

INTERNATIONAL NEWSLETTER ON PLANT PATHOLOGY

ISPP Newsletter 44 (1) January 2014

News and announcements from all on any aspect of Plant Pathology are invited for the Newsletter. Contributions from the ISPP Executive, Council and Subject Matter Committees, Associated Societies and Supporting Organisations are requested.

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Happy New Year and Season's Greetings to All

I am writing this message on 21st December which, depending upon whether you live in the southern or northern hemispheres is the summer or winter solstice, the time when the "sun stands still" and days begin to lengthen or shorten again, and traditionally in many cultures linked to celebration, reflection and looking forward to the year ahead.

I live in Australia, so I am used to celebrating with sunshine and heat, but with all the trappings of cool climate cultures, [mistletoe](#), food and drink, and the other key ingredient – the pleasure and joy of being with family and friends!

For the ISPP this has been a year with much to celebrate:

- Our Journal, *Food Security - The Science, Sociology and Economics of Food Production and Access to Food* has continued to prosper, and the impact factor has exceeded 2.0.
- The [International Congress of Plant Pathology](#) ICPP2013 in Beijing was a great success – running at a profit, with attendance over 1800, and many delegates 'first timers' at ICPP! Also at ICPP 2013,
- The premier prize in Plant Pathology, the [Jacob Eriksson Prize](#), was awarded to Professor Jeff Jones of the University of Florida,
- Several of the ISPP [Subject Matter Committees](#) organised workshops and meetings linked to ICPP2013 and
- A record number of ISPP Associated Societies and Committees sent reports on their activities since 2008.

Reflection

During November, along with over 300 delegates, I attended the 19th [Australasian Plant Pathology Society Biennial Conference](#) (APPC) *Protecting our crops and native flora*, in Auckland, New Zealand, and took some time with my wife to see of the countryside of the North Island.



New Zealand has the most unique and wonderful natural vegetation, reflecting its long geographic isolation, active volcanic regions, and the strong heritage of the Maori culture, with participation in APPC and sightseeing providing insights into all. This quote (Philip Adams, (writing about Wellington's about face on nuclear ships) *The Bulletin*, 29 1 1985) sums up some of my impressions: *we should not be surprised at anything New Zealand does. It is under a thin veneer of respectability, a strange and eccentric country. The landscape may look as domesticated as Devon's but it trembles beneath your feet. Everywhere the suburban niceties - but is that steam rising around the garden gnomes?*

The theme of my Presidency of ISPP is adopted from the Australasian Plant Pathology Society slogan – ‘Plant Health is Earth’s Wealth’.

This recognises that plant pathology, and the roles of plant pathologists, extend much more deeply than ensuring food security. Because plant health underpins the existence of life on this planet, and as plant pathologists we are also acutely aware of the importance and impacts of climate and weather – rain, drought, snow and frost, as well as storage and transport arrangements. on plant disease as well as the productivity and vitality of man-made systems and natural environments

Looking to the year ahead

It’s the perspective of the holistic importance of plant pathology for our planet that I bring with me:

- as the ISPP partners with the American Phytopathology Society over the next 5 years to organise the 11th International Congress of Plant Pathology in Boston Massachusetts USA ,
- as we continue to build strong links with Associated Societies
- as we achieve more through our Subject Matter Committees, the journal (*Food Security*) and the ISPP Newsletter, and the taskforce on global food security.

During 2014, I hope to meet many of you at national and regional plant pathology conferences –

- The [3rd International conference](#) of the Pakistan Phytopathology Society in Karachi during January 2014
- The American Phytopathology Society Conference during August 2014,
- The 5th Asian Conference for Plant Pathology in Chiang Mai, Thailand 3-6 November 2014, and the
- 11th Arab Congress for Plant Protection in Amman, Jordan, 9 – 13 November 2014

Each of you is part of the ISPP, and, I look forward to interacting with you in 2014

Greg I Johnson

President, International Society for Plant Pathology

Enthusiastic Response to the 2014 International Horticultural Congress

The 29th International Horticultural Congress to be held in Brisbane, Australia, in August 2014 has been

warmly welcomed by potential participants with a record number of abstracts submitted already. Over 4,000 abstracts have been received.

Details about this Congress are 29th International Horticultural Congress, "Horticulture - sustaining lives, livelihoods and landscapes", in Brisbane, Australia. 17–24 August 2014. See: www.ihc2014.org.

Ban on Importing South African citrus into the European Union

A ProMED-mail Plant post at <http://www.promedmail.org> for 4 December 2013 states that the European Union has placed a ban on imports of South African citrus for the remainder of the 2012/13 season. There have been 36 interceptions of black spot disease on citrus this year.

This ban will have no significance for this season as all citrus exports to the EU from South Africa have finished, but the impact of the ban being continued in 2013/14 would not only have a big effect on the South African citrus industry, but other markets around the world.

Grand Challenge Exploration Awardee

The ISPP Business Manager, Peter Williamson, has had an e-mail from Mustafa Ojonuba Jibrin who wishes to advise that he has won a Grand Challenge Exploration Award to help promote female farming in Nigeria. Mustafa's permanent address is Department of Crop Protection, Ahmadu Bello University, Zaria, Nigeria. He is currently at the Department of Plant Pathology, University of Florida, Gainesville, USA.

Grand Challenges Explorations fosters creative projects that show great promise to improve the health of people in the developing world. Grants target an expanding set of global health topics, and there are two award rounds per year. Projects with demonstrated success in their initial phase of research have the opportunity to receive Phase II funding of up to \$1 million. Unorthodox thinking is essential to overcoming the most persistent challenges in global health. Vaccines were first developed over 200 years ago because revolutionary thinkers took an entirely new approach to preventing disease. Grand Challenges Explorations fosters innovation in global health research. The Bill & Melinda Gates Foundation has committed \$100 million to encourage scientists worldwide to expand the pipeline of ideas to fight our greatest health challenges. Launched in 2008, more than 900 Grand Challenge Explorations grants have been awarded to innovative, early-stage projects in more than 50 countries.

See:

<http://www.grandchallenges.org/explorations/Pages/grantsawarded.aspx?=&Agriculture&Round=11&Phase=1>.

Mustafa advises that "view all on One Page" should be selected.

New banana disease spreading throughout Africa

According to a ProMED-mail Plant post at <http://www.promedmail.org> on 6 December 2013, shocked by the outbreak of a new strain of banana disease in Africa, farmers in Nigeria and regulators of the agricultural sector are bracing to prevent and combat the possible attack of the nation's plantain-banana producers by the scourge of Fusarium wilt. The destructive strain of banana wilt disease, which was discovered on Cavendish

bananas in Mozambique, has begun to spread to other African nations. The disease, widely known as Foc TR4, is a form of Fusarium wilt or Panama disease, caused by the fungus *Fusarium oxysporum* f. sp. *cubense* Tropical Race 4. This fungus has devastated banana plantations in Asia over the past two decades.

The African outbreak was discovered on a commercial farm in northern Mozambique earlier in 2013 with support from UEM (Universidade Eduardo Mondlane), and the responsible fungus subsequently identified at Stellenbosch University in South Africa. The Ministry of Agriculture in Mozambique has announced this outbreak via the IPPC (International Plant Protection Convention) portal. Mozambique government officials have visited the farm, and have introduced in-country measures to contain and prevent spread to other parts of the country. A stakeholder consultation meeting to explain the outbreak was held in Maputo in November 2013, and will be followed by similar meetings in neighbouring countries to raise awareness, heighten surveillance and put in place an emergency response plan. A consortium of partners, including the Mozambique Department of Agriculture, International Institute of Tropical Agriculture (IITA), Stellenbosch University, Bioversity International, FAO, National Agricultural Research and Regulatory Organisations and government officials throughout Africa are being mobilised to address the outbreak, monitor plantations and raise awareness in Mozambique, the region and continent.

Studies in Mycology

Pedro Crous has advised that the latest issue of *Studies in Mycology* is now out. It covers "Plant Pathogenic and Endophytic Botryosphaerales known from culture".

See: <http://www.cbs.knaw.nl/index.php/studies-in-mycology/404-sim76>.

New exotic disease of rice in Colombia

A ProMED-mail PLANT post at <http://www.promedmail.org> on 11 December 2013 reports a new exotic disease of rice in Colombia as black smut (*Tilletia horrida* or *Tilletia barclayana*) as already spread throughout the country. Its method of entry into the country is unknown and it has been declared as a pest.

Mycopathologia

Celebrating its 75th anniversary, *Mycopathologia* was founded in 1938 as an international journal devoted to the study of the role of fungi in human and animal disease. Many of the milestones discoveries in the field of medical mycology have been communicated through the pages of this journal. A special commemorative issue is planned at the end of 2013 to mark this occasion. Please contact the Editor-in-Chief or the Publishing Editor to share your stories or suggestions in this special year of festivities. This journal publishes original articles and case reports highlighting important developments in the fields of medical and veterinary mycology.

Mycopathologia covers a diverse, interdisciplinary range of topics that is unique in breadth and depth. We also welcome papers on systematics and taxonomy of fungi involved in these fields. Timely opinion articles, mini-reviews and other communications are usually invited at the discretion of the editorial board.

The Editor-in-Chief is Vishnu Chaturvedi, New York State Health Department & Department of Biomedical Sciences, School of Public Health, Albany, NY, USA.

Details on the Submission and Publication procedures: No Page Charges; No Fees for Online Color Images; Optional Color Images in Print – Euro 950; Optional Open Access Publication Fee (APC) – USD 3000, Euro 2200.

Understanding the role of alternative host plants in tomato potato psyllid and *Liberibacter* life cycle and ecology

Project Leader: [Dr Jessica Dohmen-Vereijssen](#), Plant and Food Research, New Zealand.

This project aims to increase the knowledge of the role of non-crop alternative host plants in the life cycle and ecology of tomato potato psyllid (TPP) and *Candidatus Liberibacter solanacearum* (CLso).

The biosecurity problem this project aims to resolve/improve is to increase knowledge on the role of non-crop alternative host plants in the life cycle and ecology of TPP and CLso, with emphasis on spatio-temporal dynamics of TPP and transmission (acquisition and inoculation) of CLso in order to improve surveillance and monitoring techniques to develop effective Integrated Pest Management (IPM) programmes.

The key objectives of the project are:

- 1) To provide a scientifically validated list of NZ and Australian TPP and CLso crop and non-crop host plants that could potentially serve as overwintering, breeding and feeding sites or reservoirs. This information would help biosecurity agencies in Australia to improve their monitoring and cultural management by focusing on these host plant species.
- 2) To determine the spatio-temporal dynamics of TPP in relation to their crop and non-crop alternative hosts. Some questions are why and when do TPP leave an alternative host to infest a solanaceous crop.
- 3) To determine TPP fecundity and life table parameters on a selection of non-crop alternative hosts.
- 4) To characterise feeding behaviour of TPP on one crop and one non-crop alternative host. Preliminary research in NZ has shown differences in host plant CLso titres, which may be a result of host suitability but also transmission efficiency. More detailed studies are proposed in a PhD project.

If alternative hosts are clearly defined as feeding, breeding or overwintering hosts and their risk assessed, and spatiotemporal dynamics of TPP on non-crop alternative hosts is known, more targeted pest management strategies can be developed that could decrease the number of insecticide sprays needed to control the vector.

Stakeholder and end-user engagement: stakeholders and end-users will gain a better understanding of the impact of non-crop alternative hosts on vector abundance and seasonal fluctuations, disease severity, whether the alternate hosts are good hosts for the multiplication of CLso that may result in more effective and environmental friendly pest management.

Project development: this study will lay a solid foundation to allow further research with the ultimate goal to provide management strategies that fit within an IPM programme.

Spatiotemporal dynamics and transmission: end-users will be able to better target pest management strategies which will lead to cost savings.

This is taken from the "The Bud" Plant Biosecurity Co-operative Research Centre Report. See:

<http://www.pbcrc.com.au>.

The Crawford Fund

Neil Andrew, The Chair of the Crawford Fund, is pleased to provide an [e-copy of the Crawford Fund's Task Force report](#).

2013 has been a tumultuous year for agriculture in Australia and 2014 looks like being just as active as the National Farmers' Federation takes forward its Blue Print for Australian Agriculture and the Government initiates its discussion papers, Green Paper and White Paper, each focused on Australian agriculture.

I hope that this very important work takes proper account of the international dimension of Australian agriculture. As our report shows, Australia is a major beneficiary of aid-funded international agricultural research. Benefits include those provided to Australian farmers through new varieties of grains and plants and also to the Australian research institutions, which are strengthened through their engagement in the international networks.

The aim of aid-supported agricultural research must always be to increase global food security and reduce poverty by enhancing agricultural productivity and by increasing international trade. This research can also enhance the potential for Australian agricultural production, research capabilities and biosecurity.

Our report points to ways that the great work of the Australian Centre for International Agricultural Research (ACIAR) can further support Australian farmers, with a range of recommendations which I expect readers will find of interest.

The response to our report has been very positive. We had the pleasure of meeting, The Foreign Minister The Hon Julie Bishop, recently and were pleased to find her sympathetic to our findings and supportive of the work of ACIAR. It was also very positive to have NFF represented at the report launch this week, indicating their support for international agricultural research and their willingness to continue a dialogue. Media coverage on the report, such as in The Australian has also been positive.

The Task Force would welcome your comments on the report. We will now be embarking on a range of meetings and consultations, as well as State based events through 2014 to raise awareness and get further discussion on the issues the report raises.

Pospiviroids

A ProMED-mail Plant post at <http://www.promedmail.org> on 18 December 2013 referred to the occurrence of two pospiviroids, namely Tomato apical stunt viroid in France and Potato spindle tuber viroid in Poland.

Fungal Diversity

Fungal Diversity is now available from Springer and the current issue is number 1 of Volume 63 and deals with the Families of Dothideomycetes. The authors are Kevin D Hyde, E B Gareth Jones and many others.

Dothideomycetes comprise a highly diverse range of fungi characterized mainly by asci with two wall layers (bitunicate asci) and often with fissitunicate dehiscence. Many species are saprobes, with many asexual states comprising important plant pathogens. They are also endophytes, epiphytes, fungicolous, lichenized, or lichenicolous fungi. They occur in terrestrial, freshwater and marine habitats in almost every part of the world. We accept 105 families in Dothideomycetes with the new families Anteagloniaceae, Bambusicolaceae, Biatriosporaceae, Lichenocniaceae, Muyocopronaceae, Paranectriellaceae, Roussoellaceae, Salsugineaceae, Seynesiopeltidaceae and Thyridariaceae introduced in this paper. Each family is provided with a description and notes, including asexual and asexual states, and if more than one genus is included, the type genus is also characterized. Each family is provided with at least one figure-plate, usually illustrating the type genus, a list of accepted genera, including asexual genera, and a key to these genera. A phylogenetic tree based on four gene combined analysis add support for 64 of the families and 22 orders, including the novel orders, Dyfrolomycetales, Lichenocniales, Lichenotheliales, Monoblastiales, Natipusillales, Phaeotrichales and Strigulales. The paper is expected to provide a working document on Dothideomycetes which can be modified as new data comes to light. It is hoped that by illustrating types we provide stimulation and interest so that more work is carried out in this remarkable group of fungi.

See: [Fungal Diversity Volume 63, Issue 1, pp 1-313](#).

Acknowledgements

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