# Diseases of Field Crops in Canada Editors: K.L. Bailey, B.D. Gossen, R.K. Gugel & R.A.A. Morrall

#### President's Message

Karen Bailey

Across Canada, spring time has arrived and summer is around the corner, and that brings us into another "plant pathology" season. At this time of the year many of our colleagues get a bounce in their step and a glint in their eye while thinking of what epidemics might arise. In Saskatoon, a few pathologists have

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additional spring to their steps because the new edition of *Diseases of Field Crops in Canada* has gone to press. I am pleased to announce to the membership that the book will be available for sale after June 9, just in time for this year's disease season.

To keep the most important information up front, the book will retail for \$35.00, only a small increase over the previous edition. There are various discounts available to Society members, starting with a *Time Limited Early Bird Special Discount* of 40%. Arrangements have been made with the University of Sas-

katchewan Extension Press Division to store and distribute the book. For details on discounts and ordering information, see another article in this issue of CPS-SCP News.

The third edition of Diseases of Field Crops in Canada has an entirely new look, about 60% more information, including four new chapters, 659 color figures, and several life cycle diagrams. It has a wrap around cover to dis-

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nancial position . . .

play the title prominently on a bookshelf and a coil binding to allow the book to lie open flatly.

Plans are underway to outline a marketing campaign, starting with a Book Launch on June 9 in Saskatoon. This event will kick off the sale of books with special dis-

counts for our sponsors and press releases to agricultural media from radio, television, and print. Of course, the marketing success of the book still depends on support from the membership. We have arrangements with the distributor to continue with consignment sales of the book by our members. If you would like to sell copies of the book to your local producers at a special consignment price, then contact either myself or Robin Morrall. We have printed 8,000 copies . . . who can sell the most?

The project took  $2 \frac{1}{2}$  years to complete. It is the culmination of efforts by more than 100 people who volunteered information and photographs, wrote sections and chapters, and then collated the individual submissions into one cohesive package. There was also an extensive fund-raising campaign led by Robin Morrall, which raised \$34, 950 plus additional in-kind contributions from financial sponsors. Strong support from these individuals and organizations was essential to keeping the retail price of the book very reasonable. These contributions are prominently acknowledged in the book.

Special thanks are given to Ralph Underwood (AAFC, Saskatoon) and Dennis Dyck (Dept. of Biology, University of Saskatchewan) for their photographic and computer-based graphics skills, which were at times nothing short of miraculous! On behalf of the Society, I extend many thanks to the editors of the book, and also my personal gratitude to Robin, Bruce, and Richard, for without them the new edition would still be a wishful thought. Lastly, the Society and the current editors sincerely thank Lloyd Seaman, John Martens, and Tom Atkinson for their vision and energy in creating a successful foundation, for the new Diseases of Field Crops in Canada, with the first

and second editions.

Despite my personal pre-

occupation with finishing the book, the Board and various committees and members have also been quite busy with other activities and issues. Here are few of the most recent highlights:

1) In accordance with the priorities of the Strategic Plan, the Board awarded additional financial support to regional groups and related organizations. The BC regional group hosted a special 2 day symposium on blueberry scorch virus. The Western Ontario Regional group invited Dr. Kang (USA) to speak on the "Molecular analysis of the disease triangle." Sponsorship was given to the 19th Annual Plant Sciences Graduate Student Symposium held in Winnipeg, which is an annual meeting of graduate students studying agronomy, plant breeding and genetics, horticulture, and plant protection from Manitoba, Saskatchewan, and North Dakota. Gavin Graham, a CPS student member, won second place for his presentation on "Effect of pathogen rate and weed growth stage on the synergy of scentless chamomile." CPS also provided financial support to the ICPP 2003 for the meeting in Christchurch, New Zealand. Our support helped them to attract 1300 delegates from more than 70 countries to present 1300 papers. Nearly NZ \$150,000 was raised in bursary funds for 79 delegates from 28 countries.

2) A detailed report on the pro's and con's of CPS participation in Science Fairs was prepared by Jeannie Gilbert as Chair of the Education and Public Awareness Committee. The Board decided that the Society would not receive sufficient public exposure to warrant the financial and time commitments required by the organizers of the National Science Fairs. It was agreed that the Society should first develop a package of plant pathology projects that could be used by teachers to encourage more science fair projects.

- 3) The Awards Committee, chaired by Khalid Rashid, proposed that the Board consider raising the Student Travel Award to \$500. A bylaw change (printed in this issue) will be voted on at the annual general meeting. The committee also spent time designing new forms and procedures for the evaluation of the student presentations. These will greatly simplify and standardize the evaluation process.
- 4) A new committee chaired by Ron Howard was initiated this year to make plans and prepare for the Society's 75th Anniversary in 2004. The Special Events Committee (SPEC) has been busy and recently submitted 6 proposals for the Board to consider. These proposals highlight the Society's past, present, and future and require participation from emeritus, regular, and student members. More information will be disseminated as the plans are solidified.
- 5) CPS attended a meeting on the "Future of Professional Societies" organized by the Canadian Agri-Food Research Council (CARC). This meeting was attended by representatives from 25 professional societies who support agriculture and food sectors in Canada. It provided a forum for each organization to express the challenges they face, identify areas of common concern, and develop potential solutions. Many societies had common problems such as visibility and recognition for areas of expertise, declining memberships, and volunteer burnout. Ideas were put forward on areas where collaboration among groups could occur. The CPS Board will be discussing this report and assess how it could impact our Society.

In closing my last message to you, I want to say that I think the future of CPS continues to be very bright. Despite being a relatively small and highly specialized organization, we have a dedicated, loyal membership (both working and retired) and a healthy financial position to carry out the ideas and projects that we collectively develop. One of our Society's strengths has been to often take a hard look at ourselves and re-evaluate how we do things by asking the membership what they want from the organization. This approach has allowed the Society to continue for nearly 75 years. However, to keep up our success, we still need to work on some things, such as attracting more students to the discipline and creating career opportunities for them, keeping the spirit of volunteerism alive, and increasing our public profile, particularly in education and policy issues.

The year has gone by quickly and I wish there was time to do more, but as the cliché states . . . all good things must come to an end! It was an enjoyable year and I hope you feel that I have served the Society well. My thanks to the Board, Committee Chairs, and members who have worked with me this year. Your inputs were highly valued. Hasta la vista!

#### Mot de la présidente

Karen Bailey

À la grandeur du Canada, le printemps est enfin arrivé et l'été est à nos portes, ce qui veut dire une nouvelle saison de phytopathologie. À ce temps-ci de l'année, plusieurs de nos collègues ont des fourmis dans les jambes et une étincelle dans le regard à la pensée des épidémies à venir. À Saskatoon, quelques phytopathologistes sont encore plus fébriles parce que la nouvelle édition de *Diseases of Field Crops in Canada* a été envoyée à l'impression. Je suis contente d'annoncer aux membres que le volume sera mis en vente après le 9 juin, juste en temps pour la présente saison.

Pour vous livrer d'avance l'information la plus importante, je vous annonce que le prix de détail du livre sera de 35,00 \$, soit une légère augmentation par rapport à l'édition précédente. Divers rabais sont disponibles pour les membres de la Société, à commencer par le *Rabais spécial de durée limitée pour acheteur hâtif* de 40 %. Une entente a été conclue avec les Presses de l'Université de la Saskatchewan pour l'entreposage et distribu-

tion du livre. Pour plus de détails sur les rabais et les commandes, voir l'autre article dans le présent numéro du *CPS-SCP News*.

La troisième édition de *Diseases of Field Crops in Canada* a une toute nouvelle présentation avec environ 60 % plus d'information, y compris quatre nouveaux chapitres, 659 illustrations en couleurs et plusieurs diagrammes de cycles vitaux. Le livre bénéficie d'une couverture qui met le titre bien en évidence sur un rayon de bibliothèque et d'une reliure à spirale lui permettant de reposer à plat sur une surface.

Les grandes lignes d'une campagne de mise en marché sont tracées, en commençant par le lancement du livre le 9 juin à Saskatoon. Cet évènement inaugurera la vente du livre avec des escomptes spéciaux pour nos commanditaires et des communiqués de presse destinés aux médias agricoles électroniques et imprimés. Naturellement, les ventes sont tributaires de l'intérêt des membres pour le livre. Nous avons des ententes avec le distributeur pour continuer la vente en consignation par nos membres. Si vous êtes intéressés à vendre des exemplaires du livre à vos producteurs locaux à un prix de consignation, alors contactez Robin Morrall ou moi-même. Nous avons imprimé 8000 copies . . . qui en vendra le plus?

Le projet a pris 2 1/2 ans pour être complété. C'est la combinaison des efforts de plus de 100 personnes qui ont volontairement fourni de l'information et des photographies, écrit des sections et des chapitres, et rassemblé les contributions de chacun dans un tout cohérent. Il y a également eu une vaste levée de fond, dirigée par Robinn Morrall, qui a généré 34 950 \$ en plus de contributions non financières de la part de commanditaires. Un soutien massif de ces individus et organisations était essentiel pour maintenir le prix de détail à un niveau très raisonnable. Ces contributions sont mises en évidence dans les remerciements du livre.

Je remercie spécialement Ralph Underwood (AAC, Saskatoon) et Dennis Dyck (Dép. de biologie, Université de la Saskatchewan) pour leurs prouesses en photographie et graphisme assisté par ordinateur, qui, à l'occasion,

n'étaient rien de moins que miraculeuses! Au nom de la Société, je remercie et exprime ma profonde gratitude à ceux qui ont dirigé l'édition du livre, Robin, Bruce, et Richard, sans qui la nouvelle édition n'aurait été qu'un voeu pieux. Finalement, la Société et les présents directeurs de la rédaction remercient sincèrement Lloyd Seaman, John Martens et Tom Atkinson pour la vision et l'énergie manifestées pour la création, avec les première et deuxième éditions, d'une base solide pour le nouveau *Diseases of Field Crops in Canada*.

Malgré mon désir personnel de voir le livre terminé, le Conseil d'administration, divers comités et des membres ont aussi été très occupés à d'autres activités et enjeux. En voici les plus récents faits saillants :

- 1) Conformément aux priorités du Plan stratégique, le Conseil a octroyé un soutien financier additionnel aux groupes régionaux et organismes connexes. Le groupe régional de la C.-B. a organisé un colloque de deux jours sur le virus de la brunissure nécrotique du bleuet. Le groupe régional de l'ouest de l'Ontario a invité le Dr Kang (USA) à traiter de « Molecular analysis of the disease triangle ». Une commandite fut octroyée au 19<sup>e</sup> Colloque annuel des étudiants diplômés en phytologie tenu à Winnipeg, lequel est une réunion annuelle des diplômés du Manitoba, de la Saskatchewan et du Dakota du Nord en agronomie, en amélioration des plantes et en génétique, en horticulture, et en protection des plantes. Gavin Graham, un membre étudiant de la SCP, s'est classé deuxième avec sa présentation « Effect of pathogen rate and weed growth stage on the synergy of scentless chamomile ». La SCP a aussi fourni un soutien financier à l'ICPP 2003 pour la réunion de Christchurch, Nouvelle-Zélande. Notre contribution les a aidés à attirer 1300 délégués de plus de 70 pays qui ont présenté 1300 communiqués. Près de 150 000 \$ NZ furent offerts en bourses pour 79 délégués de 28 pays.
- 2) Un rapport étoffé sur le pour et le contre de la participation de la SCP à des foires scientifiques fut préparé par Jeannie Gilbert en tant que présidente du Comité de l'éducation et de la sensibilisation du public. Le Conseil a décidé que la Société ne

bénéficierait pas d'une exposition publique suffisante pour justifier un engagement financier et consacrer le temps requis par les organisateurs de foires scientifiques nationales. Il fut entendu que la Société devait d'abord développer une trousse de projets en phytopathologie qui pourrait être utilisée par les enseignants pour favoriser une augmentation du nombre de projets dans les expo-sciences.

3) Le Comité des prix, présidé par Khalid Rashid, a proposé que le Conseil élève à 500 \$ le montant de la bourse pour indemnités de voyage remise à des étudiants. Un changement aux règlements (paraissant dans le présent

<< Malgré le fait que nous soyons une relativement petite organisation hautement spécialisée, nous avons un effectif loyal et dévoué . . . et une situation financière saine >>

numéro) sera mis au vote lors de l'Assemblée générale annuelle. Le Comité a aussi consacré du temps à l'élaboration de nouveaux formulaires et à une nouvelle procédure pour l'évaluation des présentations étudiantes. Ceux-ci simplifieront et standardiseront le processus d'évaluation.

- 4) Un nouveau comité, présidé par Ron Howard, fut formé cet année pour planifier et préparer le 75° Anniversaire de la Société en 2004. Le Comité des évènements spéciaux (COES) a été très actif et a récemment soumis six propositions au Conseil. Ces propositions mettent en lumière le passé, le présent et l'avenir de la Société, et font appel à la participation des membres émérites, réguliers et étudiants. De plus amples informations seront données à mesure que les plans se préciseront.
- 5) La SCP a participé à une réunion sur « L'avenir des sociétés professionnelles » organisée par le Conseil de recherches agroalimentaires du Canada (CRAC). Cette rencontre a réuni des représentants de 25 sociétés professionnelles qui oeuvrent dans le secteur agricole et alimentaire au Canada. Ce fut l'occasion pour chaque organisation de s'exprimer sur les défis auxquels elle fait face, d'identifier les secteurs d'intérêt commun et de développer des solutions potentielles.

Plusieurs sociétés ont des problèmes communs tels que la visibilité et la reconnaissance de leur domaines d'expertise, un nombre d'adhérents en diminution, et l'épuisement des volontaires. Des idées ont été lancées sur les domaines où une collaboration entre des groupes est possible. Le Conseil de la SCP discutera de ce rapport et évaluera comment il pourrait influer sur notre Société.

En terminant, je veux dire que je pense que l'avenir de la SCP est toujours très prometteur. Malgré le fait que nous soyons une relativement petite o r g a n i s a t i o n hautement spécialisée, nous avons un effectif loyal et dévoué (actif et à la retraite) et une situ-

ation financière saine qui nous permet de mettre en pratique les idées et réaliser les projets développés collectivement. Une des forces de notre Société a été d'être très critique envers elle-même et de réévaluer ses façons de faire en demandant à ses membres ce qu'ils attendent de leur organisation. Cette approche a permis à la Société d'exister pendant presque de 75 ans. Cependant, afin de continuer à avoir du succès, nous avons encore à travailler certains aspects, tels qu'attirer plus d'étudiants dans la discipline et de leur créer des perspectives de carrière, tout en gardant vivant l'esprit de volontariat et en améliorant notre image publique, particulièrement en matière d'éducation et de questions stratégiques.

L'année s'est écoulée rapidement et j'aimerais qu'il reste du temps pour faire plus, mais, comme le dit le dicton . . . toute bonne chose a une fin! Ce fut une année agréable et j'espère que vous avez le sentiment que j'ai bien servi la Société. Sincères remerciements au Conseil, aux présidents de comité et aux membres qui ont travaillé avec moi cette année. Votre implication me fut très précieuse. Hasta la vista!

#### **New Book Release**

#### Diseases of Field Crops in Canada

# K.L. Bailey, B.D. Gossen, R.K. Gugel, and R.A.A. Morrall

The third edition of *Disease of Field Crops in Canada* will be released on June 9, 2003. It is a comprehensive guide to identifying diseases of cereal, oilseed, pulse, forage, and other specialty field crops. Presented in an easy to read style, it describes symptoms, disease cycles, epidemiology, and management. The book will be of special interest to producers, extension agrologists, teachers, students, and plant pathologists.

There are 304 pages and 659 color figures coil bound with a wrap around cover in an 8.5 x 11 "format. The retail price is \$35.00 (not including GST or S&H).

ISBN 0-9691627-6-6.

# TIME LIMITED EARLY BIRD SPECIAL FOR CPS MEMBERS

The new edition of *Diseases of Field Crops in Canada* may be purchased by CPS members and sustaining associates in good standing at a 40% discount until August 15, 2003. After this date, the CPS membership discount is 15%. Volume discounts are available on request. More than one discount will not be applied to any single purchase.

#### **HOW TO ORDER**

The book may be ordered from the University Extension Press, Order Department, Room 125 Kirk Hall, extension Division, University of Saskatchewan, 117 Science Place, Saskatoon, Saskatchewan, CANADA, S7N 5C8.

Tel:(306) 966-5565

Fax: (306) 966-5567

Email: uep.books@usask.ca

Payment accepted by cheque, money order or

credit card.

GST and S&H charges will be added to the purchase price.

# Financial Sponsorship of *Diseases of Field Crops in Canada*

The Canadian Phytopathological Society gratefully acknowledges the contributions of the following individuals, companies and other organizations to the publication of the third edition of *Diseases of Field Crops in Canada*.

#### **Platinum sponsors**

Agriculture and Agri-Food Canada, Saskatoon Research Centre, Saskatoon

**BASF** Canada

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Saskatchewan Agriculture, Food and Rural Revitalization

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Philom Bios, Saskatoon, SK

Pioneer Hi-Bred Production Ltd.

Saskatchewan Wheat Pool, Seed Quality Control Laboratory, Saskatoon, SK

# Proposed Amendment to the By-Laws 2003

#### **Notice of Motion**

"The governing Board of the Canadian Phytopathological Society wished to bring forward a motion at the Annual General meeting of the Society to be held in Montreal, Quebec on June 25, 2003, to approve the attached amendments of the CPS By-Laws, in accordance with By-Law XVII, Section 1. Members are notified that they may vote in favour of or against adopting each of the proposed amendments at the AGM."

### The proposed change to the CPS By-Laws is as follows:

1) Propose to change the value of the CPS Student Travel Award from \$300.00 to \$500.00.

#### Current by-law reads as follows:

VIII. Awards

- 8. Graduate Student Travel Award
- b) There shall be a maximum of 2 awards presented annually, depending on the availability of suitable applicants, each valued at \$300.

#### Proposed by-law change as follows:

VIII. Awards

- 8. Graduate Student Travel Award
- b) There shall be a maximum of 2 awards presented annually, depending on the availability of suitable applicants, each valued at **\$500**.

#### **Committee Reports**

# **Awards Committee, Preliminary Report**

The Awards Committee reviewed all applications for candidates to the various awards including: CPS Fellow, Award for Outstanding Research, Award for Gordon Green Young Scientist, Award for Achievements in Plant Disease Control, and Student Travel Award.

The Committee members will evaluate students Oral and Poster presentations at the meeting for the Best Student Oral and Poster Presentation Awards.

The Awards will be presented to the successful candidates at the CPS meetings in Montreal, and a complete report will be published in the September issue of the CPS newsletter.

# 2003 Local Arrangements Committee

June 22-25; Crowne Plaza, Montreal.

The 2003 CPS annual meeting will be held at the Crowne Plaza Hotel, Montreal, from June 22-25, 2003. The major events are: a) Symposium on "Climate change impact on phytoprotection" organized by Dr. Carole Beaulieu; b) Workshop on "Status of microbial genetic resources and culture collection in Canada" organized by Dr. Tom Fetch; c) Industry Colloquium on "Fungicides in Canadian Agriculture" organized by Dr. Odile Carisse. We have received so far 90 abstracts, including 35 for oral and 55 for poster presentations. 125 people have registered on or before the May first deadline. For updates and details on the program please see our website. We have managed to keep the total cost very low for you to attend this meeting. The hotel where we meet is close to the airport and we got a very good deal on the room rentals. It is an excellent opportunity for you to visit Montreal with your family, at low cost.

Respectfully submitted,

A. C. Kushalappa and the committee

# Ad Hoc 75<sup>th</sup> Anniversary Special Events Committee

The Special Events Committee (SPEC) was formed in July, 2002 to assist with planning special events, activities and celebrations associated with the 75th Anniversary of the Canadian Phytopathological Society in 2004. The committee consists of nine members representing emeritus, regular, student and sustaining member groups, as well as the Board and Local Arrangements Committee for the 2004 annual meeting in Ottawa. A terms of reference for SPEC was reviewed and approved by the Board in January, 2003. SPEC solicited ideas from Society members, both directly and through the CPS News, and received dozens of interesting and innovative suggestions. Six theme areas were subsequently identified: Archives; Displays & Commemorative Items; Invitations, Awards & Grants-in-Aid; Programs for Charter & Emeritus Members; Publications; and Symposia, Lectures & Workshops. prioritized list of ideas was prepared for each theme area and the top ideas were further developed into action plans by small subcommittees of SPEC members. These plans were sent to the Board for review and to the appropriate CPS standing, subject matter and ad hoc committees for their use in planning special activities to commemorate the anniversary.

Respectfully submitted,

Ron Howard (Chair), Don Harder, Carl Willis, Jim Menzies, Nathan Owen-Going, Mary Leggett, Michael Corlett, Richard Hamelin (ex-officio, Vice-President, CPS), André Lévesque (ex-officio, Chair, LAC Ottawa 2004)

# Future Meeting Selection Committee

The CPS-SCP Future Meeting Selection Committee was presented the challenge of determining and recommending a suitable location for the 2007-CPS-SCP Annual Meeting. The **CPS-SCP** Annual meeting locations traditionally alternate each year from east to west. In 2002, the CPS-SCP Annual Meeting was held in Waterton, Alberta and in 2003, it will be held in Montreal Quebec. It was decided several years ago that the 2004 Annual meeting would be held in Ottawa, Ontario to celebrate CPS-SCP's 75th Anniversary. Although this breaks with the alternating east-west tradition, the alternating east-west location will continue when CPS-SCP holds a joint annual meeting with Plant Canada in Edmonton during 2005. CPS-SCP and Plant Canada have also agreed to have joint meetings every other year staring in 2005. In 2006, CPS will meet jointly with the American Phytopathological Society in Quebec City, Quebec.

To uphold the alternating east-west tradition and the CPS-SCP/Plant Canada agreement, the 2003 CPS-SCP Future Meeting Selection Committee recommends that Saskatoon, Saskatchewan be considered for the location of the 2007 CPS-SCP/Plant Canada joint meeting. The Site Selection Committee also recommends to the CPS Board to formally invite Plant Canada to meet jointly in Saskatoon during 2007. Plant Canada has indicated they would consider joining CPS-SCP in Saskatoon in 2007 once they have received a formal invitation from CPS-SCP. The Plant Canada Board will meet later this year to formally discuss the 2007 CPS-SCP/Plant Canada meeting. Plant Canada also indicated that if they decide to pursue a joint meeting with CPS-SCP in 2007, members from Plant Canada would help on the Local Arrangement and Organization committees.

#### The following is the site selections for CPS-SCP Annual meetings over the next 5 years:

**In 2003**, CPS-SCP will be meeting in Montreal, Quebec.

**In 2004**, CPS-SCP will be meeting in Ottawa, Ontario.

**In 2005**, CPS-SCP will be meeting with Plant Canada in Edmonton, Alberta.

**In 2006**, CPS-SCP will be meeting with the American Phytopathological Society in Quebec City, Quebec.

**In 2007**, CPS-SCP will be meeting with Plant Canada in Saskatoon, Saskatchewan.

Submitted by the 2003 CPS Future Meeting Selection Committee:

Michael Celetti (Chair) Randy Kutcher Kelly Turkington This is my last kick at the cat as editor of this Society's newsletter. I took over from Roger Rimmer in 1995 after the AGM in Toronto. The sweltering humidity on the day I showed my design suggestions to the CPS Board is etched in my memory. Although I have not attended as many annual meetings as I'd have liked since then, working on "the News" has helped me to stay in touch with colleagues from across Canada and even outside the country.

Who else can say they've worked with seven President's in seven years? There have been many changes in my tenure, not the least of them the complete migration to electronic article submission.

I had hoped to go out with a bang rather than a whimper, but . . . whimper it shall be as my regular obligations are in high gear. All there is time for is a fond farewell to my friends and colleagues, a hearty << Merci beaucoup >> to our always dependable translators, Jean-Guy Parent et Claude Richard (aka. PaRi), and a warm welcome to your new Editor-in-Chief - Kelly Turkington. Adieu mes amis.

David Kaminski

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#### **Other Reports**

#### CPS-SCP News Editors' Report

The cost of production for the last 4 issues (June 2002 to March 2003) was \$5480.08. The individual contributions were mailing - \$1937.62, printing - \$2342.70, dedicated e-mail - \$364.38, stationery supplies - \$295.38, French translation - \$300 and pre-mail processing \$240 (addressing, stamping, stuffing and sealing). The grand total was slightly more than the budgeted amount (\$5000), but would have been just under budget but for the printing of the AGM brochure with the March issue.

Suggestions for editorial content and improvements to the *CPS-SCP News* are always welcome. Instructions for contacting the Editor are printed in every issue.

David Kaminski

#### **Membership Secretary - 2003**

#### Membership Totals (as of May 15, 2003):

Regular members: 300
Emeritus members: 55
Student members: 30
Sustaining Associates: 14
Total Members: 397

At the same time last year, we had 406 members, so numbers are similar but slightly lower. The final total for 2002 was 418 members. Membership renewals and applications are continuing to trickle in.

New members: 20 (Regular - 14; Student: - 6)

Members from 2001 not renewed: 55

#### **Number of Members by Geographic Region**

Canada: 327; US: 49; International: 21

#### **Number of Members by Province:**

ON - 82; BC -57; AB - 41; MB - 50; SK - 38; QC - 32; PE - 11; NB - 8; NS - 6; NF - 2

186 Western Canada members (BC-MB); 141 Eastern Canada Members. (ON-NF)

#### **Print Journal vs. Online Access**

Print only - 269; Online only - 47; Both print and online - 41; No journal (emeritus) - 40.

#### **New Members:**

On behalf of CPS, I would like to extend a warm welcome to the following new regular and student members:

#### **New Regular Members:**

- 1. Vikram APPANNA, Plant Science, McGill University
- 2. David BACKHOUSE, University of New England
- M. BAHADORI
- 4. Tharcisse BARASUBIYE, Agriculture et Agro-Alimentaire Canada, Ottawa
- 5. Mahdi GHANAPOUR
- 6. Lloyd HARRIS, AgView
- 7. Scott HENRY, Bayer CropScience
- 8. Xiujie LI, Alberta Research Council
- 9. Forrest W. NUTTER, Iowa State

- University
- 10. Nandita SELVANATHAN, Manitoba Agriculture & Food
- 11. Denis A. SHAH, Plant Pathology, NYSAES
- 12. James TUCKER, Agriculture & Agri-Food Canada, Brandon
- 13. Owen WALLY, Plant Science, University of Manitoba
- Xiaoyang ZHU, Central Experimental Farm, Agriculture and Agri-Food Canada

#### **New Student members:**

- 1. Amélia DAUCH, Plant Science, McGill University
- 2. Gavin GRAHAM, Plant Sciences, University of Saskatchewan/Agriculture & Agri-Food Canada
- 3. M. Rafiqul ISLAM, Georg-August-University of Goettingen
- 4. Gerald MARTENS, Plant Science, University of Manitoba
- 5. Rajesh RAMARATHNAM, Plant Science, University of Manitoba
- 6. Grace SUMAMPONG, Biological Sciences, Simon Fraser University

The following **Sustaining Associates** have generously supported the CPS for 2002:

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Respectfully submitted,

Gayle Jesperson

Membership Secretary

# Report of the National Coordinator, Canadian Plant Disease Survey Disease Highlights Compte Rendu du Coordinateur National, L'inventaire des Maladies des Plantes au Canada - Apercu des Maladies

Volume 83 of the Canadian Plant Disease Survey (CPDS), reporting mainly on disease highlights for 2002, will be published at the end of May on the CPS website (http://www.cpsscp.ca). Thanks are due for the efforts of the section editors (Marilyn Dykstra, Andy Tekauz, John Muir, Bruce Gossen, Tom Hsiang and Paul Hildebrand) as well as Stephanie Hilton and Jamie McNeil (compilers) and Bruce Bowman (webmaster) at Agriculture and Agri-Food Canada (AAFC), London, Ontario. Fifty-five reports will be published, two more than in Volume 82. The distribution among sections is: cereals (22 reports); oilseeds and special crops (20); forest trees (4); diagnostic labs (4); fruits, nuts and berries, ornamentals and turfgrass (3); forages (2). Unfortunately, no submissions were received in the vegetables section and only one article is in French. The journal is, thus, not representative of the major linguistic division of Canada and is dominated by submissions from pathologists in the western provinces.

This will be the seventh year that CPDS is published electronically. In addition to being available on the web, it is distributed on request to authors and subscribers on diskette. A small number of hard copies are printed by the Society to send to libraries that prefer them for archival purposes. The national coordinator welcomes comments about the format, editing or publication of CPDS.

Stephanie Hilton retired in May. A replacement from AAFC, London to serve as compiler was found, but was recently assigned to a new position. Thus, the position of CPDS compiler for next year is still uncertain. In addition, a new government policy that all items on AAFC websites must be in both official languages means that CPDS can no longer be posted on the AAFC, London site. Therefore, CPDS will in future be posted directly on the

CPS site, and directions to that site will be given (in both languages) from the AAFC, London, site (<a href="http://res2.agr.gc.ca/london/pmrc.html">http://res2.agr.gc.ca/london/pmrc.html</a>). On behalf of the Society, I extend a sincere thank-you to AAFC, London for the fruitful cooperation it has had with CPS over the years.

Respectfully submitted,

Robin Morrall, CPDS National Coordinator Department of Biology University of Saskatchewan Saskatoon, S7N 5E2.

#### **People and Travel**

As a part of the restructuring of Alberta Agriculture, Food and Rural Development, Dr. Kan-Fa Chang has been transferred to the Field Crop Development Centre at Lacombe from CDCS, Brooks, beginning in mid-February. His mandate will focus on field pea, but also include diseases of other pulse crops. This transfer is also related to the agreement developed between AAFRD and Agriculture and Agri-Food of Canada to support the pea breeding program at AAFC, Lacombe. Kan-Fa is based at the AAFC Lacombe Research Centre and he can be reached by phone 403-782-8596, fax 403-782 6120 and e-mail kan.fa.chang@gov.ab.ca. Robyne Bowness (tel. 403-782-8595) was recently recruited from 44 candidates as Dr. Chang's technician.

**Xiaowei Guo**, a Master's student of **Dilantha Fernando** working on the epidemiology of the blackleg disease of canola, in the Department of Plant Science at the University of Manitoba has received a Canadian Wheat Board Scholarship to pursue his doctoral studies from September 2003. He will work on fusarium head blight disease and its effects on wheat grain quality under different climatic conditions. Xiaowei will be supervised by Dilantha Fernando.

**Michele Heath** (University of Toronto) escaped the cold and erratic weather of Ontario in April to give an invited talk at the Keystone Symposium in Utah on Plant Biology: Functions and Control of Cell Death, followed by the presentation of seminars on biotrophic fungal pathogens at the University of British Columbia and the University of Victoria.

# International comer

**Randy Kutcher**, Agriculture & Agri-Food Canada, was awarded an international travel internship from the Inter-American Institute for Cooperation on Agriculture to conduct a collaborative research project with colleagues in Brazil.

My visit to Brazil, September to December, 2002, was spent at EMBRAPA, Trigo (Ministry of Agriculture and Food Supply, Brazilian Agriculture Research Corporation, Wheat) in Passo Fundo, Rio Grande do Sul, in southern Brazil. I was very happy to renew my friendship with a former graduate student from the University of Saskatchewan, Dr. Gilberto Tomm and his family. Together with other EMBRAPA scientists we investigated pathology issues related to canola and field pea production.

The moist climate of southern Brazil allows the cultivation of many species of food crops. This climate is also conducive to many crop pests (insects, diseases and weeds). Currently most farmers produce two crops per year, warm season crops (corn and soybean) in the summer months and cool season crops (cereals) in the winter. At present, there are few crops produced during the winter other than wheat, barley and oats. The area of barley production is limited and oats are usually seeded as a cover crop and do not normally provide an economic return.

Much of the research at EMBRAPA Trigo is on wheat. Increased production of wheat is a priority for Brazil since the country imports approximately 70% of its requirement. Diseases are a major limitation to production of wheat in southern Brazil. The development of a rotation with other crops, particularly broadleaf crops would help to break disease cycles for wheat. This would result in increased production and quality and reduced pesticide use. Production of broadleaf crops will also generate income for farmers. Research such as the project that was conducted will be necessary to provide agronomic information and develop production packages for

successful cultivation of alternative crops. Canola has been investigated for over 20 years and currently there are a small number of farmers growing the crop. The crop is crushed locally and marketed to retail within Brazil. Blackleg is a severe pest problem that may limit production, although some varieties with genetic resistance are performing well.

Field pea has a number of beneficial attributes for inclusion in the crop rotation in southern Brazil. The crop fixes nitrogen, therefore reducing the need for nitrogen fertilizer and also provides an economic return to producers. Peas can be used in the poultry and swine industry in southern Brazil at times of the year when corn is in short supply. However control of disease is one of the main obstacles to overcome in the production of field pea. Mycosphaerella blight and anthracnose appear to be major limitations to production.

While on my transfer of work, I had the opportunity to travel to Uruguay and visit with Dr. Silvia German and other scientists at the INIA research station in La Estanzula (near Colonia). Crop production practices in the wheat growing parts of Uruguay are similar to Brazil. Diseases of wheat are a major limitation and researchers have been investigating alternative crops such as canola to introduce into the crop rotation.

The Brazilian people were friendly and welcoming and I came home a few pounds heavier from all the BBQ beef (churassco). The countryside is very beautiful, and the weather, although wetter than normal (blame assigned to El Nino) was very pleasant. The Brazilian election in October was a very important event. Unlike Canadian elections, most people showed a real interest (voting is mandatory between 18 and 70 years of age). It was an historic time as the result was the election of Lula da Silva as the first working class citizen to become President. People have high hopes for change that will improve the lives of all Brazilians. Agriculture is a very important part of the Brazilian economy and will play an important role in that change.

Article submitted by Dr. Randy Kutcher, Agriculture and Agri-Food Canada P.O. Box 1240 Melfort, SK SOE 1A0

#### Did You Know . . . ?

#### Ergot - Claviceps purpurea

The term 'ergot' is of French origin, derived from *argot*, meaning cock spur. It refers to the small pointed nail on the heel of a cock, which is similar in shape to the ergot sclerotium. In Latin, claviceps means club-headed, and purpurea means purple. The name pertains to the conspicuous dark purple-black ergot sclerotium that is visible in infected grass heads. The conspicuous nature of the sclerotium probably explains the numerous references to the disease throughout recorded history.

This disease has had a dramatic impact on mankind because of the sclerotia contain many compounds toxic to humans and other animals. Prolonged ingestion of the sclerotia or of bread made from flour infested with ergot produces devastating physiological and psychological effects on the human body, called ergotism. The sclerotia also contain psychoactive compounds similar to lysergic acid diethylamine (LSD), which only adds to the horror and pain of afflicted individuals. Many thousands died from ingestion and ergot poisoning during the many epidemics that ravaged Europe during the Middle Ages. Children were the most susceptible to the ravages of ergot. Severe chronic ergot poisoning eventually turned individuals into screaming, gibbering idiots whose fingers, toes, arms and legs blackened and corroded away from a dry gangrene. Before the etiology of the disease was known, the only relief from this scourge was death.

To understand the impact that ergot had on humankind, especially during the middle ages, it is necessary to understand the nature and importance of its primary host, rye, in bread making. The Greeks and Romans described ergot, but did not report any of its medical effects because they did not use rye in their bread. Rye was the bread corn of the Teutons, or Germans, and was introduced into southern Europe in the early Christian era. It was most popular in France and in a large belt extending from The Netherlands across Northern Germany, Czechoslovakia, Austria, Poland



and Central Russia. It was not widely employed in England and southern Europe because of the tradition in those areas of making bread out of wheat flour. Rye was the culprit in the ergot epidemics because it is much more susceptible to ergot than wheat, barley or oats.

The first recorded epidemic from ergot was in AD 857 in the Rhine Valley, where thousands of peasants died. The disease became known as sacer ignis or holy fire because afflicted individuals often experienced an intense burning and were thought to be cursed by God. Ergot epidemics were sporadic, striking only every 25-50 years in some regions of France and Germany, and more commonly in others. Ergot generally occurred following prolonged rainy conditions that favoured development of the fungus. Ergot poisoning was most frequently observed shortly after harvest. Exhaustion of the previous year's food stores by midsummer resulted in food shortages for many peasants. Therefore, the grain that fell from the ear during harvesting was immediately milled into flour. Because the ergot sclerotia are easily detached, this early milling was rich in ergot sclerotia. The disease was widely viewed as a disease of the poor because the wealthy could afford to eat clean grain, and purchase higher quality cereals such as wheat, which are much less susceptible to ergot.

In 1039, during an ergot epidemic in France, Gaston de la Valloire built a hospital to car for afflicted individuals and dedicated it to the memory of St. Anthony. The disease was thereafter known as St. Anthony's fire and monks eventually established the Order of St. Anthony to take care of afflicted individuals. Sufferers often improved in their care, likely because of the temporary absence of ergoty bread from their diets, but would often relapse on returning to peasant life. The cause of St. Anthony's fire remained a mystery until the 1670's when a quiet French country physician named Thuiller made careful observations on those succumbing to the affliction. He noted that the wealthy or city dwellers did not succumb to this disease, but the country peasants were very susceptible to epidemics. He reasoned that the disease must not be infectious and had to be linked to diet. One day, his investigations brought him to a field of rye, heavily infected with ergot bodies. As a physician, he knew about the medicinal properties of ergot bodies and of their toxicity when administered in high doses. Although he was convinced of his diagnosis, he was unable to prove it, and worse, he was unable to convince farmers not to eat the sclerotia. The proof that eluded Thuiller remained hidden for another 200 years until Louis Tuslane conducted microscopical inoculation studies to determine the life cycle of the causal agent. During the 1700s, however, there was mounting evidence that ergot sclerotia were responsible for St. Anthony's fire, and countries such as Prussia were exchanging ergoty rye for sound grain. Furthermore, rye was gradually losing importance as a staple among the peasantry as other crops such as potatoes were introduced into Europe. Other improvements in agriculture included improved drainage of fields, which also contributed to a reduction in ergot severity. Ergot poisoning still sporadically caused devastating losses to human life and, in some instances, was responsible for changing the

course of history. In 1722, Peter the Great of Russia was poised to conquer Turkey and extend his empire to the ice-free ports of the Black Sea. On the eve of the attack on the Sultan Ahmed III's army, Peter's armies and their horses were fed on a rye originating from the Volga delta. Shortly after eating the grain, horses were immobilized with the staggers and scores of his men were writhing in pain. Over 20,000 soldiers reputedly died, and with them Peter's dream of conquest of the Ottoman Empire. Even in the twentieth century, a major epidemic occurred in Russia during 1926-1927, with more than 10,000 cases of ergot poisoning and 89 deaths reported. The last outbreak of St. Anthony's fire was reported in France in 1951. An unscrupulous farmer sold ergoty grain to an equally unscrupulous miller and baker who used the grain to make bread that was consumed by the majority of inhabitants of Pont-Saint-Esprit. At the end of the epidemic, over 200 cases of severe ergot poisoning and four deaths were recorded.

Taken from: Gaudet, D., Menzies, J., and Burnett, P. 2000. Smuts, Bunts and Ergot. Encyclopedia of Microbiology 4: 297-315.

#### La Rouille dans l'Antiquité

Les plus anciens textes décrivant des plantes malades, trouvés dans la genèse, parlent de blé affecté par le charbon, de taches foliaires, et le mildiou, qui sont maintenant présumés être dus, au moins en partie, à des champignons agents de la rouille. Des fouilles en Israël ont révélé des urediniospores, causant la rouille des tiges, datant de 1,300 avant J.C.. Aristote (384-322 avant J.C.) évoqua la rouille comme étant produite par « les vapeurs tièdes » et mentionne la dévastation causée par cette maladie, ainsi que les années durant lesquelles la rouille s'était établie. Le philosophe grecque Théophraste (370-286 Avant J.C.) était le premier à écrire à propos des maladies des arbres, des céréales, et des légumineuses. Il fit l'intéressante observation que les maladies des plantes étaient plus sévères dans les emplacements à basse altitude, et rapporta que la rouille était plus sévère sur les céréales que sur les légumineuses. La prière officielle à une cérémonie « Robigala » donnée par Ovid (43 avant J.C.-17 ....) donne l'impression que la rouille des tiges était une maladie importante en Italie à ce moment-là. «Dur Robigo, épargnez la graine qui germe et laissez les parties aériennes indemnes frémir au-dessus du sol. Laissez les cultures, entretenues par les étoiles propices du paradis, croître jusqu'à ce qu'elles soient mûres pour la faucille. Votre pouvoir n'est point faible: la graine que vous avez stigmatisée de votre marque, sera abandonnée par le paysan, car perdue. Ni les vents, ni les orages, ni même le gel scintillant qui pince la graine de saule, ne l'abîme autant que lorsque le soleil réchauffe les tiges mouillées; alors, déesse de la crainte, est-ce le moment où vous affalerez votre colère. Épargnez, je prie, et enlevez vos mains croûteuses de la récolte N'abîmez pas le labour: ça suffit que vous ayez le pouvoir de faire mal. Ne saisissez pas les tendres cultures mais saisissez plutôt le fer dur. Devancez le destructeur. Mieux est si vous rongiez les épées et les armes funestes. Il n'y a point besoin d'eux: le monde est en paix. Maintenant laissez le paysan s'adapter, les râteaux et les binettes dures et le bout incurvé, être poli jusqu'à l'éclat; mais laissez la rouille défiler les bras et quand l'un essaye de tirer l'épée du fourreau, faites-le sentir le fourreau coller, à cause de la longue désuétude. Mais ne profanez pas la graine et puisse le paysan être capable de vous invoquer en votre absence».

Ceres, la déesse romaine d'agriculture (graines de céréales, maïs, pain), a représenté la terre, en connexion avec la croissance des plantes et avec les céréales en particulier. Une partie des célébrations du 19 avril, « Cerialia », a inclus la cérémonie de brûlage du renard, dans laquelle un renard, avec des tiges de céréales en feu attachées à sa queue, était libéré dans le Circus Maximus. Les cendres du renard étaient collectées et utilisées durant des rituels expiatoires, vraisemblablement pour protéger les cultures contre Robigo ou la rouille du blé. Cerialia est suivie de « Robigalia », le 25 avril, dédiée a Robigus, le numen (dieu) de la rouille du blé qui peut être apaisée pour éviter cette calamité. Un chien, de préférence de couleur rougeâtre, était sacrifié ce jour-là pour accomplir cet apaisement, parce que selon les romains, l'étoile-chien Sirius, la plus brillante dans le ciel, et qui se lève avec le soleil, ajoutait à sa chaleur, et les jours de canicule (du 3 juillet au 11 août environ) soutenaient la chaleur combinée de l'étoile-chien et du soleil.

Robigus pourrait être en alternance une divinité mâle ou femelle (Robigo). Des courses à pied étaient organisées pour honorer la divinité –courses pour hommes et pour garçons séparément-. Le festival Robigalia était observé durant 1700 ans.

Dans l'eglise occidentale, avant le 17ème siècle, l'ancien festival romain « Robigalia », avec « Terminalia », ou « Frontières », étaient adaptés par l'église comme étant le dimanche des rogations, qui suivait Pâques, la saison de la résurrection. Ceci servit un but pratique, avec des cortèges destinés à bénir les cultures, à les épargner de la rouille et du mildiou, et à définir les frontières lorsqu'il y'avait des systèmes de champs ouverts, et pas toujours des lignes claires de délimitation entre les paroisses.

by reader request, last issue's DYK by Julie Gold, translated by Associate Editor Lakhdar Lamari. - Ed.

#### **Announcement**

# **3<sup>rd</sup> Canadian Workshop on Fusarium Head Blight**

Mark your calendars! The 3<sup>rd</sup> CWFHB is planned for Winnipeg, December 9-12, 2003. The scientific program will consist of invited speakers, posters, and breakout sessions that cover research, consumer, and industry concerns. Location of the workshop will be Delta Winnipeg, 530 St. Mary Ave. For more information on registration and submission of abstracts go to the website after May 2003, English:grainscanada.gc.ca/cdngrain/fusarium/workshop03-e.htm or French:grainscanada.gc.ca/cdngrain/fusarium/workshop03-f.htm. Register early-Attendance limited.

# Report of the Education and Public Awareness Committee

## Raising Awareness of Plant Pathology in Teachers of Middle Years and Senior Students

The following is a guided tour of how some pathologists in Manitoba are attempting to raise awareness of pathology in the classroom.

First we contacted the local Science Teachers' Association. In Manitoba this is STAM. They directed us to areas in the Manitoba curriculum that cover plant pathology. In Senior 4 a single sentence covers diseases, pests and nutrient deficiencies. However, in the middle years, Grasslands, Prairies, Forests and Mysterious Microbes are covered.

I was put in touch with the local organizer for professional development. In Manitoba, one day in October is devoted to professional development in Study Area Groups. We offered sessions on pathology in 2001 and 2002.

#### Year 1:

18 high school teachers attended a morning session. The session was divided into:

- An Overview - importance of healthy plants, place for pathology in the curriculum. Poster and handouts displaying highly visible diseases, some historic, some current.

- Hands-on session
- Virology incl. overview of scientific method
- Seed diseases
- Koch's postulates demonstrated using *Cochliobolus sativus* and wheat.

Most of this is on the CPS web-site.

#### Year 2:

We followed the same plan, but few participants turned up for the session.

The feed-back obtained told us that teachers rarely have sufficient background and therefore the confidence to introduce plant pathology into the classroom. Workshops were suggested to help teachers interested in plant pathology to gain enough experience to introduce the subject to their students.

#### Plans for Year 3:

To hold a one-day workshop at the CRC for a limited number of participants. Take time to give participants a chance to see plant research in action. Use our lab and greenhouse for hands-on.

Skills that teachers/students can develop as a result of these exercises:

- Understanding of the scientific method
- Following instructions
- Observation
- Recording
- Data analysis
- Interpretation of data etc.

#### Considerations for 2003:

Revise, update Science fair projects for handouts, and place on the web-site. Include illustrations to give some life to them.

Competition among CPS members to develop more projects. A prize for the best.

Offer to supervise a student who is prepared to come to the Local Research Centre to work on their Science Fair project.

Produce a list of web-sites from which teachers could get help/guidance for plant pathology in the classroom.

A meeting of the members of the committee is planned for Montreal, June 2003.

Respectfully submitted, Jeannie Gilbert, Chair