



Quarterly Comments

from the APPS President

As I write this, the APPS Executive Committee is preparing for the 2005 Annual General Meeting of the Society (March 2005; see the APPS website for AGM information), and is beginning work towards passing responsibilities to the next Executive, at the 15th Biennial Australasian Plant Pathology Conference (BAPPC) in Geelong in September. Nominations have been received for two new Executive Committees, the first to carry the flag from the next AGM until the 15th BAPPC, and the second from Geelong into the future. Looking back, though, several important things have occurred recently that will ensure continued valuable contributions from the APPS to plant pathology, and from plant pathology to more general activities.

New publishing contract for *Australasian Plant Pathology* (APP)

I recently signed a new contract between APPS and CSIRO Publishing for publication of our journal for the period 2005 until 2009. This continues a very productive relationship which has progressed the significance and standing of *APP* as an international science

journal. Dr Ric Cother (*APP* Editor-in-Chief) has signalled the need for increased capacity of the journal, so a key development in the new contract will be expansion, from 2006 onwards, to six issues per year. This has been necessary as the numbers of papers accepted for publication has increased, and the time between acceptance and publication has extended. *APP* has continued a steady evolution over many years, and the latest developments are a continuation of this progression. The journal will now offer shortened publication times, along with the already excellent standards of refereeing and editorial input, publication format and quality, to enhance its place as an important international organ for disseminating outputs from our science.

Plant pathology assistance with development of Laboratory Safety Standards

Dr Emer O'Gara and Dr Philip O'Brien of Murdoch University recently highlighted potential problems associated with proposed PC3 classification for *Phytophthora cinnamomi*, by Standards Australia. This was part of development of the Australia/New

Zealand standard, "Safety in laboratories. Part 3: Microbiological aspects and containment facilities." This containment classification for an organism that is very widespread in the environment would clearly be incorrect, and reflected the broader issue of lack of adequate plant pathology input into development of safety standards. APPS approached Standards Australia on this issue, with the outcome being that Dr Jackie Edwards (PIRVic, Knoxfield) has been appointed as a plant pathology adviser to the relevant Standards Australia subcommittee. Standards for laboratory containment will now be developed with appropriate (and expert) plant pathology consultation.

A National Plant Health Diagnostics Network

There has been ongoing interaction between APPS and Plant Health Australia (PHA) on development of a National (Australian) Plant Health Diagnostic Network. After a workshop held at ICPP2003 in Christchurch, PHA in collaboration with the Office of the Chief Plant Protection Officer, are advancing this work. At least two activities will involve collaboration with APPS. The first will be

continuing the implementation of workshops on diagnostic standards and new techniques (possibly at the 15th BAPPC in Geelong). The second is identifying discipline groups within APPS that can be used as an expertise inventory in support of the National Plant Health Diagnostics Network. Access to these groups could well be obtained through, and as an adjunct to, the APPS website. In these ways, APPS can assist with this important initiative, both within Australia, and also throughout the greater Australasian region.

15th Biennial Australasian Plant Pathology Conference

Looking forward now, plans are well advanced for the Conference in Geelong (26-29 September, 2005). All APPS members should also be making plan, to attend this important occasion on our calendar. Information on the Conference is available through the APPS website. An important date is 27 May, for submission of Abstracts and early registration. I look forward to what is certain to be another very successful event for our discipline.

Richard Falloon



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 Visiting Scientists link in the left hand menu on the web at <http://www.australasianplantpathologysociety.org.au>.

REGIONAL NEWS

VICTORIA

The Victorian branch of APPS had its end of year function at DPI Knoxfield on the afternoon of Friday 10th December 2004. The group welcomed back Terry Price to Victoria after a stint overseas. We had a presentation by Dr Elizabeth Minchinton (DPI Knoxfield) and Dr W D (Bill) Smith (USDA Forest Service National Forest Health Monitoring Unit Research Triangle Park North Carolina).

Liz's talk was entitled 'Evaluation of Tom-Cast: A disease predictive model for the processing tomato industry in Australia'. She was invited to present this research seminar at the 6th World Congress of the Processing Tomato & 9th International Symposium on the Processing Tomatoes in Melbourne on 15 - 18 November 2004. The Tom-Cast predictive model uses temperature and leaf wetness to determine if growers need to apply a fungicide spray. Liz evaluated the potential of Tom-Cast to help growers with their spray programs for early blight, Septoria and anthracnose over 3 years. During the experimental years weather conditions were not conducive to disease development. The conclusions from the research were that in Australia, the Tom-Cast predictive model established when not to spray. Further research is required in disease conducive years to determine if the model is useful in predicting when to spray. Liz's collaborators on this research were Len Tesoriero, Andrew Watson, Michelle Warren and Graham Hepworth.

Bill was a guest of Ian Smith (Senior Forest Pathologist, School of Forest and Ecosystem Science, University of Melbourne) and his talk was entitled 'Data mining, MIND MINING, and risk mapping: Development of a national risk map for Sudden Oak Death'. Bill's talk covered the distribution of known and suspected host species of *Phytophthora ramorum* the cause of sudden oak death of

which there are many including forest species and evergreen hosts such as rhododendron and huckleberry. From this information a distribution map of potential hosts is produced. A climatic map that favours disease development is overlaid onto the potential hosts map to determine the risk potential. Identify pathways of introduction into new areas, in this case Rhododendron Nurseries and Douglas-fir Christmas tree farms were considered sources of inoculum from the already infected West Coast of the US. Overlay pathways map then sample in potentially disease areas to find infected plants.

Following the seminars, members enjoyed drinks and nibbles in the Knoxfield foyer. Thanks goes to the speakers Liz and Bill for their time, effort and enthusiasm and also to the audience members who endeavoured to learn from this new and exciting research.

Tonya Wiechel



New South Wales

Brett Summerell resigned as Regional Councillor for New South Wales in October 2004. At this stage we do not have a replacement for Brett. Persons interested in the NSW Councillor's job should contact the APPS Executive Secretary, Mark Braithwaite (email: braithwaitem@maf.govt.nz).

QUEENSLAND

Southern Queensland

DPI&F/APPS Seminar Day: The first DPI&F/APPS seminar day for the year was held on Thursday 24th February, at DPI&F Indooroopilly. The theme for the day was soil health and bananas. Three speakers presented results from a banana amendment trial examining nematode and fusarium, whereas the fourth speaker, was a visiting scientist from Costa Rica, who is currently working with bananas, nematodes and Fusarium.

Lisa Gulino and Kathleen Parmenter:
Assessing soil microbial levels and diversity in a pre-plant soil amendment trial of banana. DPI&F, Indooroopilly

Kathleen and I presented this talk on a soil banana amendment trial that had been previously set-up by Linda Smith, at Indooroopilly DPI&F, and assessed by us. This was a pot trial (glasshouse) that involved adding various amendments to banana soil naturally infested with *Fusarium oxysporum* f.sp. *cubense* (*Foc*). The amendments used were: Mill Mud, Mill Ash, Molasses, Calcium Silicate, Banana Trash, Bedminster Compost, Hay Grass, Hay Lucerne, Biosolids and untreated. The aim of the experiment was to examine the effects various amendments would have on disease severity (*Foc*), and assess the effect on soil microbial levels. Plant growth parameters were measured throughout the experiment and at 'harvest'. Disease severity was also measured at 'harvest'. Microbial levels were then determined by soil dilution plating. Levels of bacteria, fungi, actinomycetes and fusarium were calculated per gram of soil. General trends have shown that microbial levels varied with the application of specific amendments, as did disease severity and plant growth. Microbial diversity of the aforementioned are currently being investigated, utilising molecular techniques. The relationship between the amendment used, disease severity, plant growth and soil microbial composition is currently being investigated.

Tony Pattison:

Amendments enhancing nematode suppression on bananas. DPI&F, South Johnstone

Tony Pattison's talk focussed on the effect the addition of various amendments would have on nematode populations in bananas. This experiment was set-up in South Johnstone, using the same amendments as used at Indooroopilly. Specifically, Tony was looking at how amendments may alter the levels of the banana nematode pathogen *Radopholus similis* (burrowing nematode). Results obtained showed that various amendments did alter the levels of *R. similis* and also the overall nematode composition in the soil. Tony also presented another amendment trial where different forms of carbon were added and nematode levels and diversity were assessed. Once again, certain forms of carbon were able to reduce *R. similis* levels.

APPS Guest Speaker:

Dr. Luis Pocasangre: *Centro Agronomico Tropical de Investigación y Enseñanza (CATIE), Costa Rica.*

Luis presented "Biological enhancement of bananas for suppression of Fusarium and nematodes" Luis' presentation, tied in nicely with the previous talks and focussed on both the effect that enhancements in banana have on fusarium and nematodes. Luis presented work from four experiments: studies of suppressive soil from Guatemala at BAYER in Germany; studies of suppressive soil from Guatemala at CATIE; studies of suppressive soil in Costa Rica and studies on fusarium. The first experiment investigated the differences between *R. Similis* suppressive and non-suppressive soil. Fungal and bacterial levels were measured of each soil as well. Endophytic fungal levels were also determined for the two soil types. A bioassay was then used to look at the effect of adding different concentrations of suppressive soil (from 100% -0%) on *R. similis* levels. Generally, suppression of *R. similis* increased with the increased amount of suppressive soil. Also, fungal,

bacterial and endophytic fungal levels were higher in suppressive soil than from non-suppressive soil.

The second experiment, looked at suppressive soil, but investigated the role of isolated endophytes and biological control by these endophytes. Endophytes were tested for their ability to reduce *R. similis* levels and their effect on plant growth. Similarly, the third experiment, performed in Costa Rica, looked at endophytes as potential antagonists that

could reduce *R. similis* levels and the effect of the endophyte on plant growth. The final project Luis talked about was the investigating methods for fusarium control in bananas in Costa Rica. Currently they have a project screening vitroplants of banana for resistance to *Foc* race 1. 'Resistant' vitro plants have been transplanted to the field and tested for their ability to resist *Foc* infection under field conditions.

Lisa Gulino

News from the Business Manager

Most of the 2005 subscriptions have been processed giving us a total of 412 members, slightly less than last year. Please encourage any non-members in your area to join. The more members we can encourage to join the less likelihood of subscription increases in the future. Forms are available from the APPS website or your regional councillor.

I am often asked about security of the information in the APPS database. I always use the maximum hardware and software security that is on offer and would compare our security as equal to the banks. I also get asked about SPAM being generated from our Member Directory. The directory was set up in such a way that it is only possible to access one page at a time and it is unlikely that any SPAM is generated from it. I have noticed that other scientific societies list all their member details in one large file and am sure that this is the source of a lot of irritating SPAM.

The APPS Job Net has not been as popular with our members and employer organizations as in past years. Usage during 2004 dropped to a third of the ads posted in 2003. However, the APPS Job Net advertising has increase in popularity with non-members and employer organisations overseas. APPS Job Net is unmatched when it comes to linking suitable candidates with plant pathology vacancies in the Australasian region. I regularly receive emails from satisfied customers and members thanking the society for the service. Keep the ads coming in.

EMAIL ADDRESSES!

It is very important to keep your email address up to date. It is not only your contact address but also your user name for accessing the electronic version of APP.

Peter Williamson

**15th Biennial Australasian Plant Pathology Society Conference
'Innovations for sustainable plant health'**

Deakin University Waterfront Campus
Geelong Victoria
26 - 29 September 2005

Closing date for receipt of abstracts	27 May 2005
Closing date for early conference registration	27 May 2005
Closing date for Allan Kerr Post graduate prize	27 May 2005

The organising committee extends a warm invitation to you to attend the 15th Biennial Australasian Plant Pathology Society Conference in Geelong, Victoria in September 2005.

The theme of the conference is 'Innovations for sustainable plant health'. This theme will allow us to focus on the key issues, review past lessons and explore the application of new technologies to ensure we can maintain and improve plant health, now and in the future. In addition to invited plenary and keynote speakers who will give presentations addressing this theme, we invite you to give oral and poster presentations of recent scientific work in the field of plant pathology.

The conference will provide a forum for the sharing of information on plant disease issues, and foster constructive interaction between participants not only from the Australasian region but from further afield. Attendance at this conference also provides you with an opportunity to view new products in the trade exhibition in the pleasant surrounds of the Deakin University Waterfront Campus in Geelong, Victoria, Australia.

For regular updates visit the Conference website:

www.deakin.edu.au/event/apps2005/

For information concerning this conference contact:

Deakin Event Management Services
Deakin University
Geelong Waterfront campus
1 Gheringhap Street
Geelong Vic 3217, Australia
Telephone: +61 3 5227 8121
Facsimile: +61 3 5227 8188
Email: lynne.lucas@deakin.edu.au

15th Biennial Australasian Plant Pathology Society Conference

Deakin University Waterfront Campus

Geelong Victoria

26 – 29 September 2005

We look forward to welcoming you to the conference and to Geelong. Original papers are now being sought. Suggested session topics for oral papers and posters are:

- Bacteriology
- Biotechnology in plant pathology
- Breeding for disease resistance
- Diagnosis & detection
- Disease surveys & new pathogens
- Education/Extension
- Epidemiology
- Disease management
- Exotic pathogens and quarantine
- Foliar diseases
- Forest & natural system pathology
- Microbial forensics
- Functional genomics of plant pathogen interactions
- Impact of plant pathogens on human/animal health
- Mycology
- Nematology
- Pathogens as biocontrol agents
- Plant pathogen interactions
- Population genetics of pathogens
- Soilborne diseases
- Vascular diseases
- Virology

International Cereal Rust Control Symposium

Tuesday 20th - Friday 22nd September 2005

Sydney

Dr Robert Park, University of Sydney (robertp@camden.usyd.edu.au)

National Cereal Rust Control Program, Plant Breeding Institute,
University of Sydney

**15th Biennial Australasian Plant Pathology Society Conference
Deakin University Waterfront Campus
Geelong Victoria
26 - 29 September 2005**

Workshops

The organising committee invites groups to host workshops/tours in conjunction with the conference. For more information please contact Grant Hollaway (grant.hollaway@dpi.vic.gov.au).

The workshops/tours currently planned are:

- Nematology biosecurity – distinguishing and detecting: Australasian Association of Nematologists
- Biological Control of Plant Pathogens: Dean Metcalf and Oscar Villalta
- Mycosphaerella leaf disease of eucalypts: Angus Carnegie
- Plant Biosecurity Research and Policy Priorities: Ryan Wilson
- Plant pest risk analysis: Adrian Harris
- Microbial forensics (New diagnostic technologies): Nigel Crump
- Dealing with the White Blister threat: Liz Minchinton & team – Knoxfield.
- Fruit rot disease – impact and control: Robert Beresford and team
- An introduction to Pythium identification: Elaine Davison
- Forestry Pathology workshop and tour: Angus Carnegie and Dave Cahill
- Field Crop Pathology Tour: Grant Hollaway
- Horticulture on the wildside Tour: Caroline Donald and Ian Porter

Workshop co-ordinator – Grant Hollaway – (grant.hollaway@dpi.vic.gov.au)

The organising committee invites groups to host special interest meetings in conjunction with the conference. For more information please contact the special interest group coordinator, Brendan Rodoni (brendan.rodoni@dpi.vic.gov.au)

Special interest meetings are held on a free evening during the conference.



Jottings from the APP Editor-in-chief

Electronic submission of manuscripts

CSIRO Publishing are introducing web-based electronic manuscript submission using software (OSPREY) developed with a Canadian Publisher. It is being trialled on several CSIRO Journals at present and should be in place for *Australasian Plant Pathology* by June.

Members will be advised by email when the software becomes operational and authors are encouraged to use the system. It is envisaged that by the end of 2005, manuscripts will only be accepted via the Web.

Ric Cother
Editor-in-Chief, *Australasian Plant Pathology*



Making sense of the English language

We'll begin with a box, and the plural is boxes; but the plural of ox became oxen not oxes. One fowl is a goose, but two are called geese, yet the plural of mouse should never be meese. You may find a lone mouse or a nest full of mice; yet the plural of house is houses, not hice.

If the plural of man is always called men, why shouldn't the plural of pan be called pen? If I spoke of my foot and show you my feet, and I give you a boot, would a pair be called beet? If one is a tooth and a whole set are teeth, why shouldn't the plural of booth be called beeth?

Then one may be that, and three would be those, yet hat in the plural would never be hose, and the plural of cat is cats, not cose. We speak of a brother and also of brethren, but though we say mother, we never say methren.

Then the masculine pronouns are he, his and him, but imagine the feminine, she shis and shim!

BOOK REVIEWS

A Field Guide to the Fungi of Australia

A.M. Young

UNSW Press: Sydney 2005, 240pp

ISBN0 86840 742 9, Price \$ 29.95

This field guide is a welcome addition to the paucity of related material currently available on this subject in Australia. The book deals with about 170 species that would be commonly encountered throughout Australia by even the most casual of observers.

There is a very concise but informative introduction to the world of fungi as well as hints on collecting, keeping notes and specimens as well as, toxicity, fairy rings, classification of the fungi and an introduction to the various descriptive terms used for parts of "mushrooms and toadstools". The keys to the described species are visually based with line drawings and primarily use ecological habit (including animal dung) followed by gross morphology to arrive at either a definitive species or a genus. At first glance this appears to work better for a guide such as this, than traditional keys based on spore colour and morphological features.

Throughout the book are many superb watercolour illustrations and line drawings by Kay Smith, a long-time collaborator (and illustrator of the 1982 book) and many colour photos taken by Tony. It is also pleasing to see that the current nomenclature is followed and that each species is accompanied by concise descriptions and extensive notes on habit, use, distinguishing features and edibility/toxicity as well as known distribution.

This book appears to have just the right amount of detail to attract both keen naturalist and professional mycologist alike. The lack of tedious taxonomic detail is pleasing but the book remains authoritative. Given that estimates of the larger fungi in this country range from 10,000 to 20,000 species, the preface rightly states that this book "opens a tiny window onto Australian macrofungal

taxonomy- a field of study that has largely vanished from professional Australia" and it is to be hoped that this book will stimulate more interest and study into possibly the most important group of micro-organisms in the environment. I urge readers to look through this tiny window and enjoy the wonderful view offered. If you wish to learn more about the larger Australian fungi then you should buy a copy of this whether you are professional or not. This book is a very welcome addition to the subject in Australia and, at a price everyone can afford, every library, personal book shelf and backpack should have one.

Michael Priest

NSW DPI

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High-yielding Anthracnose-resistant Stylosanthes for Agricultural Systems

S. CHAKRABORTY, Australian Centre for International Research, Canberra 2004

ISBN: 1 86320 442 3 cost A\$54.00 available from National Mailing & Marketing: aciar@nationalmailing.com.au; ph 02 6269-1055; fax 02 6260-2770.

The pasture legume *Stylosanthes* is increasingly being used to supply forage and restore soil fertility, both in India, Asia and South America and also in Australia. For example, with an estimated annual seed production of over 1000 tonnes, *Stylosanthes* plays a vital role in India in mitigating fodder shortages, improving soil fertility and restoring degraded lands. In Southern China, *Stylosanthes* now occupies over 100,000 ha and contributes significantly to meat and milk production. *Stylosanthes* is a native forage legume in Brazil, where 25 species are found and where the forage potential of native species of *Stylosanthes* was described as long

ago as the 1940s. At one stage in northern Australia, there was an annual increase of 100,000 ha, and today the beef industry in northern Australia remains heavily reliant on this legume. The initial limitation to expanding commercial production, in Australia but particularly in India and China, was the limited range of germplasm available for the various utilisation schemes.

Development of, and access to, improved germplasm, in particular germplasm with good resistance to anthracnose disease (caused by *Colletotrichum gloeosporioides*), has been and remains crucial for all countries where *Stylosanthes* are grown. Anthracnose disease remains the most serious threat to the economic utilisation of *Stylosanthes*, for example, it destroyed some 500,000 ha in Australia in the 1970s, and this disease has been responsible for the demise of many productive cultivars in several countries. In particular, the adaptive nature of the fungus *C. gloeosporioides* remains a major concern everywhere that *Stylosanthes* is cultivated.

Having worked with pasture legumes for over 30 years, I must admit that this volume is the most comprehensive of any that have been put together dealing with agronomy of a pasture legume along with disease as a major limitation. In doing this, not only has this book been successful as a compendium on both these issues, but also has come out as a model case study for any pasture legume, temperate or tropical, annual or perennial. One of the key reasons for this successful outcome is because of the editor's long association with many, if not all, of the authors who are spread across from the South America to India to Asia and to Australia, all having been involved in a finely conducted Australian Centre for International Agricultural Research program that not only succeeded in achieving its aims but also in presenting the outcomes clearly and concisely, as the easily readable materials in this book.

Section A of this book deals with the versatility of *Stylosanthes* as a pasture legume which fits in well within a wide spectrum of agricultural systems practiced in widely differing

environments, including those of that deal with crops and livestock.

Section B, the largest of the three sections of this book, deals firstly with germplasm evaluation and cultivar development in Brazil, India and China. These studies indicate that evaluation and selection has to be carried out in relation to the intrinsically different environments that occur in each of these countries. It also highlights the necessity to spread out such evaluations in all countries involved rather than to rely on extrapolations from a centralised location. Secondly, this section also deals with the biology and epidemiology of the anthracnose pathogen (*C. gloeosporioides*), dealing with the diversity of the pathogen in Brazil, India, China and Australia. It also highlights the variability within the populations of this pathogen and the necessity to take this in to account in managing the disease in specific regions.

The final section, Section C, deals with the practical and commercial utilisation of *Stylosanthes*, which clearly holds great promise in a wide range of countries around the world, providing anthracnose disease can be managed. It also deals with the challenges associated with commercial production, both as seed for propagation and for leaf meal as animal feed.

Overall, this book offers a comprehensive coverage of not only anthracnose as a disease, but also valuable information on the agronomy of *Stylosanthes*. As a promising legume for a wide variety of agricultural systems, especially in the developing world, this book will therefore not only be useful for legume pathologists and breeders but also a valuable compendium of information for agronomists and anyone interested in land development or increasing agricultural productivity in semi-arid and arid regions in developing countries as well as in northern Australia.

Assoc Prof Martin Barbetti

The University of Western Australia

New Members

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

NSW: Mr Khalaf Alhussaen
Ms Elissa West

ACT: Dr Celeste Linde
Ms Sisie Sprague

QLD: Mr Jean-Yves Paul
Ms Diana Leemon
Mr Brett Williams
Dr Doug Becker

SA: Ms Sarah Palmer
Mr Alireza Marefat
Miss Amanda Bengier

Tasmania: Ms Susan Lambert

Victoria: Dr Benozir Kazi
Ms Bonny van Rijswijk
Dr Rose Lines
Dr Rosa Crnov

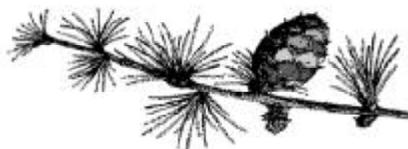
WA: Mrs Aruni Jayasekera
Mr Andrew Taylor
Mrs V Andjic



South Africa: Mr Gert Van Coller

New Zealand:

Miss Elaine Chan
Mr Friday Obanor
Mrs Judith Pay
Mr Emmanuel Yamoah
Assist Prof Ratiya Pongpisutta



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!

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: 27 May 2005.** Editor-in-Chief APP: Dr Eric Cother, NSW Agriculture, Orange Agricultural Institute, Forest Road, Orange, 2800. Ph. 02 6391 3886, Fax 02 6391 3899, E-mail: ric.cother@agric.nsw.gov.au

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