Cell tel: 250-888-9221 / tél cellulaire: 250-888-9221 Facsimile: 250-363-6661 / télécopieur: 250-363-6661 E-Mail: <u>dan.thompson@inspection.gc.ca</u> / courriel: <u>dan.thompson@inspection.gc.ca</u>

Government of Canada / Gouvernement du Canada Canadian Food Inspection Agency / Agence canadienne d'inspection des aliments www.inspection.gc.ca

APPLES:	PLUMS	PEARS	APRICOTS	CHERRIES - SWEET
Variety 7617	Assiniboine	8801	Bungo	Schattermorelle
Blushing Golden	Bluebell	Butt	Early Blush	Sultan
Brock	Burbank	Gelbmostler	Goldcot	Viscount
Criterion	Early Golden	Gin	Goldrich	
Fuji BC 1	Damson	Hendre Huffcap	Harcot	CHERRIES –
Fuji Nagafu #2	Green Gage	Obican Vodenac	Hargrand	ORNAMENTAL
Fuji Red Sport Type	Italian	Packham Triumph	Harlayne	UKINAMENTAL
1	Mount Royal	Ping Guo Li	Harogem	Accolate
Golden Delicious	Pollardi	Romanian Perry	Harval	Kursar
Lutz	Ptitsin #10	Pear	Pui-Sha-Sin	Pink Shell
Golden Nugget	Red Heart	Sensation	VA 11/5	Shogetsu
McIntosh Chick-A-	Valour	Timpurii de	Veecot	Subhirtella "Pendula
Dee	Vanier	Dimbovita		rubra" Tai-Haku
Norland	Veeblue	Yakumo		Tuoru Tur Turu
Splendor	Victory			
Takane	Voinesti B			
Tohoku #2	Voyageur			
Viking				
Zimnieje Limonnoje				
APPLES -	MISCELLANEOUS	PEARS –	PEACHES –	CHERRIES -
ORNAMENTAL	ORNAMENTALS	ROOTSTOCK	ROOTSTOCK	ROOTSTOCK
Dartmouth	Bob Harrison	OH X F 51	Rutgers Red	Colt
Directktoeur	Bounty		Leaf	Giessen 318/17
Moorland	Cresthaven			
Excellenz Thiel	Garnet Beauty	DEADC	-	
Gladiator	Harcrest	PEARS – ORNAMENTAL		APPLE - ROOTSTOCK
Gorgeous	Harken	UKNAMENTAL		RUOISIUCK
Laura	Harrow Beauty	Aristocrate	-	M9 (T.337)
M. triloba	Harrow Diamond	Anstocrate		Ottawa 3
Pink Perfection	Harrow Fair			Ollawa 5
Red Jade	Harson			
Shaughnessy Cohen	Loring (IR 200-3)			
Springbride	Red Haven			
White Star	Redskin (IR 204-1)			
	Veecling			
	White Lady			

List of unsponsored varieties/rootstock in tree fruit repository from the Centre for Plant Health

Source: Dr. Bob Bors (University of Saskatchewan)

People in the News

Dr. Shahrokh Khanizadeh

Honorary Life Membership CSHS

The executive of the Canadian Society for Horticultural Science (CSHS)/Société Canadienne de Science Horticole (SCSH) is pleased to hereby confer an Honorary Life membership to Dr. Shahrokh Khanizadeh with effect from April 15, 2013. This is in recognition for Dr. Khanizadeh outstanding contribution to horticultural science as a researcher, a teacher, editor and a mentor. Thank-you Shahrokh for your excellent service to horticultural science in Canada.



Dinah Ceplis

Fellow of the Agricultural Institute of Canada

Congratulations to Dinah Ceplis who was selected to receive AIC's highest honour, the title of Fellow of the Agricultural Institute of Canada. The award recognizes an individual AIC member who has made a distinguished contribution to Canadian agriculture by building scientific capacity for societal good, integration and collaboration between disciplines and sectors, and communications.

Dinah has made an outstanding contribution to AIC by engaging members and Canadians through her writing and participation in projects both at home and abroad. Her travels to Africa to assist in the development and management of AIC's agricultural projects have enriched many lives through her generous sharing of experiences and willingness to volunteer countless hours communicating the benefits to contributing to a global community. Dinah's agricultural skills and adult education background, focusing on sustainable agriculture and rural initiatives, are invaluable resources to AIC and Canadians.



Dinah Ceplis (left) and Annemieke Farenhorst

Photo courtesy Jacqueline Onagi

Beyond AIC, Dinah's involvement with non-governmental organizations, over many years, helped to build global perspectives around international issues including HIV/AIDS, fair trade, and rural community development. Dinah continues to provide leadership and direction to AIC, especially in areas of gender equality and international projects. Her attention to detail, encouragement, sensitivity to culture and her focused approach to efficient project management are qualities we value in a Fellow of the AIC. *Source AIC*

Global Plant Council

http://globalplantcouncil.org/



Global Plant Council Overview

What is the Global Plant Council (GPC)?

The GPC is a coalition of 25 plant and crop organisations and societies from across the globe.

Through its member organisations the GPC represents at least 40,000 researchers spread over five continents.

GPC Priority Areas

- •Agricultural Productivity and Sustainability GPC Initiative: Capturing Crop Biodiversity – Digital Seed Bank
- •Food and Human Health GPC Initiative: Dealing with Malnutrition – Biofortification
- •Adaptation to Climate Change GPC Initiative: Towards Yield Stability – Stress Resilience
- •Data, Knowledge and Resources Cross---cutting theme throughout all initiatives

Unique Role of GPC

- 1. Provide a voice for plant and crop science at the global level that is not possible at the national/regional level. For example, the GPC has the ambition to be consulted by the G8, G20 and FAO on global plant and crop research.
- 2. Bring plant and crop scientists together at the global level to pool expertise and knowledge in order to define and engage in coordinated strategies that impact the most critical global issues. This will be achieved via GPC Initiatives for Global Challenges.
- 3. Generate a critical mass for plant and crop science at the global level to undertake activities and generate greater leverage than one organisation could achieve on its own. For example, the GPC plans to undertake an economic assessment of the global value of plant and crop science.

What Does GPC Hope to Achieve?

1. Be an advocate for plant science at the global level

2. Act as a catalyst to initiate plant---based solutions to global problems

GPC Advocacy Activities

- 1. To be consulted by the UN, G8, G20 and FAO on global plant and crop research
- 2. Organise an economic assessment of the value of plant and crop science
- 3. Generate policy/advocacy papers to promote awareness of plant science
- 4. Provide commentary articles for Nature and Science to promote the importance of plant science.
- 5. Collate and promote success stories in plant science across the globe
- 6. Promote global scientific prizes for which plant scientist are eligible

GPC Catalyst Activities

- 1. Digital Seed Bank and Seed Seq Workshop Jan 2014 San Diego
- 2. Global Plant Council Forum on Biofortification July 2014 China
- 3. Global Plant Council Forum on Stress Resilience 2015 in collaboration with SEB
- 4. Explore the possibility of African Agricultural Workshop with International Crop Science Society

Source: The Global Plant Council



Summary Report of the 2013 GPC Annual Meeting October

The 2013 GPC Annual Meeting was graciously hosted by the Howard Hughes Medical Institute (http://www.hhmi.org) on October 20–22 2013 at its headquarters in Washington DC, USA. 25 delegates representing 20 GPC member societies and organisations from 16 different countries gathered together to discuss progress during the last year as well as future strategies and initiatives.

Those present at the meeting agreed that the main functions of the GPC are:

- 1. To be an **advocate** for plant science at the global level
- 2. Act as a **catalyst** to initiate plant---based solutions to global problems

Through its 25 member organisations and societies the GPC currently represents over 40,000 plant and crop science researchers spread over five continents.

This wide geographical distribution and wealth of experience allows the GPC to fulfil a unique role by:

- 1. Providing a voice for plant and crop science at the global level that is not possible at the national/regional level. For example, the GPC has the ambition to be consulted by the G8, G20 and FAO on global plant and crop research.
- 2. Bringing plant and crop scientists together at the global level to pool expertise and knowledge in order to define and engage in coordinated strategies that impact the most critical global issues. This will be achieved via GPC Initiatives for Global Challenges.
- 3. Generating a critical mass for plant and crop science at the global level to undertake activities and generate greater leverage than one organisation could achieve on its own. For example, the GPC plans to undertake an economic assessment of the global value of plant and crop science.

Looking Forward

In the coming years the GPC's central aim will be **to provide food and feedstocks for 10 billion people in a sustainable manner.**

To achieve this the GPC has decided on four main priority areas:

- <u>Agricultural Productivity and Sustainability</u> To begin with this will be achieved via the **Digital Seed Bank** GPC Initiative, which focuses on capturing and exploiting the wealth of crop biodiversity to find new genes, alleles and genetic networks. These will make our crop plants more resilient to climate change and pathogens while increasing nutrient use efficiency and yield.
- <u>Food and Human Health</u> The initial focus in this area will be the **Biofortification** GPC Initiative, which aims to generate plant---based solutions for dealing with malnutrition.
- <u>Adaptation to Climate Change</u> Activities in this area will be centred on the **Stress Resilience** GPC Initiative. This will concentrate on understanding how plants grow, develop and interact with their environments in order to develop crops that can generate a stable yield under fluctuating and unpredictable environmental conditions.
- <u>Data, Knowledge and Resources</u> To make informed decisions regarding the most appropriate solutions and approaches to current global problems, it is essential that all stakeholders have access to the most up---to--- date evidence and relevant information. The sharing of data, knowledge and resources will therefore be a common foundation of all GPC initiatives.

Planned Activities

Advocate for plant science at the global level

- 1. Ambition to be consulted by the G8, G20 and FAO on global plant and crop research.
 - Initiated contact with FAO Agriculture and Consumer Protection department and planned meeting in Rome.

- Utilise GPC member organisations that are based in G20 countries to become involved in preparatory discussion in advance of G20 Agriculture Ministers meeting in 2014. GPC will provide draft letter to be sent to each agriculture ministry and minister via GPC representative.
- 2. Organise an economic assessment of the value of plant and crop science.
- 3. Generate policy/advocacy papers, to be utilised by each national/regional organisation, to help promote awareness of plant science and the role it plays in everyone's life.
- 4. Provide commentary articles for key journals such as Nature and Science to promote the importance of plant science. 5. Collate and promote success stories in plant science across the globe. 6. Promote global scientific prizes for which plant and crop scientists are eligible.

Catalyst to initiate plant---based solutions to global problems

- 1. Immediate GPC Initiatives for Grand Challenges These initiatives will bring together expertise from across the globe via the **GPC Forums** to define and engage in coordinated research programmes. The GPC will focus its efforts on the following three Initiatives:
 - a. Capturing Crop Biodiversity Digital Seed Bank Initial Workshop to be held in collaboration with the Seed Seq project in San Diego, USA, Jan 2014.
 - b. Dealing with Malnutrition Biofortification Global Plant Council Forum to be held after the third international conference on plant metabolism in Xiamen, China, July 2014
 - c. Towards Yield Stability Stress Resilience Potential Global Plant Council Forum in collaboration with SEB plant section during 2015.
- 2. Aspirational initiatives These initiatives will be kick---started by the GPC and driven forward by the community. Planned topics to include: Perennial Crops, Plant Environment Metagenome, Towards a Green Economy, and Enhancing Crop Diversity
 - a. For each initiative the GPC will request experts from each member organisation/society that is interested in the area and willing to be actively involved, to drive this area forward.
 - b. The GPC will facilitate the formation of working groups (at least one lead scientist from each continent) to drive initiatives forward.
 - c. Working groups will organise a meeting of experts in discussion with the GPC executive to kick---start the initiative.
 - d. Continuation of the initiative will be the responsibility of the grouping/community with a request to report back to the annual GPC meeting.
- 3. New initiatives Further initiatives from member organisations and individual scientists will be requested each year and considered at the annual GPC meeting.

4. Sustainable African Agricultural Workshop The feasibility of a potential workshop in collaboration with the International Crop Science Society will be explored during 2014.

Increasing Awareness of the GPC

To provide a strong voice for plant science in the global debate the GPC must establish itself as a prominent network at the international level. To help achieve this the GPC will:

- 1. Provide a monthly e---bulletin to which all members can contribute information and to which individual scientists can subscribe
- 2. Provide quarterly updates to all members on GPC activities
- 3. Promotion of the GPC at member organisation meetings via poster, presentation or booth
- 4. Utilise online media such as the GPC website and Twitter to reach a wider audience

Active Involvement of GPC Members

The GPC is a coalition of member organisations and societies, each of which represents distinct competencies and knowledge areas that are critical for the mission and operations of the Council. For the future success of the GPC, it is therefore essential that all members are actively involved in GPC activities. The GPC outlined the following responsibilities of each member:

- Respect the constitution and bylaws
- Promote the GPC whenever possible, e.g. at annual meetings, organisation/society newsletters
- Distribute the GPC monthly e---bulletin and quarterly reports to all members
- Provide the GPC with relevant information for the GPC website and newsletter
- Provide experts for GPC Initiatives as requested
- Become actively involved in and support GPC activities
- Provide the relevant contact details of society members such as GPC representatives and the financial officer
- Payment of membership fees

Source: The Global Plant Council

Upcoming Meetings / Conferences (2013/2014)

North American Conferences *CSHS will hold a meeting with CSA on July 10 to 12th in Lethbridge, AB

Name	Begin Date	Country name	Place	URL
II International Orchid Symposium	19/02/2014	Thailand	Bangkok	http://www.kmutt.ac.th/IOS2014
I International Symposium on Vegetable Grafting - ISVG2014	17/03/2014	China	Wuhan, Hubei Province	http://www.grafting2014.com
International Symposium on Physiological Principles and Their Application to Fruit Production	26/03/2014	United States of America	Geneva, NY	http://events.cals.cornell.edu/
III International Symposium on the Genus Lilium	01/04/2014	China	Zhangzhou, Fuijan	http://www.lilium2014.org
II International Symposium on Wild Relatives of Subtropical and Temperate Fruit and Nut Crops	07/04/2014	Azerbaijan	Baku	http://wildcrops- 2014.dev.az/wordpress/
XIII International Symposium on the Processing Tomato - XI World Processing Tomato Congress	08/06/2014	Italy	Sirmione	http://www.worldtomatocongres s.com
V International Conference Postharvest Unlimited	10/06/2014	Cyprus	Lemesos	http://web.cut.ac.cy/postharvest/
Joint meeting of Canadian Society of Horticultural Science and Canadian Society of Agronomy	10/07/2014	Canada	Lethbridge, AB	
VIII International Symposium on Chemical and Non-Chemical Soil and Substrate Disinfestation	13/07/2014	Italy	Torino	http://www.sd2014.org
XII International Pear Symposium	14/07/2014	Belgium	Leuven	http://www.pcfruit.be/
XI International Conference on Grapevine Breeding and Genetics	28/07/2014	China	Beijing	http://www.grapebreeding2014. com/

Annual Conference of the				
American Society for Horticultural Science	28/07/2014	USA	Orlando	
International Go Nuts Symposium	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_52.html
International Symposium on Consumer and Sensory Driven Improvements to the Quality of Fruits and Nuts	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_11.html
International Symposium on High Value Vegetables, Root and Tuber Crops and Edible Fungi - Production, Supply and Demand	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_14.html
International Symposium on Biosecurity, Quarantine Pests and Market Access	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_32.html
International Symposium on Physiology of Perennial Fruit Crops and Production Systems in a Changing Global Environment	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_8.html
International Symposium on Horticulture to Improve the Livelihoods of Communities in Developing Countries	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_6.html
International Symposium on Ornamental Horticulture in the Global Greenhouse	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_15.html
International Symposium on Molecular Biology in Horticulture	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_24.html
International Symposium on Abscission Processes in Horticulture and their Manipulation to Improve Crop Growth, Development and Quality	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_9.html
XXIX International Horticultural Congress: IHC2014	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/
XII International People Plant Symposium: Horticulture and Human Communities: People, Plants and Places	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_2.html

VI International Symposium on Human Health Effects of Fruits and Vegetables - FAVHEALTH2014	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_1.html
International Symposium on the Non-destructive Assessment of Fruit Attributes	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_17.html
International Symposium on Water Scarcity, Salination and Plant Water Relations for Optimal Production and Quality	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_5.html
International Symposium on Postharvest Knowledge for the Future	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_19.html
International Symposium on Eco-Efficiency in the Lifecycle of Horticultural Production and Footprinting Metrics	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_31.html
International Symposium on Organic Waste to Horticultural Resource	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_30.html
International Symposium on Mango	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_39.html
IV International Symposium on Papaya	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_34.html
VII International Symposium on Education, Research Training and Consultancy	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_20.html
V International Conference on Landscape and Urban Horticulture	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_28.html
International Symposium on Plant Breeding in Horticulture	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_23.html
III International Genetically Modified Organisms in Horticulture Symposium - Past, Present and Future	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_25.html
International Symposium on Tropical Fruit	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_37.html
International Symposium on	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos

Innovative Plant Protection in Horticulture				ium 18.html
International Symposium on Horticulture in Developing Countries and World Food Production	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_3.html
International Symposium on Root and Tuber Crops: Sustaining Lives & Livelihoods into the Future	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_40.html
International Symposium on Micropropagation and In Vitro Techniques	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_26.html
International Symposium on Plants, as Factories of Natural Substances, Edible & Essential Oils	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_42.html
XVII International Symposium on Horticultural Economics and Management & V International Symposium on Improving the Performance of Supply Chains in the Transitional Economies	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_21.html
International Symposium on the Impact of Asia-Pacific Horticulture - Resources, Technology and Social Welfare	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_4.html
IV International Symposium on Plant Genetic Resources: Genetic Resources for Climate Change	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_27.html
International Symposium on Promoting the Future of Indigenous Vegetables Worldwide	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_13.html
International Symposium on New Technologies in Protected Cultivation	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_22.html
International Symposium on Mechanisation, Precision Horticulture, and Robotics	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_16.html
III International Conference on Turfgrass Management	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_29.html

and Science for Sports Fields				
II International Berry Fruit Symposium: Interactions! Local and Global Berry Research and Innovation	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_12.html
IV International Symposium on Tropical Wines and International Symposium on Grape and Wine Production in Diverse Regions	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_10.html
International Symposium on Sustainable Management in the Urban Forest	17/08/2014	Australia	Brisbane	http://www.ihc2014.org/sympos ium_33.html
VIII International Symposium on Kiwifruit	18/09/2014	China	Dujiangyan city, Chengdu	http://www.kiwifruit2014.com
VI Balkan Symposium on Vegetables and Potatoes	29/09/2014	Croatia	Zagreb	
III Asia Pacific Symposium on Postharvest Research, Education and Extension: APS2014	08/12/2014	Vietnam	Hochiminh City	http://www.aps2014.vn/
International Symposium on Medicinal Plants and Natural Products	16/03/2015	Colombia	Bogotá	http://phytoessence.org/ISMPNP 2015
II International Workshop on Bacterial Diseases of Stone Fruits and Nuts	21/04/2015	Turkey	Izmir	
III International Conference on Quality Management in Supply Chains of Ornamentals (QMSCO 2015)	01/05/2015	Iran	Shiraz	http://www.qmsco2015.com/
VII International Symposium on Edible Alliaceae	25/05/2015	Turkey	Bursa	
XVIII International Symposium on Horticultural Economics and Management	31/05/2015	Sweden	Alnarp	
XI International Rubus and Ribes Symposium	21/06/2015	United States of America	Asheville, NC	http://www.rubusribes2015.com
XVI International Symposium on Apricot	29/06/2015	China	Shenyang City	

Breeding and Culture			(Liaoning Province)
Greensys 2015 - International Symposium on New Technologies and Management for Greenhouses	19/07/2015	Portugal	Evora
Annual Conference of the American Society for Horticultural Science	04/08/2015	USA	New Orleans
II International Symposium on Pyrethrum	06/08/2015	Japan	Kyoto
II International Symposium on Mycotoxins in Nuts and Dried Fruits	08/09/2015	Nigeria	Abuja
III Balkan Symposium on Fruit Growing	16/09/2015	Serbia	Belgrade
IX International Symposium on Artichoke, Cardoon and their Wild Relatives	28/09/2015	Argentina	La Plata
III International Symposium on Biotechnology of Fruit Species	01/05/2016	Turkey	Antalya
XII International Symposium on Flower Bulbs and Herbaceous Perennials	28/06/2016	China	Kunming
Annual Conference of the American Society for Horticultural Science	08/08/2016	USA	Atlanta
HortiModel2016: Models for Plant Growth, Environmental Control and Farm Management in Protected Cultivation	19/09/2016	France	Avignon
VI International Chestnut Symposium	26/09/2016	Turkey	Atakum, Samsun
VI International Symposium on Tropical and Subtropical Fruits	26/09/2016	Egypt	Kafr El- Sheikh
VIII International Symposium on Mineral Nutrition of Fruit Crops	04/10/2016	Turkey	Sanliurfa
IX International Congress on Hazelnut	15/08/2017	Turkey	Atakum, Samsun

Greensys 2017 - International Symposium on High Technology for Environment Engineering, Energy-Saving and Crop	20/08/2017	China	Beijing	
Management in Greenhouse				
Systems				

This is an abbreviated list compiled from the ISHS (<u>http://www.ishs.org/calendar/</u>) and the ASHS (<u>http://ashs.org/index.php?option=com_wrapper&view=wrapper&Itemid=55</u>), see these societies for a more complete list.

Happy Holidays to the CSHS members from your Executive

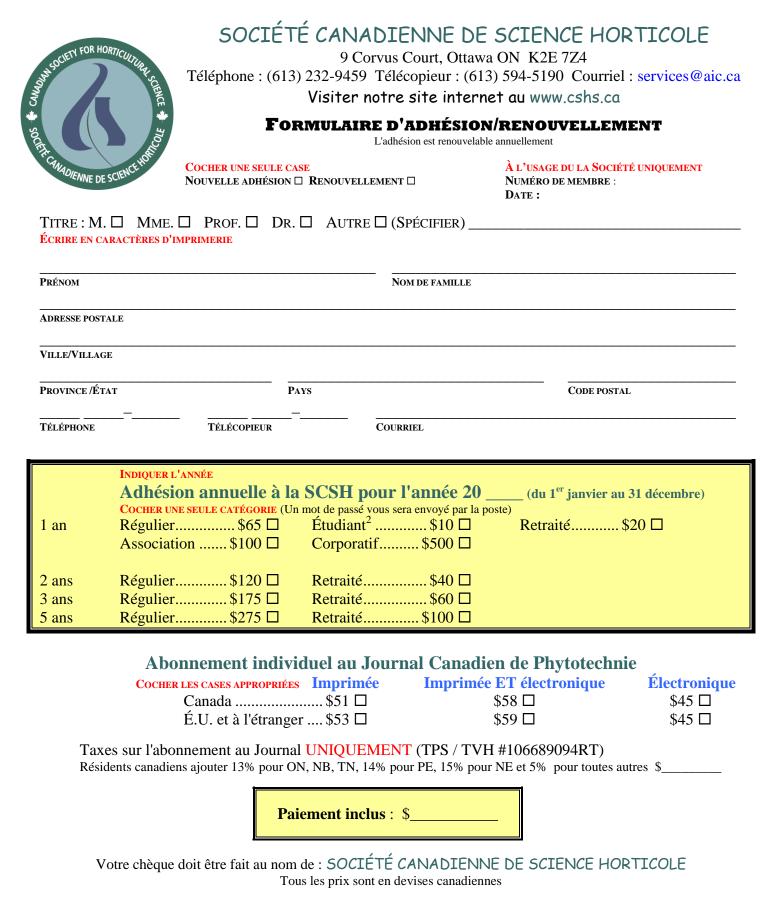


Bob Bors Denis Charlebois Marie Thérèse Charles Samir Debnath Diane Edwards Kris Prushi Karen Tanino Laura Van Eerd



Contact us For more information or for membership forms, contact the executive or: Diane Edwards, Ph.D., P. Ag. Secretary-Treasurer of CSHS, <u>edwardsd@ucalgary.ca</u>

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La Société vous remercie de votre appui

² Le statut d'étudiant doit être confirmé par le superviseur. Nom Signature 16/12/2013