



New Zealand Plant Protection Society (Inc.)

Newsletter

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Greetings

Isn't it nice being part of an industry that, for the first time in nearly 20 years, is recognised as being of vital importance to the New Zealand economy? Isn't it nice having politicians and economists talk about the rural upturn, the provincial economy leading the country's recovery and about agricultural exports bridging the abyss across economic depression so that we can catch the upswing when international economies recover again?

I'm sure many of us feel that the lack of interest in our primary industries comes from the top, with the government talking down the importance of agriculture, horticulture and forestry. That in turn has led to the decline in funding for applied research. We can only hope that the government appreciates what is saving its bacon and that it starts to support once again the research that has helped drive that economic recovery.

Successive governments over the last 20 years have neglected other areas of vital importance to agriculture. Biosecurity is one area of major concern. We hear all about mosquitoes and snakes, but if they can get here then think of all the smaller eggs, seeds and spores of pests and diseases that must now be in the country, awaiting their opportunity. We have to feel sorry for British farmers beset with BSE and Foot and Mouth, but the increased surveillance that their misfortunes have forced at our container terminals and airports must bring huge benefits to our border security against all kinds of potential problems.

Ian Popay

From the Editor

Papers are coming in thick and fast! Thanks very much to those people who got their papers in early so that we could start getting them refereed and sent to the printer for layout. Matthew Cromey and Ralph Allen deserve special mention as their papers are already completed.

Please take a moment to think of the huge amount of work involved in formatting and laying out the book – that's why deadlines are so tight! This year we have changed the printer to Caxton in

Christchurch. It has been really important to get things organised early so that they can get their systems set up.

With a good range of papers across all disciplines, this year's conference will be very interesting. Remember that it is probably easiest to contact me by email (Zydenbos@xtra.co.nz) if you have any questions; otherwise you will probably find yourself competing with 18 month old Luke!

President's Message

Well, the season is over, and the dry conditions continue to be felt across the country. The NIWA statistics show that quite extreme conditions have been experienced in many regions. For example, six of the past seven months in Canterbury have set sunshine and (low) rainfall records. While the fine weather has been enjoyed by many, unexpected plant protection implications have also been felt by farmers and growers in many sectors. For apple growers in Nelson, the season has meant very significant market access difficulties in USA, possibly due in part to the dry season changing the insect behaviour towards hiding inside the fruit at a higher rate than normally seen.

This type of subtle change in the attributes of a pest or disease is hard to predict, but highlights the importance of ongoing support for research in the face of changing environmental, market and pest management conditions. Plant protection is a bit of a co-evolutionary dance, where the changing rules ensure that the relationship between the participants is dynamic and somewhat unpredictable. A recent paper by David Pimental and colleagues* on the costs of invasive pests, disease and weeds to various countries highlighted the increasing international awareness of biosecurity threats around the world. Recent high profiling of the issue here has continued unabated, supported by the foot and mouth outbreaks in various places from Argentina to Europe. Some incursions are apparently relatively benign, while others bring the risk of significant new costs. As broad-spectrum products become less important for New Zealand production

systems, new pests and diseases will have an increasingly large impact on management programmes.

The positive side of the discussion appears to be a re-evaluation of the fundamental importance of agriculturally-based industries to New Zealand's economic well being, after a pendulum swing into "knowledge economy-land". Of course we must have the best-equipped tools and ideas to support our land-based activities, but the policy framework needs to recognise the realities that exist across the landscape. This hasn't always been the case, and many plant protection researchers have had a problem with the view from Wellington that the production-based activities were seen as disconnected from the "environment". The ecologists amongst us recognize this fundamental inter-relatedness, and there are very numerous examples of pest implications across several sectors. The largest example of this is undoubtedly the possum, a vector of TB and very significant pest of the natural estate. The Plant Protection Society has an important role to play in educating the wider community in these issues. The risks associated with dividing plant protection research and development between sector-based institutes were recognized when CRIs were formed, but these issues are more important than ever, 10 years on.

On another note, our improved framework for encouraging participation in the Society from universities and students appears to be working, with increased interest in both the Travel Grant and Scholarship (which will go up to \$3000 this year). The decline in number of students following a career into plant protection is mirrored in many other fields of biological sciences, and these small incentives are only a gesture which need to be supported by other measures. Your ideas are welcome.

For the agrichemical industry, the long coming ERMA jurisdiction will mean big changes to the pesticide registration process. Be sure to get those transition applications in by early July ! (NB: the actual date may be subject to slippage.)

Our conference is shaping up well, with interest from a wide range of quarters. Our

invited guest (Dr Gabor Lövei) will shed some light on recent developments in European field trials involving genetically modified plants, while the panel discussion should provide some interesting local insights. I look forward to seeing you in Palmerston North in August.

Max Suckling

President

May 1, 2001

*Pimental et al. 2001. Economic and environmental threats of alien plant, animal and microbe invasions. *Agriculture Ecosystems and Environment* 84: 1-20.

\$1000 Reward!

The New Zealand Plant Protection Society is offering a sum of \$1000 for the task of preparing a Sustainable Farming Fund (or equivalent) proposal with a view to developing a website on Pesticide Resistance Management.

If you are interested could you please contact either Stephen Goldson Ph 03 983 3911 , email stephen.goldson@agresearch.co.nz or Alison Stewart on 03 325 2 811, email stewart@lincoln.ac.nz

Research Scholarship

The Society awards annually a Research Scholarship. This scholarship is to encourage research in relevant disciplines (entomology, plant pathology, weed science, zoology, ecology, and plant protection sciences), on topics relating to control of pests, pathogens and/or weeds in primary production (pastoral and arable agriculture, horticulture, forestry), or the natural or human environments. Applications from students registered at a university or other recognised New Zealand tertiary institutions will be considered. Applications close on 1 October 2001.

Further information and an application form are available from the Society's web site www.hortnet.co.nz/nzpps.

Conference 2001

The 2001 New Zealand Plant Protection Conference will be held from Tuesday 14 August till Thursday 16 August. The venue will be the Quality Hotel, 110 Fitzherbert Avenue, Palmerston North. For people wishing to book rooms at the venue, special reduced room rates have been negotiated, starting from \$89.00 + GST per night. Bookings can be made by phone (06 356-8059) or fax (06 356-8604), but do mention you are attending the conference to get the reduced rates. A number of motels are also situated nearby.

A special feature of this year's conference will be the introduction of commercial displays so that conference delegates can be kept up to date with what is happening in the plant protection industry. There will be the usual range of high quality scientific presentations over the three days, and poster papers will be presented on Tuesday night as part of a wine-and-cheese evening. The annual general meeting of the Society will be held on Wednesday afternoon, and the annual dinner will be on Wednesday night. It's promised that the entertainment at this year's dinner will be an improvement on last year's effort.

- Kerry Harrington
(k.harrington@massey.ac.nz)

Potted biographies of the Society's executive committee members (continued)

Philippa Stevens graduated with a Masters of Science from the University of Auckland in 1988. Since that time she has worked at the Mt Albert Research centre, originally for DSIR, and later HortResearch. Philippa originally worked in the area of post-harvest disinfestation, and then was briefly involved in screening potential resistance factors for incorporation into plants. However in 1991 she began working on Integrated Pest Management and organic pest management of kiwifruit and sub-tropical crops. Philippa has broad research interests ranging from the development of pest monitoring systems, non-chemical means of controlling pests, pheromones, insect behaviour, chemical

control, and biological control. Philippa greatly enjoys interactions with growers and industries in the horticultural sector, and also the interactions with other scientists and industry representatives that occur at the annual New Zealand Plant Protection Society conference.

Yellow flower wasp

Barbara Barratt, Agresearch Invermay, has been involved with MAF Biosecurity in getting information out on a new wasp discovered in NZ last year. She has asked us to ensure that members are aware of it, so here is some information about it.

Yellow Flower (or Scoliid) Wasp (*Radumeris tasmaniensis*)

What is it?

The yellow flower (or scoliid) wasp is native to Australia and Papua New Guinea. In Australia the wasp is present throughout eastern and southern parts with a few records from inland and north-western Australia. This species is ectoparasitic (it lives on the outside of its host) and solitary in nature. Instead of forming a nest, the female tunnels into soil and locates a scarab beetle larva, which it stings and paralyzes before laying an egg nearby. The larva then becomes a source of food for the young wasp as it grows. Adult wasps feed on nectar and honeydew. Both females and males are active on warm, sunny days and may be observed flying low over soil surfaces.

What's the big deal?

Prior to February 2000, the yellow flower wasp had not been recorded in New Zealand. In February 2000, several of these wasps were found amongst sand dunes in Northland. The wasp is a parasite of scarab beetles and for this reason, scientists are concerned that there may be a risk to native beetle species. Currently very little is known about this wasp, and scientists are keen to find out where it is present in New Zealand. The Ministry of Agriculture and Forestry (MAF) and the Department of Conservation (DOC), with support from the Northland Regional Council (NRC) are co-ordinating an investigation to try to answer some of these questions and to identify whether any risk is posed by the wasp to native beetles.

What to do if you find one

The Northland Conservancy, DOC would like to receive reports of any sightings of wasps that you think match the description of the yellow flower wasp. If you are able to collect a specimen of the wasp and drop it in (or post it) to your local DOC office, it would be greatly appreciated. Samples of wasps can also be dropped off (or posted) to staff at one of the Northland Regional Council offices (address and phone numbers opposite). They can be collected by inverting a small jar or container over them and replacing the lid. Wasps can be killed humanely by placing them in a deep freeze for a few hours. To mail or transport specimens, they can be stored in a film container (or something similar). When you are sending samples, please also include information stating where the wasp was found and the date and time of day it was collected. Please also include your own name and contact phone number, in case further details are needed.

This wasp is not believed to sting humans.

However, as when handling any wasp species, care should be taken.

What do they look like?

Females have a dark brown thorax, a narrow 'waist' and the broad abdomen is orange with narrow black stripes across its width. The underside of the abdomen has wider black stripes, alternating with narrower whitish stripes. Males have a narrower abdomen with alternating black and yellow stripes of similar width on the upper and lower surfaces. The female has short antennae about the same length as the width of the head; the male has longer antennae, about half the length of the forewings. Both male and female have orange to brownish wings, with very fine veins towards the wing tips.

Where have they been found?

So far, the yellow flower wasp has only been found in three sites in New Zealand. All three sites are isolated coastal spots in Northland – Cape Maria van Diemen and North Herekino Head on the West Coast, and Whareana Bay, south of North Cape.

Department of Conservation:

Post to:

Andrea Booth, Northland Conservancy, 149-151 Bank Street PO Box 842, Whangarei Tel: 09 438 0299 e-mail: abooth@doc.govt.nz

Or drop off at the following offices:

Te Pahi Tel: 09 409 7521

Kaitaia Area Office, 127 North Road, Kaitaia
Tel: 09 408 6014

Kerikeri Area Office, Landing Road, Kerikeri
Tel 09 407 8474

Waipoua Field Centre, Waipoua Forest Park
Tel: 09 439 3011

Russell Field Centre, The Strant, Russell Tel:
09 403 9005

Whangarei Area Office, 8A Kaka St,
Whangarei Tel: 09 430 2133

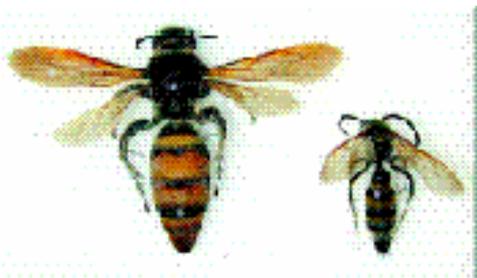
Northland Regional Council:
192 Commerce St, Kaitaia Tel: 09 408
1451

Robert St, Whangarei Tel: 09 438 4639
61b Victoria St, Dargaville Tel: 09 439
6662

Beechy St, Opuia, Paihia Tel: 09 402 7516

For general information you can also contact:

Ministry of Agriculture and Forestry,:
ASB Bank House, 101-103 The Terrace,
PO Box 2526, Wellington
Gita Parsot Tel: 04 498 9806



Left: Female wasp Right: Male wasp - actual size

Females are up to 30mm long with a wingspan of up to 40mm, and a large, robust body.

Males are smaller, up to 20mm long with a wingspan of about 25mm.

Plant Protection Society Website

Don't forget to bookmark the Society's website (<http://www.hortnet.co.nz/nzpps/>) and check it out from time to time. It contains, for example, past proceedings of the conference, contact details of committee members and information on the upcoming conference. On it you will find a reminder that we still have copies of *An Illustrated Guide To Common Weeds Of New Zealand* and other publications for sale through Manaaki Whenua Press.

The Thin Green Line?

Enhancing our Primary Resource Advantages

NZIAS & NZSHS Convention

27-29 June 2001

Lincoln University

The Thin Green Line? Enhancing our Primary Resource Advantages deals with the implications for New Zealand's primary resource sector of maintaining and expanding its share of an increasingly competitive global market. Critical issues to be covered include:

- the challenge of production versus protection
- the increasing difficulties of maintaining biosecurity
- ways to enhance the quality of our environment
- the impact of new technologies
- the development of new opportunities

Is the thin green line in danger of being breached? How can we strengthen it to improve our competitive edge? These are important questions for all those involved in the primary resource sector. This is your invitation to participate in Convention 2001.

Registration: Helen Shrewsbury
Lincoln University
Tel: (03) 325 2811 ext 8955
Fax: (03) 325 3840
Email: shrewsbh@lincoln.ac.nz

SCIENTISTS ARE "BORING ECCENTRICS"?

Children as young as 8 years old may be put off the idea of becoming scientists because they see them as "middle-aged white males who never have fun", educationists in the United Kingdom say.

The researchers - from the National Centre for Initial Teacher Training in Primary School Science (SCI Centre) - surveyed between 4,000 and 5,000 children in Leicester, England, and Perth, Australia.

When asked to draw a scientist, children - from the age of eight or nine - were likely to

draw a white male, with facial and/or eccentric hair, wearing glasses and a white jacket, Director of SCICentre and senior lecturer at the university, Dr Tina Jarvis, said.

Boys never drew women and only very occasionally would a girl draw a female scientist, Dr Jarvis said. It was also rare for a black or Asian student to draw a black or Asian scientist.

The "mad professor" image of scientists portrayed on television and in films did not help, Dr Jarvis said. If they were to develop a lasting interest in science, she said, it was vital to capture children's imaginations before the age of 11. "In other words, if the child hasn't enjoyed science prior to this age then the child may never enjoy science. The subject is then lost to them and makes little sense in secondary school."

Dr Jarvis believes that, with the current emphasis on the literacy and numeracy hours in primary schools, science is being squeezed.

- Royal Society Alert 159 20 December 2000

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