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# New Zealand Plant Protection Society (Inc)

## NEWSLETTER

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### May 2013

#### Editorial – John Fletcher Senior Scientist, Plant and Food Research, Lincoln

The Executive are delighted to announce the inaugural **NZPPS Travel Award** open to members who have been paid up members of the society for 5+ years (that's 2008-2012 inclusively). Applications are open NOW and close on July 1<sup>st</sup>. *Read the details page 4.*

The Executive have also been busy organising and facilitating various events over the past few months these include 'A snapshot of Psa – the sequel' which was held on 12 February 2013, in Mt Maunganui. This was organised in collaboration with Zespri most ably by Executive Members Kirstin Wurms, Karyn Froud, Toni Withers and Heather Pearson. Kirstin has written a summary of this event later in the newsletter (see page 2). This second successful symposium along with the one day pre conference symposium 2012 has set the scene for the 1<sup>st</sup> International Symposium on Bacterial Canker of Kiwifruit (Psa) taking place November 2013, again at Mt Maunganui (*see the notice page 7*).

A further opportunity for international exposure also occurs in November with the 19th Australasian Plant Pathology Conference (APPS Auckland 2013) will bring together scientists working in both basic and applied pathology research from New Zealand, Australia, Papua New Guinea and the rest of the world (*again see the notice on page 7*).

The announcement by Sir Peter Gluckman on the 1st May of the National Science Challenges is a significant encouragement to a science-led multi disciplinary approach to answer some of the 'big questions' confronting New Zealand. This is an opportunity for a collegial, collaborative approach to scientific research with a long time frame and builds on what we have already started. The structures of this programme are based on a scientific Challenge not on institutes or organisations. The Challenges were developed from consultation between a committee of mature and emerging scientists – (including a number of biologists) and the public who made over 1000 submissions. These ideas were distilled and assessed and finally formed the ten Challenges. Interestingly, 'The panel felt these Challenges were an important step forward in undoing the damage created by too much competition within the New Zealand science system over many years and the consequent effects of creating institutional, academic and disciplinary silos.' This is definitely a shift from the competitive model of the past towards collectivising research to benefit New Zealand.

The committee to their credit managed to persuade the government to commit instead of the \$60m originally promised, a further \$73.5m (\$133.5 min total over 3yrs). This is the largest injection of funds into New Zealand science for many years - a credit to all concerned. The intention is that this should complement base funding in CRIs, ensuring planning and flexibility thus allowing scientists to adapt to new challenges and it should create more security for science as a career in New Zealand.

Of particular interest to NZPP members should be the challenges touching on our disciplines. Especially: high value nutrition, New Zealand's biological heritage, towards more sustainable primary production, and enhanced biosecurity.

During the up-coming implementation phase it is important we engage with MBIE, the committee and their key participants to define how the targets should be met. It is important to develop a vibrant sustainable, dynamic, cohesive and a collegial collaboration between research participants and stakeholders.

Members are urged to engage in this opportunity for the science community to bring success. For further information the report may be found at: <http://www.pmcsa.org.nz/wp-content/uploads/Report-of-National-Science-Challenges.pdf>

## 'A snapshot of Psa' – the sequel

'A snapshot of Psa – the sequel' was held on 12 February 2013, in Mt Maunganui. The aims of this symposium were to disseminate the latest scientific findings and to encourage collaborative research on *Pseudomonas syringae* pathovar *actinidiae* (Psa) – a devastating pathogen affecting the global kiwifruit industry. Following the success of an earlier symposium on the same topic that was run by NZPPS in August 2012 before their annual conference, Zespri Group Ltd raised the idea of a second one-day symposium to be run by NZPPS.

Presentations at the symposium centred around two main topics:

- 1) Molecular advances, and
- 2) Epidemiology and biology of the vine-killing disease.

In the morning session on molecular advances, research was presented on characterising the genome of Psa, and the search for Psa genes that trigger the defence response (effectors) as well kiwifruit resistance (R) genes that target these effectors. After lunch, participants heard about various aspects of the Psa life cycle, entry points on the plant, influence of plant physiology, development of risk models and the latest results of research on biological control agents. Thanks to the generous sponsorship of AGMART and Zespri International, there were two overseas speakers both from the University of Tuscia in Italy, Giorgio Balestra and Angelo Mazzaglia. The talks on the European perspective and research results proved to be an invaluable addition.

The success of the conference was unprecedented, and exceeded expectations. There were 163 registrants (a record for this type of specialist symposium), including 80 from industry, 53 from crown research institutes, 14 from universities, six from government (Ministry for Primary Industries), nine growers and one full registration from the media (*New Zealand Kiwifruit Journal*). These numbers show that the symposium was meeting a real need for information and collaboration, and had value to those in the kiwifruit industry.

## The Global Herbicide Resistance Challenge

The Global Herbicide Resistance Challenge conference was held from 18–22 February in Fremantle Western Australia. This was the first conference focussing on herbicide resistance for several years and the first international conference on the subject since the recent explosion of glyphosate-resistant weeds. As such it was very well supported with 425 delegates from 28 countries. Outside Australia the most delegates came from USA, China, Germany, Brazil and Canada. This nearly reflects the largest users of Roundup Ready Crops.

During the conference two main themes for herbicide resistance were followed, target site resistance (usually from mutation of a single gene) and non-target site resistance (frequently involving multiple genes and as such is less well understood).

The appearance of glyphosate-resistant weeds in Roundup Ready crops is having a huge impact,

particularly in USA, resulting in a massive upsurge in herbicide use. The most common approach to avoiding appearance of more resistance in GM crops was to stack resistance traits to more than a single herbicide. To deal with the present glyphosate-resistant weeds (which in USA are all single gene) Monsanto announced new RNAi technology which floods and blocks the site of resistance making the weeds susceptible again within 24 h. This offers the possibility of an entirely new technology for crop protection. Other resistant weeds however are not so easy to deal with. This is especially true of rigid ryegrass in Australia which is resistant to so many herbicides that they are resorting to mechanical control and the big advance at the conference was the Harrington Seed Destructor, which destroys all weed seed leaving the combine harvester.

There are now nearly 400 confirmed herbicide resistant weed species globally and there is no longer a single mode of action which has not resulted in resistance somewhere. The conference provided both insights into understanding herbicide resistance and solutions to current problems.

NZ'ers contributed three papers covering resistance in fathen and giant buttercup, both of which have resistant populations widespread in NZ.

## Membership Fees

NZPPS membership fees for the 2013/14 year are now due for renewal and will be posted out to all members to the postal address we have for you, so watch out for it!

Fees are \$85 per annum for full members, \$20 for associate/students, and \$300 for corporate membership.

## New Zealand Plant Protection Society Symposium and Annual Conference 2013

This year's conference will be held in the **Napier War Memorial Conference Centre from 13-15 August 2013**. We are planning another exciting conference complete with professional development for members again organised by Karyn Froud.

### Conference fees:

Symposium: \$150

Early Bird = \$320

Students: \$190 (dinner additional)

One day conference fee: \$190 (dinner additional)

Dinner \$100 (Dinner/Bus/Band/Wine)

Late fee \$50 for members & non members

## Back by popular demand!

## Professional Development Courses

After the success of last year's professional development courses, this year we are running two further professional development courses during the conference.

These will run as concurrent sessions on the Tuesday afternoon and Wednesday morning of the conference. Our professional development sessions this year were inspired by our ever watchful journal editor and several members of the NZ Plant Protection Journal editorial committee. The two sessions are aimed at taking the pain out of constructing a concise and meaningful scientific paper and will also be useful to those who review and referee papers. As both courses are only 90mins long they will not cover the process from beginning to end but will be delving into great detail into how to clearly introduce your research "Writing a good Introduction" and on the most problematic section of a scientific paper "Getting the Results right". The course will also cover what needs to be included, how to logically structure your work and how to use tables and graphics to their best advantage.

The conference will be again preceded by a one day symposium on Monday 12 August, '**Risk Analysis for Imports and Exports**'- advertised below.

We are currently in negotiation with the Pania Lodge Motel (opposite the Conference Centre) regarding accommodation. **Details will be posted on our webpage ([www.nzpps.org](http://www.nzpps.org)).**



### **Risk Analysis for Imports and Exports**

Hosted by: NZ Plant Protection Society

**Monday, 12 August 2013**

Napier War Memorial Conference Centre

#### **The goal:**

To bring together scientists/professionals with risk analysis for imports and exports expertise for one day of presentations and discussions to explore ways to better analyse risks on import and export pathways, based on our current collective knowledge.

Sessions of scientific and regulatory presentations will be arranged around three sessions, concluding with an open discussion session.

#### **Session 1: Overview of challenges in risk analysis for imports and exports**

##### **The NZ Phytosanitary system - International and Domestic Context**

Phyto system, ISPMs, NZ import/export system, roles and responsibilities (regulators, industry, researchers, public)

*Stephen Butcher, MPI*

#### **Challenges in risk analysis**

What information to use/from where, uncertainty, translating risk in to risk management

*Christine Reed, MPI*

#### **Analysing risk on pathways where a systems approach to managing risks is proposed**

Lessons learnt from EU

*John Mumford, Imperial College*

#### **Session 2: Risk identification**

##### **Using border information in smarter ways for identifying risks and monitoring performance of risk management**

Interception analysis, inspection levels, improved data capture

*Andrew Robinson, ACERA*

##### **Other contributed presentations e.g.:**

- Emerging risks and ranking organisms
- Risks around deliberate introductions
- How to predict risks to natural environment

#### **Session 3: Risk assessment and management Bayesian networks to analyse risk on a pathway and manage uncertainty**

*Ann Nicholson, Monash University*

##### **Other contributed presentations e.g.:**

- Examples of risk assessment and management model development on import and export pathways (e.g. forestry, fresh produce etc...)
- Impact of changing pest management systems on risks on exports and imports
- Using databases, data mining and spatial analysis in pathway risk assessment and management

#### **Further enquiries contact**

[Lisa.Jamieson@plantandfood.co.nz](mailto:Lisa.Jamieson@plantandfood.co.nz)

### **Update: 'Utilising Plant Defence for Pest Control'**

The 2011 New Zealand Plant Protection Society (NZPPS) pre-conference symposium on "Utilising Plant Defence for Pest Control" is currently in the final stages of preparation and will be published shortly. Once the printing has been completed, the Proceedings will be sent out and will also be available at the 2013 NZPPS annual conference. Each corresponding author will receive a copy of the book as soon as it becomes available."

## New Zealand Plant Protection Medal



If you would like to honour someone who has made an exceptional contribution to plant protection, consider nominating them for this medal. The medal is awarded for outstanding services to plant protection, whether through research, education, implementation or leadership.

**Nominations close on 1 July.**

**Criteria:** New Zealand Plant Protection Society Inc.  
<http://www.nzpps.org/medal.php>

- Nominees do not necessarily have to be members of New Zealand Plant Protection Society. However, those nominating anyone **MUST** be a member of the New Zealand Plant Protection Society.

- Each nomination must include a seconder, who should also be a member of New Zealand Plant Protection Society.

- Nominees would normally be expected to be living in New Zealand, but people living overseas with strong New Zealand connections will also be eligible.

**Nomination forms available at [www.nzpps.org](http://www.nzpps.org). Please send your nominations to; The Secretary, New Zealand Plant Protection Society, P.O. Box 14018, Christchurch 8544.**

## Scholarship Applications Reminder



Applications for the 2013 **New Zealand Plant Protection Society Research Scholarship** and the **Dan Watkins Scholarship in Weed Science** are due by 1st October. Scholarship applications for students registered at a university or other recognised New Zealand tertiary institutions will be considered.

## **NZPPS announces a new travel award**

The executive of NZPPS has given a lot of thought to the needs of its members. It was universally agreed that there are many scholarships and awards available for students and recent graduates, but as one matures into your science career, these awards get scarcer and more competitive. Often a few thousand dollars in an external grant or award can make the difference

between getting approval for a conference attendance or overseas research trip, or not. So we are delighted to announce the inaugural **NZPPS Travel Award** of \$2,500 open to members who have been paid up members of the society for **5+ years** (that's 2008-2012 inclusively).

Applications are open NOW and close on July 1<sup>st</sup>! So don't delay visit [www.nzpps.org/awards](http://www.nzpps.org/awards) and fill in your application form to be in to win!



Further details:

### **Eligibility:**

NZPPS welcomes applications from as wide a range of members as possible, including technical staff as well as scientists. Travel Award Funds are to be used at the successful candidate's discretion including use for conference attendance, and/or training, either nationally or internationally. Funds must be used within 1 year of receipt, with the successful recipient being announced at the annual conference dinner (August each year).

1. Applicants must be current financial members of the NZPPS and having paid ordinary membership for 5+ consecutive years. (Email [secretary@nzpps.org](mailto:secretary@nzpps.org) to check your membership eligibility).
2. Applicant must describe the value of their proposed travel to plant protection in New Zealand.
3. Applicants will need to list all international scientific research and conference travel they have made within the last 3 years, as preference will be given to those who have had less opportunity to travel overseas recently.
4. The successful applicant will be required to write a short report detailing a description of the benefits derived before the next annual conference following the receipt of the scholarship. This will be published in the NZPPS newsletter and on [www.nzpps.org](http://www.nzpps.org).
5. Applicants will be required to have the signed endorsement of their application as a true record, from a current employer or direct manager.

### Application Process:

1. Applications must be received by 1<sup>st</sup> July, being a month before the annual conference (obtain application form from [www.nzpps.org/awards](http://www.nzpps.org/awards))
2. A subcommittee from the NZPPS executive screens out any application forms not meeting eligibility criteria above and decides on up to 10 finalists.
3. Names of these finalists are placed in a hat and the president randomly draws out the winning name at the conference annual dinner (recipient does not need to be present at the dinner in order to receive the award).

### So be in to win!



We are pleased to announce that the **1<sup>st</sup> International Symposium on Bacterial Canker of Kiwifruit (Psa)** will be taking place from the 19<sup>th</sup>– 22<sup>nd</sup> November 2013, at the ASB Baypark Arena, Mt Maunganui, New Zealand.

For more information on the Symposium please visit: [www.psa2013.co.nz](http://www.psa2013.co.nz).

**Yvonne McDiarmid**  
Events & Sponsorship Manager  
[yvonne.mcdiarmid@plantandfood.co.nz](mailto:yvonne.mcdiarmid@plantandfood.co.nz)



### The 19th Australasian Plant Pathology Conference.

The 19th Australasian Plant Pathology Conference (APPS Auckland 2013) will bring together scientists working in both basic and applied pathology research from New Zealand, Australia, Papua New Guinea, Asia and the rest of the world. A full programme including workshops will be presented from 25<sup>th</sup> –28<sup>th</sup> November 2013, University of Auckland, Auckland, New Zealand. <http://www.apps2013.co.nz/>

## Books for sale

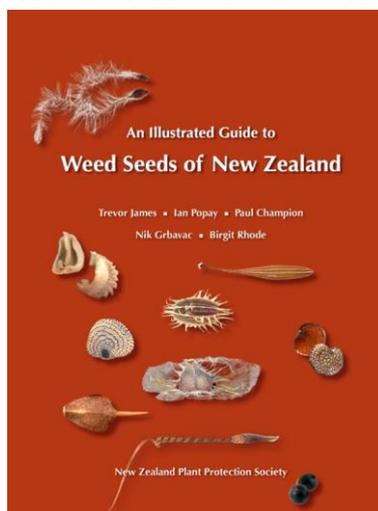
All publications, as well as back issues of New Zealand Plant Protection and most Conference Proceedings, are available from: Manaaki Whenua Press, PO Box 40, Lincoln, Canterbury, New Zealand (MWPress@landcareresearch.co.nz). Some that are available are listed below:

**Note- New Zealand Plant Protection Society members receive a discount provided they identify themselves as members at the time of ordering.**

Book Title	Date	\$
An illustrated guide to common grasses, sedges and rushes of New Zealand	2012	\$ 59.99
An Illustrated Guide to Common Weeds of NZ (3rd edition)	2010	\$ 59.99
Paddock to PCR: demystifying molecular technologies for practical plant protection	2011	\$ 39.95
Microbial Products: Exploiting Microbial Diversity for Sustainable Plant Production	2010	\$ 39.95
Surveillance for Biosecurity: pre-border to pest management	2008	\$ 39.95
Future challenges in crop protection: repositioning NZ's primary industries for the future	2008	\$ 39.95
Managing wilding conifers in New Zealand: present and future	2004	\$ 35.00

## New Book

**An Illustrated Guide to Weed Seeds of New Zealand**  
Trevor James, Ian Popay, Paul Champion, Nik Grbavac and Birgit Rhode (2012) ISBN 978-0-473-22410-3  
Released since the last conference was the Societies



latest book "An illustrated guide to weed seeds of New Zealand" by James, Popay, Champion, Grbavac and Rhode.

This book provides a wide audience with access to expert seed identification and will be an invaluable tool for anyone working in agricultural or horticultural production, ecological research or

plant pest management, and for anyone with a general interest in plants.

It has an aid to the identification of the propagules of common naturalised and native plants of NZ, and of weeds of other countries that aren't present in NZ but often intercepted in consignments imported from overseas. It is not strictly about 'seeds' in their bare form, rather the form in which they are most likely to be found or seen; for this reason it includes photographs of 'seeds' with and without appendages such as spiny protrusions, wings or bracts.

The helpful introduction includes an identification aid and glossary. There are 116 pages of colour photographs, with 696 images illustrating 623 different species. A brief description and distribution information are given for each seed.

This and other NZPPS publications will be on sale at the Napier (2013) conference or can be ordered via the NZPPS web site or direct from Manaaki Whenua Press. RRP \$49.99.



Also available through Manaaki Whenua Press are CSIRO publications of interest to members these titles include:

**Wetland Weeds:**

<http://www.publish.csiro.au/nid/18/pid/6579.htm>

**Controlling Invertebrate Pests in Agriculture:**

<http://www.publish.csiro.au/nid/18/pid/6734.htm>

**Australia's Poisonous Plants, Fungi and Cyanobacteria:**

<http://www.publish.csiro.au/nid/18/pid/6507.htm>

**Biological Control of Weeds in Australia:**

<http://www.publish.csiro.au/pid/6509.htm>

**Native Grasses:**

<http://www.publish.csiro.au/pid/2646.htm>

**Life in a Gall:** <http://www.publish.csiro.au/pid/6814.htm>

**AusGrass FLASH DRIVE:**

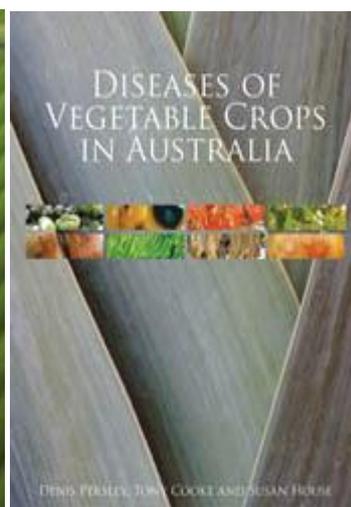
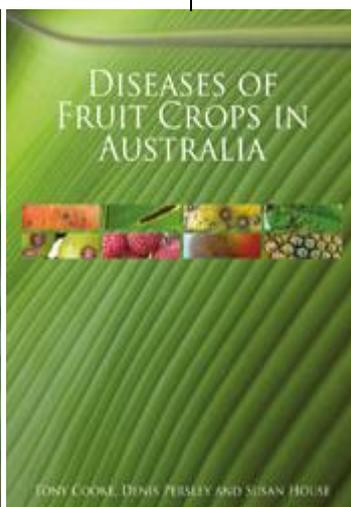
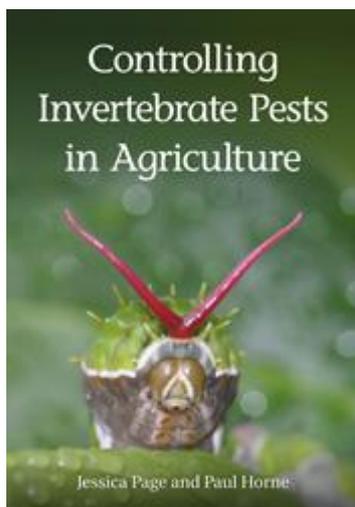
<http://www.publish.csiro.au/pid/3296.htm>

**Diseases of Fruit Crops in Australia:**

<http://www.publish.csiro.au/pid/6055.htm>

**Diseases of Vegetable Crops in Australia:**

<http://www.publish.csiro.au/pid/6057.htm>



## NZPPS Corporate Members

Agrisearch Analytical (NZ) Ltd,  
AgResearch Limited  
Agrivet Services Ltd  
Agronica New Zealand Ltd  
BASF New Zealand Limited  
Bayer CropScience  
Dow AgroSciences Ltd  
Etec Crop Solutions  
Field-Tek Ltd  
Foundation for Arable Research  
Horticulture New Zealand  
Kenzo NZ Ltd  
Landcare Research  
Ministry for Primary Industries  
Nufarm NZ Limited  
Omnia Nutriology  
Orion Crop Protection  
Peracto NZ Ltd  
PGG Wrightson / Fruited Supplies  
Pipfruit New Zealand Inc.  
Plant & Food Research  
Plant Protection Chemistry NZ  
Scion  
Syngenta Crop Protection Limited  
Zelam Limited  
ZESPRI International Ltd

## Future conferences

**The XVI International Botrytis Symposium** in Bari, Italy. 23-28 June 2013. See:

<http://www.xvibotrytisymposiumbari.it>.

**Fusarium Laboratory Workshop** in Manhattan, Kansas, USA. 23-28 June 2013. See:

<http://www.plantpath.ksu.edu>.

**4th International Symposium on Tomato Diseases** in Orlando, Florida, USA. 24-27 June 2013.

See: <http://nfrec.ifas.ufl.edu/4istd/index.shtml>.

**The 1st International Conference on "Wild Plant Pathosystems"** in Olomouc, Czech Republic.

2-5 July 2013. <http://wpp2013.upol.cz/site/>

**XIII International Workshop on Fire Blight** in Zürich, Switzerland. 2-5 July 2013. See:

<http://www.fireblight2013.org>. Contact: [fireblight2013@agroscope.admin.ch](mailto:fireblight2013@agroscope.admin.ch).

**Biodiversity and Integrated Pest Management: Working Together for a Sustainable Future, 4-5,**

**July 2013, North Sulawesi, Indonesia** <http://www.oired.vt.edu/ipmcrsp/biodivipm2013/>

**International Chemical Ecology Conference, 19-23 August, Melbourne, Australia**

<http://www.iita.org/ipve>

**10th International Congress of Plant Pathology (ICPP2013) in Beijing, China. 25-30 August**

**2013. See:** <http://www.icppbj2013.org/>

**Asian Pacific Weed Science Society Conference** being held in Bandung, Indonesia on 22-25

October 2013. [www.apwss2013.com](http://www.apwss2013.com)

**1st International Symposium on Bacterial Canker of Kiwifruit (Psa)** 19-22 November 2013, Mt

Maunganui, New Zealand <http://www.psa2013.co.nz/>

**19<sup>th</sup> Australasian Plant Pathology Conference, 25-28 November 2013, Auckland**

<http://www.apps2013.co.nz/>

**2nd Global Conference on Entomology**, November 8-12, 2013, Kuching, Sarawak, Malaysia

<http://www.gce2013.com/>

**The XVII Congress for the International Union for the Study of Social Insects**, Cairns, Australia,

from 13–18 July 2014. <http://www.iussi2014.com/>