



*Jan and Robert Hall receive a Certificate of Appreciation, for their contributions to CPS-SCP, from President Greg Boland.*

Montreal in August 1999. In this symposium, plant pathologists, military intelligence and criminal experts summarized current knowledge in these areas and brought to our attention the need for awareness of, and effective measures against, crop bioterrorism. Following this symposium, I remember many of us being shocked by the discussions and our newly realized awareness of such issues. Who would have predicted how soon our awareness would be called upon? In addition to the risks

## Inside this issue:

### President's Message

*Greg Boland*

### Terrorism and Plant Pathology

There have been many changes in the world since my last message in *CPS-SCP News*, and the world is now more aware than ever of the dangers of international terrorism. The recent anthrax attacks in the US have reminded me several times of the Anti-Crop Bioterrorism and Food Security Symposium that was held at the joint Annual Meeting of the American and Canadian Phytopathological Societies in

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associated with human and animal pathogens, I have read several articles in recent weeks on the potential risks of selected plant diseases and pesticides in biological and chemical terrorism. These issues are perhaps a sobering reminder of the importance of plant pathology in global food safety and security, and our responsibility to remain aware of such issues and risks.

### Regional Associations of CPS-SCP

All of the changes in recent months have also made travel in Canada more challenging, and two trips in support of CPS-SCP activities and meetings that I had planned in recent months were unexpectedly cancelled. The first cancellation occurred on 12 September, the day after the World Trade buildings were attacked in New York. The second trip was cancelled the day after Canada 3000 went into receivership. One of my colleagues recently suggested that, due to my apparent poor timing and choices with such things, I should stay away from the stock market! At any rate, I extend my apologies to members of the Alberta and Manitoba Regional Associations for not being able to attend their annual meetings this year due to scheduling conflicts and cancelled air tickets.

I was able to attend the Saskatchewan Regional Association of CPS-SCP on 29 November 2001 and thoroughly enjoyed the opportunity to visit with this large and active group of researchers interested in plant pathology in Saskatchewan, and to revisit the AAFC Saskatoon Research Station where I spent sabbatical in 1997. In particular, I would like to thank Coreen Franke, Chair of this Regional Association, and Karen Bailey, CPS-SCP President-Elect, for their invitation and hospitality while I was in Saskatoon.

### Appreciating CPS-SCP Member's Contributions

I recently had the opportunity to present Jan and Robert Hall with a Certificate of Appreciation for their contributions to CPS-SCP through management of the institutional subscriptions for the *Canadian Journal of Plant Pathology* (see photo). This year the CPS-SCP Board approved the transfer of these subscriptions from Jan and Bob to the NRC Research Press, who

also publish our journal. Jan and Bob have managed these subscriptions for more than a decade and provide an excellent example of how CPS-SCP members

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*"Jan and Bob [Hall] have managed [CJPP subscriptions] for more than a decade and provide an excellent example of how CPS-SCP members can contribute to the success of our Society."*

can contribute to the success of our Society. Bob Hall has made numerous contributions to CPS-SCP, including serving as President of CPS-SCP in 1987-88, and we sincerely thank Jan and Bob for their commitment to managing the journal subscriptions for such a long period.

### Canadian Journal of Plant Pathology

Zamir Punja, Editor of the *Canadian Journal of Plant Pathology* (CJPP) recently announced that electronic publication of the CJPP is now available on the internet at <http://www.nrc.ca/cisti/journals/>. [Follow the links to **Affiliated Journals, Ed.**] This is a big accomplishment for CPS-SCP and the CJPP, and I congratulate Zamir and the NRC Research Press in accomplishing this objective so quickly. The CJPP will be freely available to everyone with access to the internet for one year and, thereafter, will be available to CPS-SCP members only by password-restricted access.

I would also like to point out another milestone for the CJPP. The Journal Citation Index of the CJPP has been steadily increasing in recent years and made a large jump from 1998 to 1999. As of 1999, the most recent year available in our library, the CJPP had a higher impact factor than *Plant Disease*. This certainly represents a

significant contribution by our Society and I would like to congratulate the authors, section editors and editors of our journal that have contributed to this success.

### **Science Policy in Canada**

In the newsletter of the National Sciences and Engineering Research Council of Canada (NSERC), it was recently announced that the federal government has made a commitment to move Canada from 15<sup>th</sup> place to 5<sup>th</sup> place among the most competitive and innovative countries of the world by the year 2010, as measured by the relative importance of research and development (R&D). Such a commitment to R&D in Canada would be of historic importance and will require considerable improvements and increases in personnel, funding and infrastructure. All of this also comes at a time when other countries are undoubtedly pursuing similar goals and objectives. Given the relative importance of plants, plant health and plant pathology to the national economy, I am hopeful and confident that plant pathologists in Canada will be provided with the opportunity to make a substantial contribution to this new national objective.

### **Other CPS-SCP Activities**

There are numerous other activities that members of CPS-SCP are currently working on. The Local Arrangements Committee, headed by Larry Kawchuk, is currently preparing for our Annual Meeting at Waterton Lakes, Alberta in June 2002. Preliminary information has already been posted to our CPS-SCP website at <http://www.cps-scp.ca/watertonlakes.htm>, including links to park and tourism websites. Publication of a revised edition of *Diseases of Field Crops in Canada*, headed by Karen Bailey, is progressing on schedule in anticipation of our annual meeting. The September and December issues of the *CJPP* have been completed by Zamir Punja and the NRC Research Press, and are now available through the internet or in hard copy. Robin Morrall is currently coordinating the 2001 issue of the *Canadian Plant Disease Survey* and, if you received this

newsletter, David Kaminski will have successfully completed the December issue of *CPS-SCP News*. CPS-SCP committees are working on the various objectives that I outlined in the last issue, including a proposal to co-sponsor a national workshop on microbial genetics resources and culture collections in Canada, and a revision of the teaching resources section of the CPS-SCP website. All in all, it is a busy year with CPS-SCP activities.

### **CPS-SCP Membership Renewals**

I also take this opportunity to remind all CPS-SCP members that annual memberships are due for renewal by 1 January 2002. Gayle Jespersen, the CPS-SCP Membership Secretary, has recently mailed the notices and forms, which are also available on our CPS-SCP website. Please remember that there is a late renewal fee this year of \$15 for members who renew after 31 January 2002.

### **Mot du président**

*Greg Boland*

### **Terrorisme et phytopathologie**

Le monde a beaucoup changé depuis mon dernier message dans le *CPS-SCP News* et les gens se rendent maintenant compte plus que jamais des dangers du terrorisme international. Les attaques récentes à la maladie du charbon aux É.-U. m'ont plusieurs fois rappelé le colloque sur l'agrobioterrorisme et la sécurité alimentaire qui a été tenu à Montréal en août 1999, lors de la réunion annuelle conjointe des sociétés américaine et canadienne de phytopathologie. Lors de ce colloque, les phytopathologistes, les experts des services du renseignement militaire et les criminalistes ont récapitulé les connaissances actuelles sur le sujet et ont sensibilisé l'assistance au besoin d'une prise de conscience de l'agro-bioterrorisme et de mesures pertinentes pour le contrer. Après ce colloque, je me rappelle que bon



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nombre d'entre nous étions bouleversés par les discussions et par notre nouvelle prise de conscience de tels enjeux. Qui aurait prévu que notre sensibilisation nous servirait si tôt ? En plus des risques associés aux micro-organismes pathogènes humains et animaux, j'ai lu plusieurs articles au cours des dernières semaines sur les risques potentiels de terrorisme biologique et chimique que présentent certaines maladies végétales et certains pesticides. Ces questions sont peut-être un sérieux rappel sur l'importance de la phytopathologie dans la sûreté et la sécurité alimentaires mondiales, et sur la responsabilité que nous avons d'être au courant de tels problèmes et risques.

### **Les associations régionales de la CPS-SCP**

Les événements des derniers mois ont également rendu le voyage au Canada plus intimidant et deux voyages, pour des activités et des réunions de la CPS-SCP, que j'avais projetés ces derniers mois ont été annulés inopinément. La première annulation s'est produite le 12 septembre, le lendemain des attaques sur les édifices du World Trade Center à New York. Le deuxième voyage a été annulé le lendemain de la mise sous séquestre de Canada 3000. En raison de ma mauvaise performance en matière de synchronisation et de choix dans mes déplacements, un de mes collègues m'a récemment suggéré de rester loin du marché boursier !

En tout cas, j'offre mes excuses aux membres des associations régionales de l'Alberta et du Manitoba pour n'avoir pu assister à leurs réunions annuelles de cette année à cause de conflits d'horaire et de billets d'avion annulés.

Je fus capable d'assister à la réunion de l'Association régionale de la Saskatchewan de la CPS-SCP le 29 novembre 2001 et j'ai grandement apprécié l'occasion de rencontrer ce grand et actif groupe de chercheurs intéressés à la phytopathologie en Saskatchewan, et de visiter à nouveau le Centre de recherches d'AAC à Saskatoon où j'ai passé une année sabbatique en 1997. En particulier, je veux remercier Coreen Franke, présidente de cette association régionale, et Karen Bailey, présidente désignée de la CPS-SCP, pour leur invitation et leur hospitalité durant mon séjour à Saskatoon.

### **Notre appréciation pour la contribution spéciale de membres de la CPS-SCP**

J'ai récemment eu l'occasion de présenter un certificat d'appréciation à Jan et Robert Hall pour leur contribution spéciale à la CPS-SCP dans le dossier de la gestion des abonnements institutionnels pour la *Revue canadienne de phytopathologie* (voir la photo). Cette année, le conseil de la CPS-SCP a approuvé le transfert de ces abonnements, qui étaient sous la responsabilité de Jan et Bob, aux Presses

scientifiques du CNRC qui publient également notre revue. Jan et Bob ont géré ces abonnements durant plus qu'une décennie, ce qui est un excellent exemple de la façon dont les membres de la CPS-SCP peuvent contribuer au succès de notre Société. Bob Hall a contribué à de nombreuses occasions à la CPS-SCP, y compris comme président de la CPS-SCP en 1987-88, et nous remercions sincèrement Jan et Bob de leur engagement dans la gestion des abonnements de la *Revue* durant une si longue période.

### **La Revue canadienne de phytopathologie**

Zamir Punja, directeur scientifique de la *Revue canadienne de phytopathologie (CJPP)* a récemment annoncé que la publication électronique du *CJPP* était maintenant réalisée dans l'Internet à <http://www.nrc.ca/cisti/journals/>. [Suivez les liens au **Revue affiliées, Ed.**] C'est une grande réussite pour la CPS-SCP et le *CJPP*, et je félicite Zamir et les Presses scientifiques du CNRC pour avoir atteint cet objectif si rapidement. Le *CJPP* sera disponible gratuitement pendant une année pour tous ceux ayant un accès Internet et, par la suite, pour les membres de la CPS-SCP seulement par accès contrôlé par mot de passe.

Je veux également mentionner une autre étape importante pour le *CJPP*. L'indice de citation (Journal Citation Index) du *CJPP* a constamment augmenté ces dernières années et a fait un grand saut de 1998 à 1999. En date de 1999, l'année répertoriée la plus récente, le *CJPP* a eu un facteur d'impact plus élevé que *Plant Disease*. Il s'agit certainement d'une contribution significative de notre Société et je félicite les auteurs, les directeurs de section et les directeurs scientifiques de notre revue qui ont contribué à ce succès.

### **Politique scientifique au Canada**

Dans le bulletin d'information du Conseil de recherche en sciences naturelles et en génie (CRSNG), on a récemment annoncé que le gouvernement fédéral avait pris l'engagement de faire passer, avant 2010, le Canada de la 15<sup>e</sup> à la 5<sup>e</sup> place parmi les pays les plus concurrentiels et

les plus innovateurs du monde, tel que mesuré par l'importance relative de la recherche et du développement (R-D). Un tel engagement envers

la R-D au Canada est historique et exigera des améliorations et des augmentations considérables de personnel, de financement et d'infrastructures. Tout ceci se produit à un moment où d'autres pays poursuivent également des buts et des objectifs semblables. Étant donné l'importance relative des plantes, de la santé des plantes et de la phytopathologie pour l'économie nationale, je suis plein d'espoir et confiant que les phytopathologistes du Canada auront l'occasion de contribuer substantiellement à ce nouvel objectif national.

### **Autres activités de la CPS-SCP**

Il y a de nombreuses autres activités auxquelles travaillent actuellement les membres de la CPS-SCP. Le Comité local d'organisation, dirigé par Larry Kawchuk, prépare actuellement notre réunion annuelle de juin 2002 à Waterton Lakes en Alberta. L'information préliminaire a déjà été placée sur le site Web de la CPS-SCP à <http://www.cps-scp.ca/watertonlakes.htm>, y compris des liens pour des sites Web sur le parc des Lacs-Waterton et le tourisme. La publication d'une édition révisée de *Diseases of Field Crops in Canada*, dirigée par Karen Bailey, progresse dans les délais en prévision de notre prochaine réunion annuelle. La préparation des numéros de septembre et

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*“Jan et Bob [Hall] ont géré [abonnements de la Revue canadienne de phytopathologie] durant plus qu'une décennie, ce qui est un excellent exemple de la façon dont les membres de la CPS-SCP peuvent contribuer au succès de notre Société.”*

de décembre du *CJPP* a été complétée par Zamir Punja et les Presses scientifiques du CNRC, et sont maintenant disponibles dans l'Internet et en version imprimée. Robin Morrall coordonne actuellement l'édition 2001 de *l'Inventaire des maladies des plantes au Canada* et, si vous avez reçu le présent bulletin, David Kaminski aura réussi à terminer le numéro de décembre du *CPS-SCP News*. Les comités de la CPS-SCP travaillent sur les divers objectifs que j'ai brièvement décrits dans le dernier numéro, y compris une proposition sur la tenue conjointe d'un atelier national sur la génétique des micro-organismes et les collections microbiennes au Canada, et une révision de la section sur les ressources pour l'enseignement du site Web de la CPS-SCP. Bref, c'est une année chargée d'activités pour la CPS-SCP.

### **Renouvellement de l'adhésion à la CPS-SCP**

Je profite également de l'occasion pour rappeler à tous les membres de la CPS-SCP que le renouvellement annuel de l'adhésion est exigible au 1 janvier 2002. Gayle Jesperson, la secrétaire à l'adhésion de la CPS-SCP, a récemment expédié les avis et les formulaires qui sont également disponibles sur le site Web de la CPS-SCP. Veuillez vous rappeler que, cette année, il y a des frais supplémentaires de 15 \$ pour renouvellement en retard pour les membres qui le feront après le 31 janvier 2002.



After 8 years of service as the Representative for the Manitoba region of CPS-SCP, **Randy Clear** (right) passes that responsibility to his successor, Fouad Daayf (left)

## **Regional Meetings**

### **An Eastern Ontario Event**

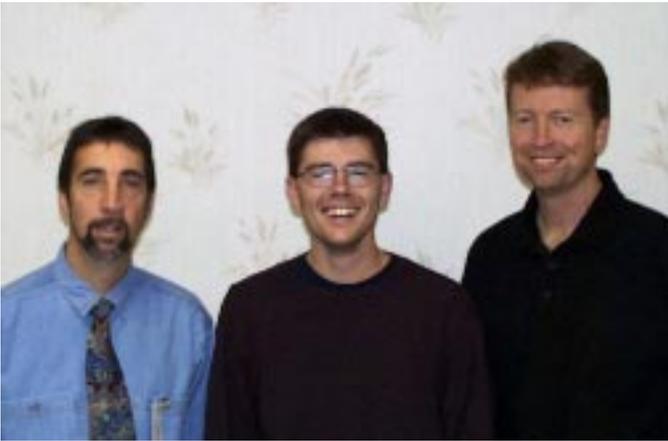
The second Canadian Workshop on Fusarium Head Blight - Colloque canadien sur la Fusariose (CWFHB/CCF) was held at the Ottawa Congress Centre, Ottawa, ON, Canada, Nov. 3-5, 2001. (<http://res2.agr.ca/ecorc/fusarium01>).

The workshop sessions included many areas, from *Fusarium* species identification to progress in breeding and genetic resources, toxicology and impact on industry, epidemiology, pathology and control strategies, and finally markers and gene expression. Fusarium head blight in cereals and Fusarium ear rot in corn are on the rise across Canada and many questions still remain to be answered. The biodiversity of sources of resistance to Fusarium head blight in cereals was highlighted with the need to better understand the various resistance mechanisms. *Fusarium graminearum* remains the most common cause of the disease but other toxin producing *Fusaria* such as, *F. sporotrichioides* and *F. avenaceum* are on the rise and may need more attention in the future.

Bernard Vigier, Eastern Ontario Rep.

### **Manitoba**

On November 14, 2001, 36 people attended the Manitoba regional meeting of the CPS. The meeting was held at the AAFC Cereal Research Centre in Winnipeg. It began at 8:30 and ended at 3:30 PM, in spite of several technical difficulties. CPS president, Greg Boland, had planned to attend the meeting but had the misfortune of purchasing a ticket with Canada 3000. He forwarded 3 items of interest which were given at the business session. A record 5 student papers were presented and judged. Thanks to the judges Steve Haber, Tom Fetch, and a familiar new comer to the province, David Kaminski. Student paper awards were handed out at lunch.



**Colin Hiebert** (center) received the award for best student paper at the MB Regional CPS-SCP meeting. He is flanked by Randy Clear (left) and his supervisor, Brent McCallum (right).

**Colin Hiebert** won with his presentation of “Determining the chromosomal location of the wheat leaf rust resistance gene *LrW*.” **Sarah Savchuk** finished 2<sup>nd</sup> with “Microscopic and Greenhouse Evaluation of Biological Control of *Sclerotinia* on Canola.” Third place went to **Rajesh Ramarathnam** for “Screening for potential biocontrol agents of the blackleg pathogen of canola, *Leptosphaeria maculans*.” Excellent presentations were also given by Robert Duncan and Charlotte Hoorne. Three of the 5 presenters were students of **Dilantha Fernando** who made a special effort to encourage his students to attend and present. Presentations were also made by Dilantha Fernando, C. Chen, David Kaminski, Debbie McLaren, Steve Haber, Zhuping Yang, and Tom Fetch.

The meeting began with the disease situation report. Steve Haber, Brent McCallum, Jim Menzies, Andy Tekauz, Tom Fetch, James Chong, Gray Platford, Khalid Rashid, and David Kaminski (on behalf of Debbie McLaren who had to arrive later) presented the 2001 disease situation. Hopefully, the text of all will be found in the upcoming *Canadian Plant Disease Survey* that can be found on the CPS website.

### Business

1) A motion presented by Jim Menzies and seconded by Brent McCallum was passed. The motion reads: “At future Manitoba Regional CPS meetings it is requested

that attending non-student members of CPS voluntarily contribute money to pay for the lunch of students participating in the student paper competition.”

2) Richard Marsh, Syngenta’s Technical Field Manager for the eastern prairies offered to sponsor future Student Paper Awards. Thank you to Richard and to Syngenta.

3) After 8 years as regional CPS representative Dr. **Randy Clear** stepped down and Dr. **Fouad Daayf** took over the position (email: daayff@ms.umanitoba.ca).

Respectfully submitted,

Randy Clear  
Manitoba Regional Rep.

### Saskatchewan, 2001 Annual Meeting

The annual meeting of the Saskatchewan Regional group of the Canadian Phytopathological Society was held on November 29, 2001, in conjunction with the Saskatchewan Advisory Council on Crop Protection (SACCP) - Disease Sub-council annual meeting. For the third year in a row, more than 65 scientists, graduate students, technicians, extension personnel and industry representatives filled the board room at the Agriculture and Agri-Food Canada (AAFC) Saskatoon Research Centre for a very interesting and informative day.

In the morning, the SACCP session provided participants with disease situation, survey and research update reports for the province. The afternoon CPS session began with introductions and a warm welcome by CPS president Dr. Greg Boland, followed by eleven formal scientific presentations and seven poster presentations. Presenters were research scientists, technicians, industry representatives, graduate students, and one undergraduate student. Robin Morrall affably pointed out that an undergraduate presentation was a “first” for a Saskatchewan Regional CPS meeting and congratulated the presenter, Darcy Pawlik, whose talk was titled “Rela-

tive pathogenicity of *Fusarium* species commonly isolated from wheat heads in western Canada.”

The presentations covered a variety of subjects including fusarium head blight, *Stagonospora nodorum* blotch, and gene expression in response to powdery mildew in wheat, and resistance genes and strategies in *Brassica* to *Sclerotinia sclerotiorum* and *Leptosphaeria maculans*. At least four abstracts will be submitted for publication in the *Canadian Journal of Plant Pathology*.

The 2001 winner of the T.C. Vanterpool Prize in Plant Pathology (a University of Saskatchewan prize) was announced in the afternoon meeting. Congratulations to Mohammad Razavi, a Ph.D. student in the Department of Plant Sciences under the supervision of Dr. Geoff Hughes.

Following the meetings, an evening social was held at Chic Peas East Indian Restaurant, where about 20 partakers filled their tummies with spicy food and their heads with good conversation. The meal was followed by a slide presentation by Robin Morrall, who entertained all with pictures and tales of his recent trip to Australia.

Coreen Franke  
Saskatchewan Regional Rep.

## People and Travel

**Joe Kimpinski**, plant nematologist, and **Bert Christie**, retired plant breeder, Agriculture and Agri-Food Canada Crops and Livestock Research Centre, Charlottetown, P.E.I., visited **Claude Caldwell**, crop physiologist and professor, Department of Plant and Animal Sciences, Nova Scotia Agricultural College, Truro, NS, in late May to view his experimental hemp plots. Cooperative work is planned to investigate the soil and plant nematode fauna, and other microorganisms that may be parasitizing or inhabiting the roots or rhizosphere soil of different hemp cultivars.

**Research Activities at the Biological Control of Forest Diseases & Weeds Research Lab** - aka. “*The Shamoun Lab*”- CFS/ PFC Victoria, BC:

1) On September 10-14, 2001, Dr. **Simon Shamoun** and **Tod Ramsfield** - Ph.D. Candidate - UBC, Dept. of Forest Sciences, attended the Western International Forest Diseases Work Conference (WIFDWC) at Carmel, California. Mr. Ramsfield presented a scientific poster entitled: Evaluation of *Colletotrichum gloeosporioides* as a biocontrol agent for lodgepole pine dwarf mistletoe under field conditions. This presentation was co-authored by T.D. Ramsfield, S.F. Shamoun and B. J. van der Kamp

2) On October 22-23, 2001, Dr. Simon Shamoun, his Research Technician **Cheryl Konoff**, his graduate students: Tod Ramsfield, **Jennifer Wilkin** (M.Sc. candidate - UBC/Forest Sciences), **Lea Rietman** (M.Sc. candidate - UBC/Forest Sciences), **Sue Askew** (M.Sc. candidate - UBC/Forest Sciences) and **Grace Sumamong** (M.Sc. candidate - SFU/Biological Sciences) attended the 30th Anniversary of the Canadian Phytophological Society - BC Chapter at UBC Botanical Gardens facility. Simon presented a paper: “Biological Control of Forest Diseases and Weeds: An Update on Research Activities.” Tod presented another: “Assessment of a Biological Control Strategy for Lodgepole Pine Dwarf Mistletoe.”

3) A new International Union of Forestry Research Organization (IUFRO) working group on “Parasitic Flowering Plants of Forest Trees” has been established. For more information about this working group and its activities, please contact Dr. Simon Shamoun (SShamoun@PFC.Forestry.CA), Coordinator- IUFRO Working Group - Parasitic Flowering Plants of Forest Trees.

**Michele Heath** (University of Toronto) was an invited symposium and keynote workshop speaker at the 13th Biennial Australasian Plant Pathology Conference in Cairns, Australia, in September. The Aus-

tralasian Plant Pathology Society is similar in size to the CPS, and it was interesting to hear the Presidential Address focusing on many of the issues that our own society has tried to grapple with. Michele managed to return to Canada despite some tense moments because of the collapse of the Australian national airline just after she arrived, and the air travel turmoil in the aftermath of September 11th.

**Dr. Dilantha Fernando**, Plant Pathologist with the University of Manitoba spent two weeks in China, at the invitation of two universities in Central and Southern China respectively. Dilantha was an invited speaker at the International Symposium on Rapeseed Science, held in Wuhan, China. He gave two presentations related to his research in canola pathology, the first titled, "Breeding for Disease Resistance: Blackleg Disease in Canola - a case study", and the second, "Biological Control of Sclerotinia in Canola." While in Wuhan, he was a guest of Huazhong Agricultural University.

On the second leg of his trip he was a guest of South West Agricultural University in Chongqing, and delivered a lecture on Integrated Pest Management of Canola Diseases, visited farmers fields, and had discussions with research scientists, and the Foreign Office of the university in developing a collaborative research program between the two universities on canola and wheat research. Fernando's trip was funded by Canadian International Development Agency under the CIDA/SULCP project, Huazhong Agricultural University, Wuhan, and by South West Agricultural University, Chongqing, China.

**Richard Hamelin** (Natural Resources Canada - Quebec) was opponent for a Ph.D. defense at the University of Helsinki, Finland. The defender, Risto Kasanen, studied under Prof. Kim Von Weissenberg in the department of Plant Science. The title of his thesis was: "Relationship between *Cronartium flaccidum* and *Peridermium pini*." Richard had a chance to renew his friendship with his hosts, as well as enjoy two of his favorite Finnish traditions: sauna and beer. He also attests that the Finns really do throw the best post-defense parties!

Two forest pathologists, **Louis Bernier** (Université Laval) and Richard Hamelin, attended the Biocontrol network meeting in Niagara along with other plant pathologists and entomologists. They presented an update on their project on biocontrol of diseases in nurseries and plantations. Louis was also brave (crazy?) enough to jog every morning at 0700 with Peter Krell, even though he was nursing a cold - talk about dedication!

#### **PEI Department of Agriculture & Forestry, Plant Health Research and Diagnostics**

Using a systems approach to exploring plant health and sustainable agriculture, the PEI Department of Agriculture & Forestry, Plant Health Research and Diagnostics group is examining the microbial components of soil health and community structure in disease suppressive soils, and within healthy and diseased plants. Current research projects include:

- i) mapping and monitoring the health and quality of Prince Edward Island soils;
- ii) identifying the benefits to potato crops of soil microbial biodiversity and functional versatility under long crop rotations and conservation tillage practices;

- iii) determining whether metalaxyl resistance in *Phytophthora erythroseptica* strains (causal agent of pink rot of potatoes) is developing in the Atlantic region;
- iv) the characterization of soil microbial communities in scab resistant and scab susceptible soils; and v) a survey of the aphid vectors of the potato viruses PVY-O and PLRV.

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**Henry Huang** attended the International Symposium on Biological Control of Plant Diseases for the New Century, at the National Chung-Hsing University, Taichung, Taiwan, November 11-16, 2001. He delivered a keynote speech, co-chaired the first session on "Biological Control of Plant Diseases", and presented a paper entitled "Biocontrol of plant disease: from research to practical application." Other sessions at the Symposium were: Development and Application of Fungal Antagonists; Development and Application of Bacterial Antagonists; Cultural Practices and Disease Management; Induced Disease Resistance; and Breeding and Genetic Engineering for Disease Resistance.

### **Progress on the Revisions to *Diseases of Field Crops in Canada***

The goal of completing the revision to DFCC by early next year is close to being on schedule. The Editorial Group, consisting of Robin Morrall, Bruce Gossen, Richard Gugel and myself, has been working through this (sometimes) demanding process. So far, our heads remain above water, with only the occasional dunking. The

committee has been meeting at monthly intervals (each meeting concludes over beer at the faculty club, "Another pitcher of Rickard's, please"). About 80% of all material has been received to date. We have reviewed much of the text and returned the drafts back to the chapter editors for final comment. Several new line drawings have been added and the slides that have been received have been digitized. However, there are still some gaps in the slide collection. In January, CPS members are likely to get an urgent call to look in their personal collections for slides to fill the remaining gaps; Richard will keep you posted.

We are investigating the pros and cons of using a printing company vs a publishing company, and getting cost estimates. A fund raising campaign was started to keep the cost of this book low. So far, it has brought in \$9,700. It would be gratifying if CPS members could encourage their employers to help us raise as much money as possible. Ask Robin if you want to know who in your company or institution received the fund raising letter.

Many thanks to all of you who have contributed their enthusiasm and energy to get this project completed on time.

### **New CPS Brochures - Give one to a friend!**

The CPS brochure was reprinted this year to update changes in our fee structure and improve upon its design. A new membership application card was also created that can be inserted into the brochure. A sample of each are enclosed with the newsletter.

Help promote our Society by giving the brochure and membership card to a colleague that might have an interest in joining. If you are going to meetings and want to take several brochures to put on display, send me an email (baileyk@em.agr.ca) and I will ship them to you.

Submitted by,  
Karen Bailey

## 2002 Annual Meeting of CPS

### Waterton Lakes National Park

#### Introduction:

The 2002 Annual Meeting of the Canadian Phytopathological Society (CPS) will be held from Sunday June 16 through Wednesday June 19, 2002, at Waterton Lakes National Park, Waterton, Alberta. The society will offer various social functions, scientific presentations, events and field trips.

#### Location:

We are fortunate indeed to be holding our 2002 Annual Meeting in the Waterton Lakes National Park. According to the park website, "Rugged, windswept mountains rise abruptly out of gentle prairie grassland in spectacular Waterton Lakes National Park of Canada. This landscape supports a great variety of plant life and habitat for wildlife such as bison, deer, moose, elk and bears. The park is home to Upper Waterton Lake, the deepest lake in the Canadian Rockies. In 1932, the park was joined with Montana's Glacier National Park to form the Waterton-Glacier International Peace Park - a world first."

Waterton Lakes National Park provides extensive recreational opportunities, including: birdwatching, boating, camping, canoeing, climbing and scrambling, cycling, fishing, golf, hiking and backpacking, horseback riding, tennis, sailboarding, scuba diving, swimming, and sightseeing and wildlife.

For more information on Waterton Lakes National Park, please visit: [http://parkscanada.pch.gc.ca/parks/alberta/waterton\\_lakes/](http://parkscanada.pch.gc.ca/parks/alberta/waterton_lakes/) (a bilingual website).

#### Travel Information:

Waterton is approximately 300 km from Calgary and 150 km from Lethbridge. Driving time is approximately 3 hours from Calgary and 1.5 hours from Lethbridge. There are few alternative locations for accommodation outside of the park. Lethbridge would be the nearest alterna-

tive accommodation.

#### Reservations:

**It is essential that Members of CPS make their reservations early** as this National Park is completely booked in June. Information on travel, registration and accommodation will be posted later in 2001.

#### Contact Information:

For further information on this meeting, please contact the Chair of the Local Arrangements Committee, Dr. Larry M. Kawchuk.

L.M. Kawchuk, Ph.D.  
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#### From the Associate Editor

It is membership renewal time again and as I read the membership form, a few thoughts go through my mind (it does happen occasionally).

As you fill out your membership forms, I think that everyone should be proud to be a member of the CPS. We are not large in numbers, but we are a respected society. We are often called upon for our leadership in Canada and elsewhere on issues and topics related to plant pathology. Many Canadian plant pathologists have made large impacts on science and agriculture

and those of us in the CPS are striving to follow in their footsteps. When I look at the list of people who are members of the CPS, I feel fortunate to be associated with everyone, even if only as a member of the CPS.

It is a Canadian custom, however, not to promote ourselves as much as we should. This may be positive in that people who are not in the society find it easy to approach us. However, I do think that there are a few little things which we could do to promote our society a bit more. For instance, when you are filling out your membership forms, give a little thought to the Donations to the CPS part of the form. The awards listed under this section are important to us as a society and to individual members. They help to promote our society and give the recipients a pat on the back for work well done. I have been fortunate enough to have received one of these awards in the past, and it made me feel honoured that my peers would recognize me for some of the work I did. It was a humbling experience. It also served to push me to be a better plant pathologist and not back away from the difficult problems. A donation towards one or all of these awards would help to raise the profile of these awards even more. I do not believe that large donations need to be given (although they never hurt), but if we all gave a little donation, it would be useful. And let us not forget, the donations are tax deductible.

I also think that maybe we should all look around and see if we can support a student by paying for their student membership in the CPS. I do not direct this comment solely at University members, but at all the members. Just because I am not a University employee does not mean that I cannot help a student become a member of the CPS. It helps make our society stronger, and I am sure the students will remember your generosity. I also believe it is useful for the students to be a member of the CPS.

Finally, I would ask that everyone get their

membership forms in to Gayle as quick as possible. This makes her job much easier and at times I am sure the job seems to be thankless. I would like to thank Gayle for taking on this task.

In conclusion, I would leave this thought with you. Renew your membership early and often.

Jim Menzies

## Membership Renewal for 2002

Membership renewal forms were mailed in the third week of November. If you have not received your form, please contact the membership secretary, or visit the CPS website at: <http://www.cps-scp.ca/application.htm> and print off a form. Online forms are available in both html and pdf format. Note that membership fees have increased by \$10.

Please be aware that there is now a late fee of \$15 for membership renewals received after January 31st. This fee was approved at the 2001 annual meeting in London. The late fee is necessary because of the large number of members who did not renew on time, resulting in administrative problems and increased costs.

## CPS Update E-mail Bulletins

I wanted to say a few words about the e-mail bulletins that have become a more regular feature this year. The news bulletins were prepared by the CPS executive for mass emailing by the membership secretary. This, of course, is not a glitch-free process! There have been many problems with compatibility of email programs and systems, and I thank you for your patience. If you are not able to open the announcements, please contact me and I'll try to resolve the issue. The email bulletins are sent in plain text format, as a simple email with no attachments. However many people (especially on AAFC systems) were receiving blank emails with attachments that are difficult to open. After much testing, we discovered that the French accents seem to be responsible for this glitch. Re-

moving the accents (apologies to our French speaking members!) results in the emails going through normally. There may still be some "encoding" problems with older email systems, and these are more difficult to resolve but not impossible. If you are not receiving the e-mail bulletins, and have an email address, please forward your address to the membership secretary. There are at least a dozen "dead" addresses every time I send out a bulletin or announcement. For those who would rather read a nicely formatted version of the news bulletin, they will also be placed on the CPS website.

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### **Brazil nuts help preserve the Amazon forests and provide an income for its Aboriginal people.**

*Lu Piening*

Rotarian Dr. Lu Piening, a volunteer with Canadian Executive Services Organization (CESO) and Rotary International has recently returned with his wife Joan from 10 weeks in Cobija, in the rain forests of northern Bolivia. Lu's job was to conduct a feasibility study into developing technologies to reduce aflatoxins in harvested Brazil nuts.

CESO is a volunteer-based, not-for-profit organization founded in 1967. The mission of CESO is to promote economic and social development of Aboriginal peoples in Canada and in emerging market economies in developing nations. Emphasis is also placed on improving the quality of life for women and in preserving the environment. CESO provides unpaid qualified volunteers to work as advisers and trainers,

by sharing their knowledge and experiences with clients. Most volunteers are retired or semi-retired and on average bring 30 to 35 years of experience to an assignment. CESO is funded by Canadian corporations, the government and by individuals. The clients also contribute to the cost of the project. Rotary International, which also sends Rotary volunteers to developing countries to assist in economic and social development, also contributed financially to this Brazil nut project.

The Brazil nut is a unique commercial commodity because all Brazil nuts are collected from under wild or indigenous trees growing in the rain forests of the Amazon basin which is shared among Bolivia, Brazil and Peru. Today Bolivia supplies most of the world's Brazil nuts. The forests in the Cobija area and adjacent areas in Brazil contain about three to six Brazil nut trees per hectare. The nuts, which are collected by the indigenous peoples living in the forest, are practically their only source of income.

The Brazil nut tree is one of the tallest trees in the jungle, often 50 or more metres tall. About 15 to 20 nuts, arranged like the segments of an orange, are located within a pod the size of a coconut. The pods fall to the ground from November to March, during the rainy season. There is some danger to the collectors from the falling pods which may weigh 2 kg. The pods, which are very hard and have a thick shell, are opened with a machete to obtain the nuts. The nuts are carried to the collectors homestead for storage and once a sufficient amount is collected, they are carried in sacks, often weighing up to 60 kg, on their backs or by oxen to a road or river for transport to a nut processing factory which is usually a great distance from the collector's homestead. It may take some considerable time to transport nuts from the more remote areas of the forest to market. It is estimated that one-third of all nuts collected rot before reaching the factory. During the storage and transport period in the forests, a fungus, called *Aspergillus* may infect the nuts. The hot,

humid weather favours infection by *Aspergillus*. A powerful aflatoxin that is highly carcinogenic develops in the infected nuts. Current health concerns over the consumption of a range of food products has led to tough new EU limits that jeopardize many Aboriginal families' livelihood. Bolivian officials feel that the ecological importance of eating Brazil nuts has not been sufficiently emphasized. The economic benefits from collecting the nuts has helped preserve some of South America's last virgin forests. The EU markets will not import nuts with more than 4 ppb (parts per billion) of aflatoxins while the US markets have set a limit of 20 ppb. The Bolivians further claim that the EU's stringent levels of 4 ppb cannot be justified because the low level of Brazil nut consumption in the average European diet makes any risk negligible. This fungus therefore represents a real threat to the livelihood of the Aboriginal peoples of the Amazon forest.

Piening developed research plans to study the *Aspergillus* infection of Brazil nuts. He also suggested plans for the construction of a field station in which to study factors affecting the development of the *Aspergillus* fungus in the nuts. The primary aim of the research is to prevent fungal infection by better drying methods, reducing the time from collecting to markets, sanitation of storage and transport facilities and evaluating nontoxic antifungal substances on stored nuts. Piening has enlisted the help and cooperation of interested researchers in Peru, Brazil and the University of Georgia, USA, to develop better methods of testing for aflatoxins.

The Aboriginal people of the Amazon forests are primarily extractivists, who make a living by collecting products such as rubber, Brazil nuts and some local fruits and vegetables (such as palm hearts) from the jungles. Rubber was once the major source of income for these peoples but, following WW II, rubber was produced more cheaply on plantations in Malaysia. Consequently the Aboriginal peoples of the Amazon have only the Brazil nut as a major source of income. Agriculture is not a

practical option on the fragile, nutrient-poor, thin forest soils and the local people also are not agriculturists. Much of the cleared land in the Amazon has been turned into cattle ranches. Raising cattle on this land is inefficient when compared with cattle ranches in southern Brazil, Argentina and North America because of the low nutritional value of the grass. Authorities in Bolivia, Brazil and Peru are encouraging an agro-forestry industry where the Aboriginal peoples can obtain a greater economic return from the forests than can be obtained from cattle ranching. The Brazil nut trees present such an opportunity. Forests are generally not cut down if there is a significant stand of Brazil nut trees. Brazil nut trees can be grown in plantations where they produce few nuts because of pollination problems. The pollinating bee does not generally pollinate trees outside of a forest setting where the bees can obtain nectar from other forest plants such as orchids. The Brazil nut tree is also dependant on a small rodent called the agouti to help in the distribution and generation of new trees. The fallen pods are opened by the sharp teeth of the agouti which is very fond of the oil rich nuts. The agouti will bury some nuts for future eating but sometimes forgets where they are buried. These nuts germinate in a year or so.

The need for new technologies to prevent aflatoxin production so as to maintain and encourage the Brazil nut industry is readily apparent.

Brazil nuts can save the Amazon rain forests and provide aboriginal peoples with an income. A secure income will discourage cutting of the forest for lumber or the slashing and burning of the forests for some quick cash from outsiders trying to grow crops on nutrient starved soils.

## Winds of Change

*Solke H. De Boer*

Historians will no doubt consider the millennial year as a convenient demarcation between the modern and postmodern eras. Of course, changes take place slowly and one cannot with accuracy delineate the beginning of an age, witness the progression of the Age of Enlightenment and the unfolding of the Modern Age, and so it is with the Postmodern Age. It has crept up on us, but the year 2000 marks a fitting point of reference to acknowledge its arrival.

Postmodernism characterizes a fundamentally different mind set than modernism in respect to many facets of our society and culture. Postmodern thought rejects absolutes and authorities, it redefines principles of family structure and etiquette, and most relevant to our profession, *it has lost faith in science*. Humanity's response to the failure of modernism is varied and acute. Ironically, it has resulted in both increased materialism and increased spirituality, perhaps the clash of which we witnessed on that terrible day of September 11. But on to science - postmodernity has not rejected it, just lost faith in it. We see it in the battle over genetically modified plants, the debate over stem cell research, and in the dearth of graduate students in science.

In our lifetime science has come of age. Cause and effect is a firmly entrenched principle, the mystery of life is less mysterious, and somehow all the universe can be described in terms of subatomic particles. The human genome has been sequenced, more or less, and so have the genomes of plants and bacteria and fungi and nematodes. We now have a handle on the very basis of life - everything is possible now, or is it? Relatives and friends still die of cancer, drought and disease still threaten our food supply, and our world is not a safe place to live. Somehow science has not been the panacea that modernists thought it might be; it has not solved all our problems. And hence soci-

ety no longer supports scientific efforts as it once did.

Our managers try to run science as a business, success is counted in number of manuscripts and perhaps more importantly in the dollars brought to our institutions. Indeed things have changed and will continue to change. There will be a need for less science and fewer scientists. The efforts of "science" are increasingly devoted to address political and economic issues. Recent new disease occurrences have had a greater impact on domestic economies and international trade than actual food resources. One only needs to be reminded of karnal bunt, plum pox, potato wart, and type A2 potato blight. Also note how the agenda of the 2001 annual meeting of the American Phytopathological Society focused less on knowledge and more on socioeconomic topics.

What a shame that now we have genomic sequences, a handle on quorum sensing, *hrp* genes and other such exciting advances, that society has lost interest. Can such work continue? Where are we going with our new knowledge? What is our future? There are no answers, of course, but we must keep in mind that there have been difficult times in the past too. The post-war period has been particularly tranquil and favorable to the advance of scientific endeavors. In the current period of retrenchment, we must deal with a new paradigm, to use an overworked phrase. Our society may have lost its interest in scientific advances, but all of us must still eat. The need for a sustained food supply is as great as ever.

Thus there is room for optimism too. There will be an ongoing need for phytopathologists, for men and women who understand the interaction between plants and microorganisms. There will continue to be a level of funding to study the molecular mechanisms of disease causing agents and plant response but increasingly it will be ivory tower work, not in a derogatory sense but in the sense that it is removed from the mainstream of agricul-

ture and the cultivation of food crops. Perhaps we're already down that road further than we think.

Certainly there will be a continuing requirement for field pathologists who know not only about plant diseases but also about agricultural systems - who can speak with growers intelligently about making changes to production systems that work. All too often university professors and research scientists are held in derision by growers because the researchers have failed to understand that their specific knowledge is out of context at the field level and because the growers are unable to comprehend the science being promoted. What is needed are plant pathologists with a "foot in the furrow" as Dr. J. C. Walker, the eminent University of Wisconsin's Professor of Plant Pathology, used to say. Agricultural studies are out of fashion at our universities and biological studies are out of touch but what is needed is education in plant pathology in tandem with relevant fields of biology, ecology, and agronomy. Yes, and there will be a need for specialists too, that can backup and support the front line extension professionals. A realignment of educational priorities and research initiatives will serve our science well if it is focused on being less esoteric and more germane to the needs of the food producing segment of our society.

### Want More News?

Brian Deverall, Editor of the *ISPP Newsletter*, directs you to the latest, December 2001, issue at <http://www.isppweb.org/nldec01.htm>

## Call for Nominations

*Current Executive for 2001-2002*

### CPS/SCP BOARD

President:	Greg J. Boland
President-Elect:	Karen L. Bailey
Vice-President:	Richard A. Martin
Past President:	Roger Rimmer
Secretary:	Ken E. Mallett
Senior Director:	Simon F. Shamoun
Junior Director:	Odile Carisse
Treasurer:	Peter L. Sholberg
Membership Sec.:	Gayle Jespersion

### STANDING COMMITTEES

#### Nominating Committee (5 members)

S. R. Rimmer (Chair), J. G. Menzies, R. D. Peters, P. Hildebrand, Z. K. Punja

#### Awards Committee (5 members)

V. J. Higgins (Chair)

#### Future Meeting Committee (3 members)

A.C. Kushalappa (Chair)

#### Resolutions Committee (3 members)

P. G. Pearse (Chair)

#### Science Policy Committee (5 members)

K. L. Bailey (Chair)

Nominations can be made by society members for Vice-President, Secretary and Junior Director, as well as for positions on the Nominating, Awards, Future Meetings, Resolutions, and Science Policy Committees. *Nominations shall be signed by five members of the Society and by the nominee, and must be received by the CPS/SCP Secretary **before May 10, 2002**, which is six weeks before the Annual General Meeting.*

Respectfully submitted: S. R. Rimmer (Chair), J. G. Menzies, R. D. Peters, P. Hildebrand, Z. K. Punja