

APPS NEWS

Volume 15, No. 1

March 2002

Quarterly Comments from the APPS President

I ask all members to respond promptly to the survey of members which Peter Williamson is launching as the Newsletter goes to press. The data will provide an invaluable profile on our profession. This information will be crucial to the preparation of submissions for various purposes such as the forthcoming Quarantine Review. It will also assist in the planning of Conference programs and with the membership drive.

The Executive is continuing to work on a Committee structure. We are also discussing how to expand the Journal to meet increasing demand. Ric Cother is working closely with CSIRO Press on this matter. Finally please remember to register early for the Congress and start planning your poster/paper submissions. There is only 10 months to go!

Lester W Burgess

International Congress of Plant Pathology Christchurch, New Zealand, 2 – 8 February 2003

Deadlines to remember:

- ◆ 30 June 2002 - early-bird registration - NZ\$980
- ◆ 31 July 2002 - abstracts of invited & offered papers required
- ◆ 31 October 2002 - registration - NZ\$1080

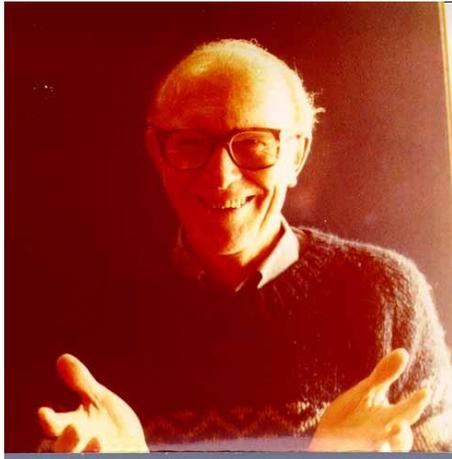
web address: www.lincoln.ac.nz/icpp2003/

On 21 December 2001 the “Call for Papers and Registration Brochure” was posted to about 1500 potential delegates in 95 countries. The number sent to Australia was 182, with 40 going to New Zealand. If you would like to receive a copy then please ask Helen Shrewsbury for one, at shrewsbh@lincoln.ac.nz The brochure contains much of interest plus all the registration details. There are three important dates, 30 June 2002 is the date for the early-bird discount of NZ\$100, i.e. NZ\$980 up till then, before the 31 October it is NZ\$1080, with abstracts of invited & offered papers required by 31 July 2002. There is information about the program, the pre- and post-congress workshops, the evening workshops and the social events. The website is www.lincoln.ac.nz/icpp2003/ & this also has registration details. The congress organising committee is working hard to arrange a worthwhile congress and look forward to welcoming you.

Ron Close

OBITUARY

Charles Alexander (Lex) Parker
Born: Perth, November, 1916
Died: Perth, December, 2001



Lex Parker was brought up on his father's 1800 hectare wheat/sheep farm near Kulin, a small town in the Western Australian wheat belt. This personal experience with the land and the hardships and problems faced by farmers gave Lex the awareness to dedicate his career to their cause. Lex had the ability to speak the language of farmers and farmers knew they were dealing with an international expert whose scientific knowledge was in demand in many countries and by the United Nations itself.

When phone calls for help came from the wheat belt, the eminent academic would not hesitate to drive out for a look at the soil and stay for a discussion afterwards. There would be no question of a consultant's fee. Professor Parker considered finding practical solutions to farming problems part of his job. He also genuinely liked farmers and they liked him - they saw him as one of their own.

Gregarious and good humoured, he would sometimes have to be almost dragged away to other appointments.

When he turned seven, his mother, a trained teacher, taught him at home for a couple of years before sending him to the local primary school. She resumed lessons in his early teens. The Correspondence Department then took over and young Lex later won a scholarship to the then Muresk Agricultural College.

Because his father had been gassed in France during World War 1, Lex had to remain on the farm while his younger brother Bevan went off to World War 2. When hostilities ended and Bevan returned, Lex, then aged 29, enrolled in the agriculture department at the University of WA. In 1950 he spent a year studying microbiology at the University of Melbourne and then returned to study soil microbiology at UWA. He researched non-symbiotic nitrogen fixation, then legume rhizobial problems and later take-all, a serious root disease of cereal crops.

In 1959 Lex was appointed to senior lecturer at UWA and by 1973 he was honoured with a personal chair, a professorial post awarded to academics of particular distinction.

A Sri Lankan, Krishnapillai Sivasithnparam (Siva), was one of the many recipients of the professor's generosity. Professor Parker invited him to UWA to pursue doctoral research, found him a house, taught his wife to drive and shared hot curries with them. Professor Siva, who has succeeded Professor Parker at UWA, described his mentor as "a great soul". The development of the use of legumes to introduce nitrogen into the soil was just one of his contributions. "He was a man of ideas, which others took up and ran with".

Former student Professor Mike Dilworth, of Murdoch University, wrote in a tribute that Lex was a wonderful human being, adding: "I never met any scientist with as strong a sense of absolute intellectual honesty as Lex Parker."

Lex was especially interested in helping farmers and scientists in Third World countries, serving with United Nations agencies and contributing his knowledge in India, Burma, Bangladesh, Tanzania, Nigeria and other countries.

After Professor Parker retired, he was named an emeritus professor and was an honorary researcher for a decade, with a special interest in the role of earthworms in wheat fields.

When he was a student at Currie Hall, he met his future wife, Dorothy, who was to become an anthropologist on the staff at UWA and who sometimes accompanied him on overseas study trips, during which he insisted research, not tourism, was the mission.

He is survived by Dorothy, their three children, David, Anthea and Janet, and two grandchildren

The Lex Parker Prize in Applied Microbial Ecology was recently set up in his honour at the University of Western Australia. There was a celebration of his life and work on February 10 at 5pm in the Tropical Grove at UWA.

WANTED: VISITING SCIENTIST INFORMATION

There is a site on the APPS web page which lists information about scientists visiting Australia and their contact details. The intention is to make available this information for anyone who may wish to contact these scientists (via the person they will be visiting), perhaps to arrange a visit or a seminar.

This will only work if the information is available, so could anyone with visiting scientists please input the information via the members services section on the web at http://www.australasianplantpathology.org.au/Miscellaneous/Visiting_scientists.htm

Notes from the Editor

Another full newsletter, many thanks to all the contributors, particularly Brett Summerall and Eileen Scott for their full listings of the post grad students in SA and NSW. I have started the listing on page 13, separated into APPS members and non members according to the current listing on the web (apologies if I have misplaced some!). It is great to see so many post graduates in APPS, and more should be encouraged to join. Apologies also to those who missed out - I ran out of room. They will be in the next newsletter, hopefully along with some from other states please!

Another reminder also to register for the IPPS/APPS conference in Christchurch (pg 12) and a continual plea to add visiting scientists information to the web site (above).

I am still on the hunt for files or pictures of pathological interest for fillers. Scans of pictures are fine – but please be aware of copyright!

Barbara Hall

News from the Editor-in-Chief of Australasian Plant Pathology:

We are now into the second volume of *Australasian Plant Pathology* being published by CSIRO Publishing and this liaison has helped to set the journal on the world stage of plant pathology.

The web site has increased exposure of the journal. As at 15 February 2002, there have been 7283 downloads from the web site since the journal went on-line, with 191 downloads in February and 550 downloads for the year to date. Other general stats for 2001:

- ◆ total visitor sessions to the APP web site = 8715
- ◆ average visitor session length = 7 min
- ◆ visitor sessions from USA = 25% of total visitor sessions

While these figures may decline now that there is no longer free access for all, they indicate that there is growing interest in APP.

The number of papers submitted continues to increase.

Volume	No papers	No pages
26	41	264
27	38	280
28	57	338
29	52	282 (B5)
30 (2001)	106	380 (A4)

Currently, there are 27 papers out for review and a further 20 that have been reviewed and are back with authors for revision. Although the year is young, the submission rate so far suggests that we will receive a similar number of papers this year as we did in 2001.

The Guidelines for Authors that appear in the March issue each year have been revised and expanded in some areas. I urge all authors to read them when preparing their manuscripts. It is surprising how many papers are submitted that vary widely from the required format. The most noticeable change to the Guidelines is the omission of the requirement for authorities for binomial Latin names, except in taxonomic papers. This has been done for two reasons: 1) this change is being adopted by most of the major journals, and 2) many authors omitted the authorities, increasing the editors' workload, and often, those included were incorrect. The common practice of simply copying authorities from another reference has led to the perpetuation of incorrectly spelt or abbreviated authorities.

I am frequently asked if we will adopt electronic submission of papers because, in theory, this should speed up the editorial/reviewing process. Unfortunately, many graphs and tables become corrupted during transmission and an original hard copy is still required to ensure that lines, symbols, columns, etc., are reproduced as intended. Because of this, it is essential to note that it is still important to check proofs carefully. Electronic submission of the final revised manuscript does not guarantee the absence of faults similar to those that may have occurred in the old fashioned days of human 'typesetters'. The responsibility of the correctness of the published paper lies with the author.

To reduce my workload, all Disease Notes and Quarantine Notes should now be sent directly to Dr Gavin Ash at Charles Sturt University, Wagga Wagga. His contact details appear in the Guidelines and on the inside front cover of each issue of the journal.

I am looking for a Book Review editor. The task involves receiving books from publishers, approaching potential reviewers and arranging the timely publication of the review in the Newsletter. The number of books varies each year from ~3-8. Contact me if you are interested, but it is not a short cut to building a professional library – the reviewer gets to keep the book! To maintain some stability with publishers, the term of this job ideally should be for 3 or more years.

Ric Cother

REGIONAL NEWS

SOUTH AUSTRALIA

Since our successful postgraduate prize day and end of year bash in 2001 for the SA branch (see included photos) we have had one seminar and put in place some initiatives to further plant pathology in South Australia. Dr David Gadoury from Cornell University recently spent three months in Adelaide working with Dr Ian Dry at the Horticulture Unit of CSIRO Plant Industry on grape powdery mildew. His PhD student, Andrea Ficke also spent spring and summer in Adelaide on the same project. While here, David gave an entertaining seminar entitled 'Interactions between grape powdery mildew, bunch rots and spoilage microorganisms – Many and varied roads to Plonk'. In some cases of challenge by powdery mildew before sugar accumulation in the berries, only sparse infections on the skin of the berry occur with barely visible necrosis (microscopic) preventing growth of the powdery mildew. However, this form of resistance allows infections by *Botrytis* bunch rot and a number of saprophytes that then lead to spoiled wine. David's group has been studying this interrelationship as well as investigating other forms of resistance that do not lead to necrosis. Additionally, they are developing a routine detection procedure to identify the necrosis before the damage to the berry is too extensive.

The SA branch has also started to organise an event for National Science Week in August – 'To Eat or Not to Eat – A Hypothetical?'. We will be holding a 'Geoffery Robertson-like Hypothetical' that addresses issues such as pesticides and genetically modified organisms and highlights the role that the science of plant pathology plays in agriculture, horticulture and ultimately, food consumption. We have applied for a National Science Week Grant and if successful, we will be able to take advantage of greater media coverage and design planned displays for students. It is hoped this will not only indicate the importance of plant pathology to the general community but also attract potential students to plant pathology. Additionally, we have set up a small travel bursary to support some SA student members to attend the International Congress of Plant Pathology in New Zealand next year.

Amanda Able



Some of the people that attended the end of year APPS (SA Branch) BBQ (2001) at Lenswood Research Centre were from L to R: Alan Dube, Peter Crisp, Don Gomez, Mark Sosnowski, Dale Godfrey, Amanda Able, Kylie Rogers, Fiona Constable, Nari Anderson, Rohan Singh, Margaret Cargill, Luke Selth, Mark Seemanpillai, Ian Riley, John Randles.



Margaret Cargill discusses Alan Dube's retirement with him at the end of year (above) and John Randles and Fiona Constable enjoy a laugh (below) at the end of year APPS BBQ (2001) at Lenswood Research Centre.



VICTORIA

It seems ages ago now but on the 7th December 2001, our Annual Honours Seminars and Christmas Gathering was held at the University of Melbourne, Parkville. Four Honours students did an excellent job of presenting their work on a variety of topics.

Our first speaker was Ms Peta Easton, from Latrobe University, who spoke on ‘Control of lettuce drop caused by *Sclerotinia minor* in Victoria’. Peta’s work included epidemiological studies on *S. minor* to determine the mode of infection of lettuce. Peta also evaluated various isolates of *Coniothyrium minitans* as potential biological control agents for *S. minor*.

Next was Mr Stuart Burns, from the University of Melbourne, who explained the ‘Diversity of ericoid endophytes’. Stuart isolated and cultured fungi from the roots of *Leucopogon parviflorus* collected from two coastal sites in Victoria. He also sequenced their DNA and compared them with known ericoid mycorrhiza-forming fungi from Australia and the Northern Hemisphere.

Our third speaker was Mr Luke North from the University of Melbourne, who presented his work on the ‘Effectiveness of plant extracts as fungicides’. This project was completed in China, where Luke studied the efficacy of numerous plant extracts from local markets, for their ability to control powdery mildew on cucumber. Luke identified some promising treatments, but warned their cost-effectiveness may prohibit their use.

The final speaker was Vanessa Bluett from Deakin University, who discussed the ‘Distribution of disease caused by *Phytophthora cinnamomi* at Wilsons Promontory National Park and the response of native plants’. Using the GIS system MapInfo, Vanessa showed that *P. cinnamomi* had spread extensively within the park from old disease sites into extremely susceptible vegetation communities. In preliminary trials, Vanessa found that phosphonate restricted lesion length on the roots of seedlings of two susceptible species, *Banksia serrata* and *Xanthorrhoea australis*.

Following the seminars, we all enjoyed some Christmas drinks and nibbles, and a few of us even kicked on for dinner at a Thai restaurant in Lygon Street, Carlton. Thanks to our speakers, but also to the audience members for supporting our up-and-coming plant pathologists (especially those who battled city traffic to attend!).

Sally Stewart-Wade

NEW SOUTH WALES

A post-graduate seminar day and scientific writing workshop was held at Mudgee, on February 6 – 7. Around 25 people (including 14 post-graduate students) attended the meeting. The following talks were presented by post-graduate students.

- ◆ Panter, Stephen - Australian National University: "The Cf-9 and Cf-9B resistance proteins: molecular basis for recognitional specificity and autogenic necrosis."
- ◆ Noor Istifadah, School of Biological Sciences, University of Sydney: Interactions between fungal endophytes and the pathogen *Pyrenophora tritici - repentis* in wheat.
- ◆ Feridon Ghajar, Centre for Horticulture and Plant Sciences, University of Western Sydney: "The effect of simulated and natural sunlight on spore germination of the potential mycoherbicide, *Rhizosporium alismatis*."
- ◆ Belinda Peters, Charles Sturt University: "Identification and characterisation of strains of *Pseudomonas syringae* pv. *maculicola* isolated from Mustard (*Brassica juncea*)."
- ◆ Andrew Albiston, Charles Sturt University: "Diseases of Jojoba."
- ◆ Leigh Pilkington, University of Sydney, Orange: "Australian lucerne yellows - an exercise in flexibility."
- ◆ Helen Richardson, Charles Sturt University: "Induced Systemic Resistance in Canola."
- ◆ Vincent Lanoiselet, Charles Sturt University: "Stem diseases of rice."
- ◆ Liandong Huang, University of New England: "Physiological interactions between *Fusarium* species and sorghum."
- ◆ Tijana Petrovic, University of Sydney: "The *Gibberella fujikuroi* complex on sorghum."
- ◆ Tran Nguyen Ha, University of Sydney: "The *Gibberella fujikuroi* complex on maize."

The seminar by Noor Istifadah was awarded a prize for best presentation for the day and she was presented with a free subscription to Australasian Plant Pathology for 12 months.

After the post-graduate talks Suzanne Bullock from the Royal Botanic Gardens gave a presentation entitled "In the Footsteps of Shackleton" on her recent trip to Antarctica.

In the evening a very enjoyable dinner was held at a local restaurant.

The following day Professor John Leslie, Kansas State University gave a half day talk on scientific publications and presentations. Dr Ric Cocher, Editor-in-Chief, APP also provided some insight into how to prepare papers for publication in APP. Professor Leslie is in Australia until August on a Senior Fulbright Fellowship and Royal Botanic Gardens Visiting Research Fellowship and will present a number of seminars (in NSW and interstate) during his visit.

In other news, Dr Fiona Benyon, formerly Research Fellow in the Department of Crop Sciences, University of Sydney will commence her new appointment as Assistant Program Manager with Horticulture Australia Ltd on the 11th February 2002. Fiona will have responsibility for pyrethrum, potato, hops and poppy portfolio's and provide assistance to several other portfolio's in the Sustainable Development Team led by Mr Gerard McEvelly.

Fiona's new contact details are:

Horticulture Australia Ltd
Sustainable Development Team
Level 1, 50 Carrington Street,
Sydney, NSW, 2000
Telephone: 61 2 8295 2313
Fax: 61 2 8295 2399

Email: fiona.benyon@horticulture.com.au

Brett Summerell

TASMANIA

Prof. Fred Crowe from Oregon State University visited Dean Metcalf at the NewTown laboratories, DPIWE, Tasmania in November 2001. Dean and Prof. Crowe are currently working on an improved detection system for onion white rot in soil samples in collaboration with Dr Gerry McManus from Queensland.

Ragil Irianto, visiting scientist from the Forest and Nature Conservation R&D Centre (Bogor, Indonesia) spent January in Hobart hosted in Dr. Caroline Mohammed's laboratory at CSIRO Forestry and Forest Products as part of the University of Tasmania/CSIRO FFP collaboration with Indonesian

institutes on stem decay (“heartrot”) in *Acacia mangium* and Eucalypt plantations. The main aim of the trip, organized and run by Dr. Karen Barry, was technology transfer and Ragil was engaged in many aspects of tree decay studies, including field trial establishment and harvesting, decay assessment, fungal isolation, culture maintenance and defence response assessment. The visit was extremely successful and will aid future studies in Indonesia.

Ragil also presented a seminar titled “Pests, diseases and mycorrhizae in Indonesian forest plantations” which was an interesting overview and was well attended (the cassava crackers were extra incentives!).

Karen (along with Neale Bougher, CSIRO FFP, Perth) visited Indonesia for field studies in Java and Sumatra during February and early March 2002. For more information about the project we now have a web-page at

<http://www.agsci.utas.edu.au/heartrot/index.asp>.

Dr. Karen Barry has been awarded \$5000 funding to attend the 7th International Mycological Congress in Oslo, Norway in August 2002. This was funded by the Forest and Wood Products Research and Development Corporation. The conference has a special symposium entitled “Plant-pathogen interactions in woody plants” which presents a rare opportunity to meet with other researchers in this field. Dr. Mohammed has been invited to give an overview of defence mechanisms in eucalypt and the work undertaken by her group in this area at this meeting.

Professor Bill Turechek from Ohio State University visited the Tasmanian Institute of Agricultural Research from 17 February to 3 March. Sarah Pethybridge and he worked on the comparison of statistical techniques for the measure of association between viruses infecting hop. Rachel Barrett is beginning a PhD on geophytopathological aspects of disease development in pyrethrum with Sarah, Frank Hay and Calum Wilson as supervisors.

Jason Scott is one of three postgraduate students selected to speak in the 3rd I.E. Melhus Student Speaker Symposium which is part of the American Phytopathological Society meeting in Milwaukee, USA, July 2002 and was awarded travel assistance from the APS to help him attend. Jason will give an oral presentation of his Ph.D work on ‘Epidemiology of Downy Mildew of Oilseed Poppy’.

Caroline Mohammed

PAPUA AND NEW GUINEA

I have just returned from attending the first PNG Crop Protection Workshop held in Lae, Morobe Province last week. What follows is a brief report from that workshop.

Crop Protectionists (approximately 25 Plant Pathologists and Entomologists) from around the country met for the first time from the 12th - 14th February 2002. There were two keynote presentations from Professor Ray Kumar of the Biology Department, University of Papua New Guinea. Professor Kumar pointed out the need for more taxonomic Plant Pathologists and Entomologists to tackle the pests and pathogenic fungi and bacteria of economic importance in PNG. Professor Terry Price, who recently took up the Chair of Agriculture at Vudal University, emphasised the need for more effort into quantifying crop losses in PNG.

The Workshop Participants held discussions and have formed an Association called “PNG Crop Protectionists Association”. Interim executives of the Association are: Chairman, Roy Masamdu (National Agriculture Research Institute), Deputy, John Konam (PNG Cocoa & Coconut Research Institute), Secretary, Bernard Pilon (Fresh Produce Development Cooperation. The newly formed Association has endorsed the interim executives to arrange for the next Crop Protection Workshop to be held in Rabaul, East New Britain Province in June/July 2003.

There were four APPS members at the workshop and we informed the PNG Crop Protectionists of APPS, so we expect additional membership from up here soon. We had two International Representations from across the Torres Strait, Martin Gunther (Australian Contribution to National Agriculture Research System, ACNARS) and Bruce French (Tasmania), at the workshop. We are hoping that APPS members from other Regions will be able to participate at the workshop next year and that the range of topics covered will be wide.

John Konam

NOTES FROM THE WEB

The Open Directory Project (ODP <http://dmoz.org/>) is one of the biggest Internet Directories created solely by users themselves. The webpages submitted to ODP power the core directory services of the major and popular search engines like Netscape, Google, Yahoo, AOL, Lycos, and many others. Site descriptions are also added for each webpage, and these are visible in search engine results. ODP is purely noncommercial and created by voluntary editors working unpaid in their private time.

My part in ODP is to promote the exciting world of Plant Pathology. I have already brought the number of webpages listed from 30 sites to 99. I would like to ask anyone that knows of other useful webpages currently not listed to submit them to ODP, and I'll include them promptly.

The main category for Plant Pathology is:

http://dmoz.org/Science/Biology/Botany/Plant_Pathology/. You'll notice that there are a number of sub-categories within the category including Associations, Conferences, Education and Publications. To submit sites, go to the sub-category that best fits the webpage (or do it through the main category), click on ADD URL in the upper right corner of the category. Any suggestions and comments are also welcome, and you can do this by clicking Category editor link at the bottom of the main category.

For all your Plant Pathology links galore, please bookmark the webpage.

Daniel Huberli

EXOTIC DISEASES:

Information sheets available

As part of increasing awareness of exotic diseases, plastic coated disease sheets have been prepared for Sharka disease, Pierce's disease and Fire blight.

To obtain one, please contact Mark Whattam (ph 03 9756 0407, mark.whattam@aqis.gov.au) or Dr Jo Luck (ph 03 9210 9248, jo.luck@nre.vic.gov.au).

BOOK REVIEWS

Matthews' Plant Virology
fourth edition, R. Hull
Academic Press: San Diego, 2001
ISBN 0-12-361160-1
1001 PP., 54 colour plates
Price AUD\$249.70 (inc. GST)

Plant Virology by R. E. F. Matthews was first published in 1970, and subsequently revised and reprinted in 1981 and 1991. *Plant Virology* has long been considered a classic in the field, and almost a compulsory acquisition for any research or teaching laboratory. Perhaps the best indicator of its value is the 'dog-eared' state of deterioration of the copy owned by our laboratory. Sadly, Professor Richard Matthews died in 1995, and most of us assumed that the 3rd edition of the book would be the last to be published. However, Academic Press has continued with the tradition of releasing a revised edition of *Plant Virology* every ten years by commissioning Professor Roger Hull to write the 4th edition. To help maintain the connection with previous editions, the book has been renamed *Matthews' Plant Virology*.

Professor Hull should be highly commended for the outstanding quality of the 4th edition. Nowadays, the profession is highly specialised, and I know of very few people with the breadth of experience and knowledge to undertake such a monumental task as revising this book. This effort is even more remarkable considering the fact that the discipline has undergone a revolution in the last ten years with the widespread adoption of molecular biology. This revolution is illustrated in Figure 1.3 of the book, which shows the results of a search for citations using the keywords 'mottle + virus' or 'mosaic + virus'. In the 1980s, the number of plant virology publications including these keywords

was fairly constant at 200-300 per annum, but in the following decade, the number of publications has more than doubled to 700-800 per annum.

Every chapter of *Matthews' Plant Virology* has been extensively re-written, the order in which topics are treated has been reorganised, and in many cases, chapter titles have also changed, so that this latest edition bears little resemblance to the previous edition. In this edition, the first chapters deal with basic features of viruses such as taxonomy, symptomatology and virus structure; chapters 6 and 7 deal with the expression and replication of viral genomes; chapters 8 to 13 deal with interactions of viruses with their hosts and vectors; and chapters 14 to 17 deal with other virus-like sequences such as viroids, control of plant viruses using traditional and transgenic approaches, and finally, the evolution of plant viruses. The appendices have been expanded to provide an up-to-date listing of plant viruses and their classification, as provided by the most recent ICTV report published in 2000.

There are several features of *Matthews' Plant Virology* that I find particularly attractive. Plant virologists have pioneered research in basic aspects of plant and animal molecular biology, such as in the fields of transcriptional and post-transcriptional gene silencing (PTGS). Viruses have also given considerable insight into how macromolecules are trafficked within the plant. A consequence of this broadening of the field is that now literature that may have great relevance to our understanding of how plant viruses interact with their hosts is not confined to the traditional plant pathology and virology journals, but is dispersed amongst a wide variety of journals. In Chapter 10, PTGS, a phenomenon that is thought to have evolved as a defence mechanism of plants against viral infection and invasion by retroelements, is described over 11 pages. In this concise treatment of the field, Professor Hull has brought together literature related to organisms as diverse as *Neurospora*, *Arabidopsis*, *Drosophila*, *Chlamydomonas* and *Caenorhabditis*. Not only is the coverage of the field impressive, but also the contemporaneity of some of the literature, published as little as three months before the publication date of this book (October 2001). Another section of the book that I found particularly interesting to read was in Chapter 13 (pp. 586-590). In this section, Professor Hull has described the structure of the endomembrane system and cytoskeleton of the cell, and provided information on the most recent evidence suggesting the involvement of these structures in movement of macromolecules, including mRNAs and plant viruses. As with the description of PTGS, a broad range of literature from basic areas of study have been included, providing the researcher with only a casual interest in this area a thorough but concise review.

If I was to find fault with the book, the only section I could readily point my finger at is the quality of some of the colour plates. For example, plate 3.5 shows a tobacco plant with symptoms of infection with *Tobacco mosaic virus*. The resolution of reproduction of this photograph is so poor that it is difficult to actually see what the symptoms are. I hope Academic Press can address this issue in future print runs.

In summary, I'm sure that *Matthews' Plant Virology* will be invaluable to a wide range of plant virologists, from undergraduates to experienced professionals. *Matthews' Plant Virology* is available directly from Harcourt Australia Customer Service, Tel: 1800 263951, Fax (02) 95172249 or e-mail stmp@harcourt.com.au. Harcourt Australia is offering readers freight free delivery with mention of this review.

Andrew Geering

Department of Primary Industries, Queensland

***Cyclaneusma* needle-cast in New Zealand**

L. Bulman and P. Gadgil (eds), *Forest Research Bulletin* 222, 2001. Pp 79, 16 colour figures, spiral bound, 297 x 209 mm. NZ\$45.00. Publications, Forest Research, Private Bag 3020, Rotorua, New Zealand

Needle-cast diseases of *Pinus radiata* caused by species of *Cyclaneusma*, *Dothistroma* and *Lophodermium* have a significant impact on plantation vigour and productivity. Plantations of *P. radiata* totalled more than 4 million ha worldwide in 1996. More than 95% of the plantations occurred in just four countries: New Zealand, Chile, Australia and Spain. This book deals with what is probably the most common fungal associate of *P. radiata*.

Cyclaneusma (Ascomycota: Rhytismataceae) as presently understood comprises two species. One of these, *C. minus*, has a special affinity with *P. radiata* although it also occurs on numerous other species of *Pinus*. Recent molecular data indicate *Cyclaneusma* may belong in a sister clade to the Rhytismataceae.

Ascospores of *C. minus* can infect live needles throughout the year resulting in long-lasting endophytic infections that are often asymptomatic. In susceptible hosts and under some situations *C. minus* causes significant defoliation in autumn and spring with a consequent slowing of tree growth. This adverse economic impact has led to a considerable research effort into studies of the biology and pathogenicity of *C. minus* in countries where radiata pine is grown commercially including Australia, Chile and particularly New Zealand.

This book is divided into three main sections. Six of the eight chapters are adaptations and updates of work previously published in *New Zealand Journal of Forestry Science* in 1984–1988. The inclusion of colour photographs showing infected trees, typical symptoms, and cultures, plus use of colour in graphs adds enormously to the usefulness and visual impact of the book.

The first section, of three chapters, is a detailed overview of the biology of *C. minus* on *P. radiata* and covers symptoms, pathogenicity, production of ascospores, infection biology, and pathogen variability. In recent but previously unreported studies, two colony morphology groups were identified in *C. minus*. Both groups occur throughout New Zealand.

Part two, again of three chapters, deals with the distribution of *Cyclaneusma* needle-cast in New Zealand, effect of infection on diameter and volume growth on *P. radiata* trees and economic impact. Bulman and van der Pas show that diameter growth losses from defoliation caused by *C. minus* have a lesser impact than *Dothistroma septosporum* infections of similar severity. Volume loss per annum in *P. radiata* plantations in New Zealand is estimated to be 6.6%, a significant loss when compounded over a thirty-year rotation.

The final two chapters discuss control of the disease by chemical and silvicultural methods. Surprisingly there is no discussion of selection and breeding for resistance, or use of resistant clones. Nor is there any discussion of physiological conditions such as mid-crown yellowing or spring yellows that may or may not have *C. minus* as a contributing factor. The focus on the work of the Forest Health group at Rotorua is parochial though understandable.

The book concludes with a list of references cited in the text, geographical data about New Zealand, a short glossary and an index. Although the editors have relied heavily on previous publications this book is elegantly designed and very readable. The new information on variation within *C. minus* in New Zealand (Dick, Somerville & Gadgil), on effects of the disease on tree diameter growth (Bulman & van der Pas), and on silvicultural control methods (Bulman) is of particular interest.

This book is essential reading if you have a serious interest in the biology of endophytic fungi or the pathology of radiata pine in particular or *Pinus* in general.

J. A. Simpson

State Forests of NSW, Beecroft, Australia

POST GRADUATES (APPS)

SOUTH AUSTRALIA:

Sharmini John

PhD : Biological control of Eutypa dieback of grapevines: interactions between the pathogen and fungal antagonists.

Supervisors: **Eileen Scott, Trevor Wicks and John Hunt**

Location: **Department of Applied and Molecular Ecology, the University of Adelaide**

Started: **Oct 1999.**

Belinda Rawnsley

PhD: *Phomopsis viticola*: pathogenicity and management.

Supervisors: **Trevor Wicks, Eileen Scott, Belinda Stummer and John Randles**

Location: **South Australian Research and Development Institute and Department of Applied and Molecular Ecology, the University of Adelaide**

Started: **August 1999.**

Suzanne Colmagro

PhD: Anthracnose disease of almond.

Supervisors: **Eileen Scott, Margaret Sedgely and Graham Collins**

Location: **Department of Applied and Molecular Ecology, the University of Adelaide**
Started: **April 2001.**

Richard Lardner

PhD: Pathology and diagnosis of Eutypa dieback of grapevines.

Supervisors: **Eileen Scott, Belinda Stummer, Trevor Wicks and Mary Cole**

Location: **Department of Applied and Molecular Ecology, the University of Adelaide**

Started **Jan 2000.**

Yvonne Smith

PhD: Root diseases of onion.

Supervisors: **Eileen Scott and Trevor Wicks**

Location: **Department of Applied and Molecular Ecology, the University of Adelaide**

Started **Feb 2001.**

Peter Crisp

PhD: Biological control of grapevine powdery mildew in cool climate viticulture.

Supervisors: **Eileen Scott and Trevor Wicks**

Location: **Department of Applied and Molecular Ecology, the University of Adelaide**

Started: **Jan 2000.**

Mark Sosnowski

PhD: Epidemiology and management of blackleg in canola.

Supervisors: **Eileen Scott and Mark Ramsey**

Location: **Department of Applied and Molecular Ecology, the University of Adelaide and South Australian Research and Development Institute**

Started: **Jan 2000.**

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WESTERN AUSTRALIA

Daniel Huberli

**PhD: Phenotypic variation of two localised populations of *Phytophthora cinnamomi* from Western Australia and how they impact on Eucalyptus marginata resistance**

Supervisors: **Giles Hardy and Inez Tommerup**

Location: **Murdoch University, Perth, Western Australia**

Completion date: **Degree Awarded: thesis in review (submitted 16 Nov 2001)**

Life after PhD: **Postdoc at Berkeley University examining phenotypic variation of *Phytophthora ramorum*, a recently discovered pathogen that is causing widespread plant mortality in native California ecosystems.**

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QUEENSLAND:

Jason Sheedy

M Sc: Resistance to Root-lesion nematode (*Pratylenchus thornei*) in wild relatives of bread wheat and Iranian landrace wheats

Location: **Leslie Research Centre, Toowoomba**

Completion date: **December 2002 (Hopefully)**

NEW SOUTH WALES/ACT

Mr Anowar Mondal

PhD - Induced systemic resistance in legumes

Supervisors: **Brian Deverall, David Nehl**

Location: **Sydney University, NSW Agriculture, respectively**

Leigh J Pilkington

PhD – Australian Lucerne yellows: pathogen, vector and control.

Supervisor: **Dr Geoff Gurr**

Location: **University of Sydney, Orange**

Andrew Albiston

PhD – Diseases of Jojoba

Supervisors: **GJ Ash, EJ Cother**
Location: **Charles Sturt University**

Helen Richardson
PhD – Biological control of blackleg of canola using rhizobacteria
Supervisors: **GJ Ash, Simpenfendorfer**
Location: **Charles Sturt University**

Angela Chittick
PhD – Use of microencapsulation in the formulation of fungi for biological control
Supervisors: **GJ Ash, R Kennedy**
Location: **Charles Sturt University**

Vincent Lanioselet
PhD – J Harper Stem disease of rice
Supervisors: **GJ Ash, EJ Cother,**
Location: **Charles Sturt University**

POST GRADUATES (NON APPS)

SOUTH AUSTRALIA

Su-Lin Leong
PhD: Biology of black *Aspergilli* in Australian vineyards
Supervisors: **Eileen Scott and Ailsa Hocking**
Location: **Department of Applied and Molecular Ecology, the University of Adelaide and Food Science Australia, Sydney**
Started **Feb 2001**.

Rina Kasiamdari
PhD: Interactions between mycorrhizal fungi and *Rhizoctonia* species.
Supervisors: **Sally Smith, Andrew Smith and Eileen Scott**
Location: **Department of Soil and Water, the University of Adelaide**
Started **Feb 1997**, thesis accepted **February 2002**, will resume lectureship at **Gadjah Mada University** shortly.

Erminawati Wuryatmo
Title: **Antifungal properties of citral.**
Supervisors: **Andreas Klieber and Eileen Scott**
Location: **Department of Horticulture, Viticulture and Oenology, the University of Adelaide**
Started **August 1999**.

Sandra Savocchia
PhD: Detecting fungicide resistant strains of the grapevine powdery mildew fungus using molecular markers.
Supervisors: **Eileen Scott, Belinda Stummer, Trevor Wicks and Robyn van Heeswijk**
Started **Feb 1997**, thesis accepted **Jan 2002**, has accepted a lectureship in viticulture at **Charles Sturt University**, plans to start **June 2002**.

Reiny Scheper
PhD: Genetic variation in *Phomopsis viticola* in Australian vineyards
Supervisors: **Eileen Scott, Dara Melanson and Bob Symons**
Started **Jan 1994**, intermitted, thesis accepted **Dec 2001**.
Now doing postdoctoral research on suppressiveness of soil to *Rhizoctonia solani* AG2-1 on cauliflower at **Plant Research International** in **Wageningen, the Netherlands**.

Ben Stodart
PhD: Molecular/genetic characterisation of AG-2 subgroups of *Rhizoctonia solani*.

Supervisors: **Dara Melanson, Stephen Neate, Eileen Scott, Paul Harvey and Kathy Ophel Keller**
Location: **South Australian Research and Development Institute and Department of Applied and Molecular Ecology, the University of Adelaide**
Started **Feb 1997**.

SA/WA

Benedict Killigrew

PhD: Behaviour of infective propagules of *Plasmopara viticola* (grapevine downy mildew) under Western Australian conditions.

Supervisors: **Krishnapillai Sivasithamparam and Eileen Scott**

Location: **Department of Soil Science and Plant Nutrition, the University of Western Australia**

Started **June 2001**.

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NEW SOUTH WALES

Mr Liandong Huang

**PhD - Host-pathogen relations of sorghum stalk rot**

Supervisors: **David Backhouse, Nigel Warwick**

Location: **Botany, University of New England**

Noor Istifadah

**PhD - Interaction between fungal endophytes and *Pyrenophora tritici-repentis*, the causal agent of tan spot disease, in wheat.**

Supervisor: **Peter McGee**

Location: **University of Sydney, School of Biological Sciences**

Ms Florian Yan

**PhD - Cotton soil health: influence on cotton root diseases**

Supervisors: **Les Copeland, David Nehl, Tony Vancov, David Backhouse**

Location: **Sydney University, NSW Agriculture, NSW Agriculture, UNE, respectively**

Angela Reeves

**Master of Science - Characterisation of fungi pathogenic to citrus to improve market access**

Supervisors: **Primary supervisor - Deborah Hailstones (EMAI), Academic supervisor - Ren Zhang (EMAI), Associate supervisor - Nerida Donovan (EMAI)**

Location: **University of Wollongong, work to be conducted at Elizabeth Macarthur Agricultural Institute**

Mr Richard Kent

**PhD - Role of weeds in epidemiology of Fusarium wilt of cotton**

Supervisors: **Brian Sindel, David Backhouse**

Location: **Agronomy and Soil Science, University of New England**

Feridon Ghajar

**“The effect of simulated and natural sunlight on spore germination of the potential mycoherbicide, *Rhizosporium alismatis*”**

Supervisors: **Paul Holford, Ric Cother**

Location: **University of Western Sydney, Centre for Horticulture and Plant Sciences**

Location: **Charles Sturt University**

Belinda Peters

**Summer Student - Identification and characterisation of strains of *Pseudomonas syringae* pv. *maculicola* isolated from Mustard (*Brassica juncea*).**

Supervisors: **GJ Ash, EJ Cother, N Urwin**

Elissa Wes

**Masters – Endophytic bacteria in grapevines.**

Supervisors: **GJ Ash, CC Steel, EJ Cother**

Wayne Pitt

**PhD - Studies on the host range and aggressiveness of *Rhynchosporium alismatis* in rice fields.**

Supervisors: **GJ Ash, EJ Cother**

Tamrika Hind

**PhD – Forecasting Sclerotinia Stem Rot in Australia**

Supervisors: **GJ Ash, GM Murray**

*to be continued.....*

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## New Members

On behalf of the Society, the Management Committee would like to welcome the following new members:

NSW: Ms Megan Blake  
Miss Helen Richardson  
Ms Katrina Lindhout

SA: Mr Richard Lardner

TAS: Dr Rachel Walker

New Zealand:

Mr Rouke Bakker  
Miss Roz Lister

Papua & New Guinea:

Mr Yak Namaliu

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## Don't forget to have your say!

This is your newsletter so be sure to let us know what is going on about:

- \* Open days and field days
- \* Scholarships and employment opportunities
- \* Regional news
- \* Special interest groups
- \* Requests for information etc.
- \* Upcoming events
- \* Awards to members
- \* Issues of concern
- \* Humorous events

and any other interesting information!

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APPS NEWS is the official newsletter of the Australasian Plant Pathology Society, published quarterly. Items for inclusion should be sent to Mrs B. Hall, Plant Research Centre, SARDI, GPO Box 397, Adelaide, SA. 5001. Ph. 08 8303 9562, Fax 08 8303 9393, Email: hall.barbara@saugov.sa.gov.au. **Next deadline: May 2002.** Editor-in-Chief APP: Dr Eric Cother, NSW Agriculture, Orange

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Web Site: (<http://www.australasianplantpathologysociety.org.au/>)

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