New Zealand Plant Protection Society (Inc)

NEWSLETTER

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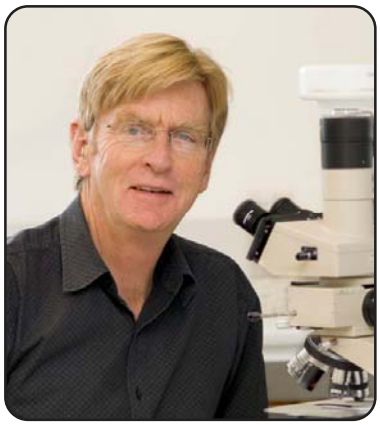
Guest Editorial - *Prof Richard Falloon* -

- **Scientist - Plant Pathologist, New Zealand Institute for Crop & Food Research Limited, Christchurch**
- **Deputy Director, Bio-Protection Research Centre, Lincoln University**
- **President, International Society for Plant Pathology**



It is a pleasure and an honour to prepare this contribution for the New Zealand Plant Protection Society Newsletter. I welcome this opportunity to convey some personal thoughts in three areas: firstly (and locally) on the New Zealand Plant Protection Society (NZPPSoc), secondly on the New Zealand science system, and finally observations on the plant pathology scene from a broader global perspective.

The NZPPSoc has been an important influence in my research career, which began in 1972. I joined the Society soon after beginning work in Plant Diseases Division of DSIR, and was involved with its management for 20 years from the late 1970s. The NZPPSoc is unique. The extent of plant protection sciences we encompass (weed science, entomology, and plant pathology) is broader than equivalent science fraternities in other countries. We have an unequalled record of refereed pre-publication of the research reported at our annual conferences. The Society's activities continue to be vibrant and forward-looking, and the long tradition of excellence and timeliness continues to be actively and successfully nurtured. New Zealand plant protection scientists and practitioners are very lucky to have this Society as a vehicle for knowledge exchange, communication and collaboration at personal, institutional and political levels. This Society has very worthy traditions to maintain, which were first instigated by weed researchers and their colleagues who gathered at Lincoln College in 1948 for the 1st New Zealand Weeds Conference, and were later established in the New Zealand Weed Society, evolving into the New Zealand Weed and Pest Control Society and the New Zealand Plant Protection Society.

Some thoughts on ***the New Zealand science system*** are particularly pertinent at a time when entomologists and plant pathologists associated with the Bio-Protection Research Centre are engaged in the resource-consuming "negotiation" processes run by the New Zealand Foundation for Research, Science & Technology. These processes will secure continued long-term funding of research on soilborne pests and diseases in pasture, forestry, arable and vegetable crops, aiming to develop "sustainable" methods for managing some of the most intractable and economically damaging problems associated with key New Zealand biological industries.

New Zealand's scientific community has long been lamenting the huge time and intellectual resources required to convince administrators of the science funding system of the value of our work, and of the need for long-term research horizons and adequate and stable (inflation-adjusted) funding. In my experience, New Zealand is the only country where scientists must routinely expend so much effort on obtaining funding and tenure. Our concerns, echoed by our employers, are now beginning to be heard. The recently released *Science Manifesto* from the Royal Society National Science Panel (which includes NZPPSoc member Prof Steve Goldson), will continue the impetus in this gathering tide of opinion, under the slogan "because New Zealand needs great science". Politicians and government

Continued on page 2...

Guest Editorial (continued)

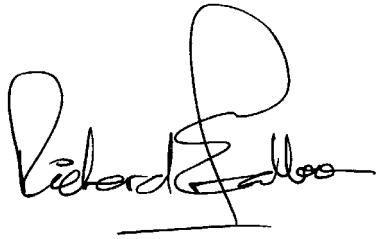
agencies must take heed of these opinions if we are to save, revitalise and expand this country's scientific knowledge and capacity to innovate.

To my mind, a particularly destructive aspect of the current New Zealand science funding system is the recruitment of the most able early- and mid-career scientists into the burgeoning ranks of authors of funding applications. Our most productive researchers should be producing new knowledge, but the current system demands that they ensure continued funding streams for themselves, colleagues and institutions. Success with funding initiatives gives some satisfaction, but it cannot compare with the individual fulfilment, or the potential wider value, from research advances that help alleviate intractable industry problems, including those caused by crop weeds, pests, and pathogens.

Now to a global perspective. The International Society for Plant Pathology has for several years been developing a focus on global food security, which results from the growing realisation of the pressures imposed by world population growth and the need for plant pathology to assist food, fibre and fuel supply. While global food production has continued to expand by 1-2% per year, world population growth (approx. 80 million each year) continues to put pressure on all aspects of human activity, including food production. World population (currently over 6 billion) will be 9 billion by 2050. Today, 800 million are chronically malnourished, and 30% of people in the world lack food security. These figures are beyond easy comprehension, particularly from our viewpoint in an affluent country with low population pressures. Nonetheless, the recent sharp increases in commodity food prices, and increasing evidence of severe erosion of environmental quality are manifestations, either direct or indirect, of the increasing demands and pressures caused by expanding world population.

It has been estimated that plant pathogens cause crop losses worth approximately $US150 billion each year, and the losses due to pests and weeds are each likely to be of similar order. I recently attended plant pathology conferences in Indonesia and India, and it is strikingly clear that we all face similar research challenges. Plant pathogens everywhere have similar biological characteristics, they adapt to human crop production (and plant protection) practices, they very often cause drastic reductions in quantity and quality of harvested products, and they pose severe and often insoluble problems for crop producers. Our research disciplines are increasingly required to provide environmentally acceptable (benign) solutions, as the challenges of providing adequate nutritious food supply become increasingly difficult. Pressure for unsustainable biofuel production will require plant protection inputs, but taking land from food production will only exacerbate the food security crisis.

Conclusion. These three topics are disparate in scope and scale. Nonetheless, when we consider the local and international significance of our research disciplines, they have a unifying theme. Plant protection scientists will continue to provide the knowledge necessary to produce food, fibre and fuel crops sustainably. They will carry out research on the causes, effects, treatment and prevention of plant diseases and pests and ways to manage weeds. All of these pest organisms harm crops that produce the world's food, fibre and fuel. Members of the NZPPSoc will continue to provide relevant science to assist with effective management of problems caused by pest organisms, making valuable contributions to New Zealand's biological economy. It is essential that this research continues to be efficiently and effectively supported by the New Zealand science funding system. On a global scale, the challenges of crop protection faced by our colleagues are much the same. By working together and sharing knowledge through our networks we can maximise the value gained from research outputs. This will be essential if the plant-based industries are to continue to provide sustenance for the world in general, and an economically sustainable future for New Zealand in particular.



"INTRACTABLE WEEDS AND PLANT INVADERS" SYMPOSIUM

To be held in Osijek , Croatia from 14 to 18 Sept. 2008. The Symposium will be organised by EWRS working groups:

Invasive plants, Biological Control of Weeds and Weed Management in Arid and Semi-arid Climates together with the local organizers: J.J. Strossmayer University in Osijek : Faculty of Agriculture - Dept. of Plant Protection and Technology Development Center .

Topics covered:

- Invasive plants: biology and ecology
- Impact: agriculture, biodiversity, human health, environmental hygiene, environmental and economic aspect, regulatory framework
- Control measures: chemical control, biological control, mechanical control, control of invasive weeds in arid and semiarid environment, herbicide resistant (invasive) weeds
- Methods: standardization, quality control, statistics, techniques and information technology

See the website for general information on the conference and details on registration, accommodation. Information on the Symposium will be updated from time to time and will appear regularly on the Symposium web site: **www://tera.hr/ewrs-osijek-2008**

Important dates and deadlines:

June 30 2008 - deadline for early registration fee

Moreover, invasive species in Europe - common ragweed (Ambrosia artemisiifolia) represents a big problem and special attention will be paid to this noxious weed. Fundamental as well as applied aspects of ragweed research topics are very much welcomed.

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President's Report... Philippa Stevens

NEW ZEALAND ACCESS TO NEW PESTICIDE INNOVATIONS – NEW ZEALAND PLANT PROTECTION SOCIETY ISSUES PAPER SENT TO THE MINISTER FOR THE ENVIRONMENT

Following on from discussions during last years symposium 'Crop protection challenges for the future' and discussions at the Annual General Meeting, the executive developed an 'issues' paper called 'New Zealand needs access to new pesticide innovations' to send to the Minister for the Environment (with copies to the Minister for Agriculture, Forestry, Biosecurity, Food Safety, the CEO of ERMA and the Director-General of MAF).

The issues paper and the response from the Minister for the Environment are summarised here.

Summary of Issues Paper

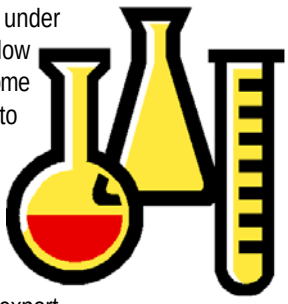
This paper outlined a range of concerns specifically relating to New Zealand's future access as a country to both generic and new generation pesticides. Lack of access to new generation and generic pesticides will undermine the global competitiveness of New Zealand's primary sector, and will also undermine the sector's ability to modify pesticide use to reduce negative environmental and social impacts of production. New generation pesticides are those newer products comprising new active ingredients or formulations that are increasingly "reduced hazard". New generation pesticides are generally protected by patents or trade secrets, and are the result of a substantial investment by the R&D-based agrichemical company responsible for development. Generic pesticides are those older products that are no longer protected by patent. They are generally available to the market for a lower cost than the new generation products but include many products that are considered to be more hazardous. New Zealand primary industries need access to both these types of pesticides to remain competitive over time.

Some major factors impacting on access to pesticides in New Zealand include:

- Global consolidation of R&D based-agrichemical companies
- Changing acceptability of residues for currently used pesticides in export markets
- Reassessment of currently used pesticides by regulators in New Zealand
- Commercial issues relating to registration of pesticides in New Zealand

Global consolidation of R&D based-agrichemical companies:
With the trend for consolidation of the major R&D based-agrichemical companies responsible for developing new generation pesticides, there has also been a reduction in New Zealand based resources. This is partly driven by the reality that New Zealand does not grow significant areas of the main global crops targeted by R&D based agrichemical companies (e.g. maize, soybeans, cotton, rice, sugarcane, oilseed rape). In the past, we have been fortunate that employees of the major R&D based-agrichemical companies based in New Zealand have been able to ensure that our primary sectors do gain access to new pesticide developments. However, this will become increasingly difficult as the focus becomes one-step removed from New Zealand.

Changing acceptability of residues for currently used pesticides in export markets: Internationally, we face increasingly challenging restrictions on pesticide residues that are acceptable to countries where our produce is exported. Maximum Residue Levels (MRLs) are science based and are set internationally by CODEX or by individual governments. However, the implementation of more stringent 'Private Standards' by significant supermarket chains in Europe and the UK has meant that in some cases New Zealand industries must produce fruit/vegetables that do not have detectable residues of some pesticides even where MRL's are set. Many of the pesticides banned under these private standards are the older, low cost generic products. This means that some currently used pesticides will not be able to be used, and therefore alternative products or approaches will be needed to control the major pests and diseases. In particular, this emphasises the need for access to the new generation reduced hazard pesticides that are acceptable to export markets.



Reassessment of currently used pesticides by regulators in New Zealand: As allowed for under Section 62 and 63 of the HSNO Act, ERMA is currently initiating a reassessment of a number of pesticides currently used in New Zealand. Re-assessments of all organophosphates and carbamates, many of which are generic products, are planned over the next five years. As a result of that reconsideration the decision-making Authority of ERMA may decide to change the conditions placed on the approval, or in extreme cases withdraw the approval altogether. Withdrawal of certain broad-spectrum insecticides will present a major challenge to producers and exporters, and raise the likelihood of failure to manage pests unless replacement products and/or tactics are available.

Commercial issues relating to registration of pesticides in New Zealand: The effect of the New Zealand regulatory regime (which offers data protection for 5 years only), and the very small market size (0.005% of world pesticide sales) is to limit agrichemical innovation and product development in New Zealand. A key point to be aware of is that the registration of new generation agrichemicals in New Zealand requires significantly more information than is required to register a generic product. While this information is clearly essential to properly assess the risk of new generation products, the limited data protection period means that it is extremely difficult for any agrichemical company to recoup this investment within the 5 year data protection time frame, after which time other companies can readily register generic products for a fraction of the investment. This is creating a further commercial disincentive for R&D based agrichemical companies to register new products in New Zealand. There is a similar issue relating to the reassessment of older generic products. Companies selling generic products have an opportunity to ensure that a product is available for continued sale following reassessment, by providing sufficient data for the reassessment process. However, there is essentially no data protection within the reassessment process, so there is no commercial incentive for one of several companies marketing the same generic product to provide confidential information to support their product. There are also specific commercial issues relating to pesticide access for use in minor crops. Off label usage of agricultural chemicals is allowed in New Zealand provided the default food residue standard of 0.1ppm is not exceeded. However, such usage cannot be recommended or promoted by the proprietor of the agrichemical. It is in the interests of growers, consultants, consumers and proprietors for product labels to be expanded to cover usage on additional crops, with appropriate MRL's established where necessary. This increases the product options available to growers, minimises the risk of any adverse effects from the use of incorrect rates, and reduces the risk of crop residues exceeding the low default threshold. For a new label claim to be approved, the proprietor must demonstrate efficacy and generate a significant amount of crop residue data (which must be analysed to GLP standard). Unfortunately, because no data protection is given to

new label claims, companies marketing generic products can copy any new recommendations immediately for the minimal cost of an application to ACVM. This is a clear disincentive to gaining registration on additional crops, particularly those of a minor nature.

We believe that it is **critical** that steps are taken to ensure that New Zealand primary sectors retain access to both new generation and generic pesticides. While there is little that we can do in the face of international trends, it is possible to ensure that the commercial environment within New Zealand does not cause further disincentives for agrichemical companies in the face of the other pressures.

We therefore recommend that serious consideration be given to reviewing the nature of data protection available for pesticide registrations, **especially the period of data protection for new generation products and the data protection for reassessments of generic products**, to ensure New Zealand primary industries retain their ability to compete in the international market.

Summary of response from the Hon Trevor Mallard, Minister for the Environment

Mr Mallard indicated that the paper usefully highlights the tensions between: 1) older, cheaper but more hazardous products and new, less hazardous but more expensive products, and 2) the need for adequate scrutiny of risks and the compliance costs of that scrutiny acting as a barrier to innovation.

In response to the proposal that "*serious consideration to reviewing the nature of data protection available for pesticide regulations, especially the period of data protection for new generation products and the data protection for reassessments of generic product"* he pointed out that the period of data protection in the HSNO Act depends on provisions in the Agricultural Compounds & Veterinary Medicines (ACVM) Act 1997 and the Medicines Act 1981 for innovative agricultural compounds and innovative medicines, respectively. He pointed out that it was important to ensure no inconsistencies develop between data protection for agricultural compounds and for medicines, as the same substance may be used in both circumstances. He noted that a government interdepartmental committee is now investigating issues around data protection, however at this stage it is too early to state when the report of the committee's work will be received.

In addition, he pointed out that the HSNO Act has already been amended to allow for personalised approvals where a hazardous substance or new organism is the subject of an innovative agricultural compound or medicine application. Additionally the criteria for rapid assessment of hazardous substances have been expanded to include where a new formulation has a lesser degree of hazard compared with that originally approved. He also noted that experience with reassessments to date (e.g. 1080 and hydrogen cyanamide) has shown that while some controls have been tightened, reassessed substances have remained available. He also pointed out that it is particularly important that data on adverse effects is made available, and noted that the European Union is moving to require companies to share test data on the potential hazardous properties of chemicals under its new system for the Registration, Evaluation and Authorisation of Chemicals (REACH).

I very much look forward to seeing the report from the governmental interdepartmental committee on data protection.

Philippa Stevens

Pesticide Resistance Management - Update -

There have been increasing levels of activity since the reinvigoration of the resistance committee and task groups.

The insecticide task group chairman Dr Nicholas Martin has contacted the previous authors of insecticide and miticide resistance management strategies who have agreed to be members of the task group. A preliminary assessment of the IRAC Mode of Action Groups has been undertaken and in May the discussion document will be circulated to the members of the Task Group about the Mode of Action classification and the process of updating the pesticide tables on the NZPPS web page.

The herbicide task group has been very active. Their work lead by Dr Kerry Harrington has focused on deciding what lettering system to use for the labelling of herbicides to enable users to easily identify and understand chemical groups. A lettering system used in Australia has been adopted in New Zealand by some arable farming groups such as the Foundation for Arable Research (FAR). However this system has some failings that do not make it completely suitable for the New Zealand environment. One area is that many of the herbicides that can be used to control triazine-resistant weeds are identified with the same letter as the triazines themselves. The consensus is that International HRAC (Herbicide Resistant Action Committee) system be adopted as the basis of the MOA system in New Zealand which gives these alternative herbicides a different identifier to the triazines. But as is often necessary with International systems there is a need to modify for local knowledge and situations. In this case the group are looking at splitting up the grouping which presently has the phenoxy herbicides coded with the same letter as the pyridine herbicides. Differentiating these will show that herbicides such as clopyralid can be used to kill phenoxy resistant weeds. Arrangements have also now been made with the editor of the "NZ Novachem Agrichemical Manual" to update the material on herbicide resistance management within this manual.

The fungicide group have been discussing the priorities for the year. One outcome is that a revised CAA strategy has been completed and submitted for publication in the 2008 Journal as well as being posted on the website. This is only the first of many strategies that will be revised.

Pesticide Resistance Management is an area we all can contribute to, particularly in ensuring that the strategies are followed. If you would like to join and participate in any of the Task groups please contact the coordinators

- Fungicides- Grant Haggerty BASF
- Insecticides- Dr Nicholas Martin Crop & Food Research
- Herbicides- Dr Kerry Harrington. Massey University

A word from Colin Little...

Dr Colin Little joined the Society at its inception in 1948 as a young scientist with the Department of Agriculture in Auckland. After being involved in the local industry for a few years he left New Zealand in 1957 to study for a D. Phil. from Oxford University. Upon completion of his study he joined the International Atomic Energy Agency spending the majority of his time based in Burma.

Colin is a regular contributor to the The Orchardist magazine summarising findings of the NZPP journal for NZ fruitgrowers. Colin lives in Auckland and at the impressive age of 94 is proud to be a long-standing member of the society and continue to keep pace with Society activities.

Weeds

In the Chicago Museum of Art is a painting by Millet titled "The Man With A Hoe". It shows an arable field on which the man stands leaning wearily on a short handled hoe. What makes the picture so poignant is his look of brutalised despair at the endless monotonous toil from which he is taking a brief respite. The picture is not well known because there is little pleasure in looking at it. Yet about a hundred years ago it aroused some outrage at the cruel manual toil to which some humans have to submit in order to earn a pittance of a living. The picture and an angry poem about it are featured in a publication by Arthur Mee called The Children's Encyclopaedia – an educational and entertaining work.

Brutalised manual labour against weeds in this country was still prevalent during the depression. Then, an unemployed man could only earn enough for basic subsistence by cutting and grubbing gorse. The pay was four pounds an acre – removing gorse prickles from fingers being the only entertainment at night!

The war had to come and go. Soon after came the trickle of technological advances. In the '50s the helicopter and 2,4,5 T arrived. A pilot, well paid and fed, sitting in relative comfort, could in a few minutes spray and kill a hectare of gorse that would have taken weeks for a labourer. The scythe, slasher and grubber became antiques. But not everywhere. In Romania in the early '70s a crude heavy hoe called the sapa was still in use by teams of labourers to weed large areas of crops.

Weeds being the main problem for agriculture, with the arrival of technology it was logical that a Weed Control Society was needed.

In NZ the first arrival of herbicides was probably in the Far North about 1936 when an unscrupulous and enterprising young man conned gullible people into buying sacks of "guaranteed gorse killer". My employer bought one. It was soon revealed as just common salt. A sackful might have killed some plants!

It was not until a great day in 1950 when a mysterious drum from ICI NZ arrived in Hamilton. The claim on its label was that a couple of pounds sprayed over an acre of pasture would kill all the broad-leafed weeds. With George Banfield, Head of the Dept. of Agriculture, we opened the drum and looked in awe at the white powder inside. Could sodium (2,4-dichlorophenoxy) acetate, "Frenocone", in a few handfuls do all that? Could this be the end of all the buttercups infesting the Hauraki Plains pasture? A sort of magic wand? How to spread it? What were the hazards, if any?

Ingenious farmers like Max Burrill of Auckland soon had pasture weed killing sprayers going. New and better herbicides arrived. And insecticides, fungicides, etc. have poured in since. So a modern agricultural chemical manual is quite hard to lift.

The scientific research to measure the potential of these new products needed the formation of the Plant Protection Society to publish the results, including weed control studies.

Modern technology has made the man with the hoe an unpleasant relic of the past. So it is ironical that we now have some people who stridently condemn the chemicals that have achieved this as dangerous and should be prohibited! But herbicides are still needed for the efficient-control of weeds.

Weeds are so-called because of their competitive vigour. Some research to exploit this might be worthwhile.

Symposium 2007 Proceedings

Many of you will be wondering when you will be receiving copies of the **'Future Challenges in Crop Protection: Repositioning New Zealand's primary industries for the future'** Symposium proceedings.

There was a delay in receiving all papers but we are happy to say that the proceedings are finally with Sue Zydenbos for editing and printed copies will be sent to those who attended the symposium in June. Extra copies will be printed and these will be advertised to members as soon as they are available.

Obituary for Bill Leonard

Bill Leonard was a Past President of our Society and also a Life Member. He will be sadly missed by many members who knew and worked with him.

The following obituary is written by Felix O'Sullivan, an Agcarm life member for the Agcarm March newsletter.

Farewell Bill Leonard William Francis (Bill) Leonard, Agricultural Scientist, Born. Temuka, 1 February 1926. Married 1951 Mavis Jemmett 1Daughter 3Sons; Died Lower Hutt 25 January 2008, Aged 81. Bill Leonard was an agricultural scientist for the whole of his working life, and whose name will always be associated, among other leadership roles, with the development of minimum tillage.

Early in his life he contracted polio, which left him with weak muscles on his right side, particularly his arm and shoulder. Despite his handicap he engaged in a wide range of sports, tennis, squash and later golf. However, in choosing a career he opted for science over his first preference of farming. Consequently, following secondary schooling at Temuka District High School, where he was awarded Dux, he attended Lincoln University achieving a Bachelor of Science Degree in 1948.

Bill joined the Department of Agriculture in 1949, serving in Blenheim and Canterbury in a research capacity. He was noted for his work on the control of weeds and insect pests and is credited with many published scientific papers in those areas. His most noteworthy achievement, while with the department, was in the control of Nassella tussock, a major problem in Canterbury and the northern South Island. Control was achieved by a technique involving chemical spraying with 2,2 DPA, so avoiding laborious and costly regular grubbing and resowing of pasture.

In 1965, following working on joint field trials with ICI New Zealand personnel, investigating techniques and potential of "minimum tillage", the direct drilling of seed into sprayed pasture or cropping fields, Bill Leonard was persuaded to join ICI Agricultural division's research and development wing. To extend this work to cover all conditions and requirements throughout the country, Bill established three area field research teams. The work focused on different soil types, climatic conditions, assorted crops and grasses, and working with manufacturers to develop machinery.

Another project to fall within the ambit of his department was the further development of the bipyridyl herbicides in the control of weeds in water-ways and lakes such as lake Rotoiti, and technical advice to New Zealand Railways on stabilizing its tracks and reducing fire hazards on adjacent land.

Bill was also able to claim responsibility for instigating the first trials to determine the effectiveness of gorse control by helicopter spraying, a technique now well established.

In the field of animal health products Bill led his department's veterinary team in the development of one of the first broad spectrum anthelmintics, levamisole, for the control of internal parasites in sheep and cattle.

The regard in which Bill Leonard was held by associates in government departments and industry is reflected in the number of bodies he was appointed to, or worked with, during his career.

He represented both Agcarm and the New Zealand Chemical Industry Council (NZCIC), providing much technical advice to both, and represented them on legislative committees on which consideration of the Hazardous Substances and New Organisms Bill (HSNO) was a major task. He was co-author of the report of the Inter-Agency Co-ordinating Committee on the control of Hazardous Substances on which the subsequent legislation was based.

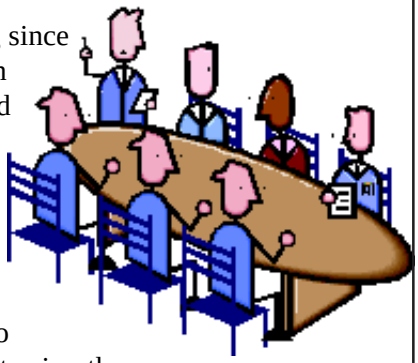
Later, between 1988 and 1998, he established an environmental consultancy, and his advice was sought by a large number of companies and organisations. As such, he also served as a member of the technical task group of the Ministry for the Environment regarding the management of pesticides, and in the field of Animal Health was on a panel to develop criteria for the registration of animal remedies.

In addition to being technical editor of the New Zealand Agrichemical manual he was co-author of Agcarm's accreditation manual for distributors of the industry's products.

Bill Leonard was a member of the Royal Society of New Zealand, a Foundation Member of New Zealand Institute of Agricultural Science and a past President of the New Zealand Weed and Pest Control Society.

His final accolade, perhaps a little belated, was in 1997 when the New Zealand Institute of Agricultural Science and the Australian Institute of Agricultural Science and Technology bestowed on him their "Leading Professional Scientist Award".

Committee News



There has been one committee meeting since our last report. We continue to work on various projects and activities mentioned in previous newsletters. Below are the most recent developments involving the NZPPS executive committee.

CAWS Conference 2010

A sub-committee containing at least two members of NZPPS committee and up to six other members will be set up to organise and run the 17th 2010 CAWS conference in Christchurch.

Renaming of Inexperienced Speaker Award

The committee decided that this award needed a more fitting name. It will now be called the 'Emerging Presenter Award'.

From the Editor... Sue Zydenbos

The number of paper abstracts received this February (95) was the highest since 2002, so please be understanding if I seemed somewhat stressed during the April/May period! Included in that total are some of the papers for the pre-conference Biosecurity Symposium, which will be refereed and edited as normal NZPP papers.

With this particularly challenging schedule ahead, I will really appreciate those authors who follow the guidelines properly. Please remember to accept ALL Track Changes and remove your internal editing comments before you submit your initial and final versions of the manuscript. This does NOT mean just hiding them on the screen – they will still appear in the printed version and don't look good! It is a lot of work to remove these Changes. Also, please use very basic formatting in your manuscripts. For example, capitalisation styles fall apart when taken from Word into the Printer's software and end up being a strange mixture of upper and lower case letters. Please just use the shift key to put in capital letters! Also keep the same margins throughout the paper – don't try to make it look like a NZPP journal – the Printer does that for us!

People are still misunderstanding the instructions for submission of poster abstracts. The only requirement I have is that a final version of the abstract is sent to me by 15 May. I do not need prior notification in February. I will check the abstracts and will send out a response by the end of May, indicating that it has been accepted and sent to the Printer. At that stage I may ask for minor clarifications or corrections to be checked. Please do this promptly. Note that the 240 word limit **includes** the title, authors and addresses.

The draft programme for the conference will be posted on the website about 15 June. Also, please notify me if you think you qualify for the "Emerging Presenter" (previously "Inexperienced Speaker") award. This will be announced at the end of the last session of the conference so make your travel plans accordingly.

Please read the instructions for presenters on the website. Take some time to prepare properly for your talk at the conference by practising in front of your peers. You are not expected to present all of your data and it is perfectly acceptable to refer to the full paper during your talk. You may include additional background information that would be of general interest to the wider audience. I encourage you to use a different (abbreviated) title for your oral presentation than is published in the full paper, as these are actually separate outputs. Please bring your *PowerPoint* presentation to the conference and give it to Trevor James well before your session – do not email it to me beforehand.

I am looking forward to attending the conference this year (hopefully it will be warmer than Canterbury at that time!). I particularly enjoy meeting the new members, so please come up and introduce yourself to me!

New Zealand Plant Protection Medal Nominations

Nominations for the New Zealand Plant Protection medal **close on 1 July each year**. If you would like to honour someone who has made an exceptional contribution to plant protection in the widest sense, consider nominating them for this medal. The medal is awarded for outstanding services to plant protection, whether through research, education, implementation or leadership.

Criteria:

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

Nominations for the New Zealand Plant Protection Medal will be evaluated on a case-by-case basis by the President, Past-President and one other Executive Committee member of the New Zealand Plant Protection Society. The medal may not be awarded if no suitable nominations are received. The medal will be presented at the annual conference in August.

Please spend time on your nomination as a quality nomination provides the judges with better information to make this important decision!

Nomination forms can be downloaded from the website, www.nzpps.org. Please send nominations to the Secretary, New Zealand Plant Protection Society, PO Box 8363, Havelock North, NZ.

New tropical weeds on the loose in New Zealand

Ian Popay, DOC, Hamilton

For some time now, New Zealand's potting mix makers have been replacing peat (not sustainable) with coco-peat, made from coconut fibre or coir, a waste product of the coconut industry in tropical counties. Our coco-peat comes mainly from Sri Lanka.

Unfortunately, some batches of coco-peat contained the seeds of tropical weeds, and these have now been distributed to nurseries in several parts of the country. Some of these nurseries have, very responsibly, been reporting occurrences of these new weeds to MAF Biosecurity.

This summer has been particularly long and hot, and this may have encouraged the germination and survival of these weeds. Our experts don't believe these new species present a serious threat to either agriculture or the environment, although some may become problems in nurseries and gardens. However, long experience also warns us that the behaviour of any new weed is difficult to predict.

If you come across any strange new weeds at home – especially during the summer - we suggest you pull or dig them up and either burn them or bury them at least a metre deep in places where the soil isn't likely to be disturbed for several years. If you notice them in a nursery or garden centre, alert the manager and suggest he or she treats them similarly.

You can find pictures and fact sheets about al of these new weeds on the MAFBNZ website at http://www.biosecurity.govt.nz/regs/imports/plants/coco-peat.

International year of the potato!!

Here's what's happening on the IYP calendar of events for 2008...

June: The Role of Potatoes in Addressing World Hunger
An initiative focussing on United Nations messages related to the role of potatoes in addressing world hunger.

July: Best Chip Shop Competition
The highly successful Best Chip Shop Competition will be announced and will run August - September.

August: International Speakers Tour
Get the real story on potatoes and nutrition! Visiting main centres around New Zealand in association with Crop & Food.

September: 'Potato Favourites' Book Launch
Launch of new Allyson Gofton's new cookbook Potato Favourites with lots of easy potato recipes for families...

October: Restaurant Potato Meal Match Challenge
The challenge will seek to find and acknowledge fantastic potato meal matches in restaurants.

November: *Potatoes will feature in national 5+ A Day campaign to teach our children about potatoes.*

IYP Celebration Dinner 7 November

Put these events in your diary now. We will have a lot to celebrate. For more information visit:

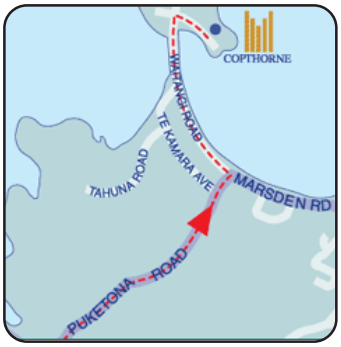
http://www.vegetables.co.nz/potatoes/index.php

http://www.crop.cri.nz/home/intl-year-potato/index.php

Plant Protection 61 Conference 2008

http://www.nzpps.org/conference.php

Conference



The 2008 conference is planned for Paihia on 11-14 August 2008. Venue is the Copthorne Hotel and Resort Bay of Islands. **Cost: $220**

More information on the venue and Paihia is available from www.millenniumhotels.co.nz/copthornebayofislands and www.paihia.co.nz.

In addition to the conference the Copthorne Hotel & Resort Bay of Islands is situated on the beach front, adjacent to the Waitangi National Trust and a scenic golf course. Local attractions include:

Bush and Scenic Walks; Game and Sports Fishing; Island Cruises

Pre-conference Symposium

A one day pre-conference symposium will be held on Monday 11 August 2008 on the topic **Surveillance for Biosecurity**. The aim is to bring biosecurity practitioners together to present research and case studies on the wide range of surveillance activities within the biosecurity sphere. The symposium will focus on response surveillance and actions and also include sessions on pre-border, post-border, and exotic pest management surveillance.

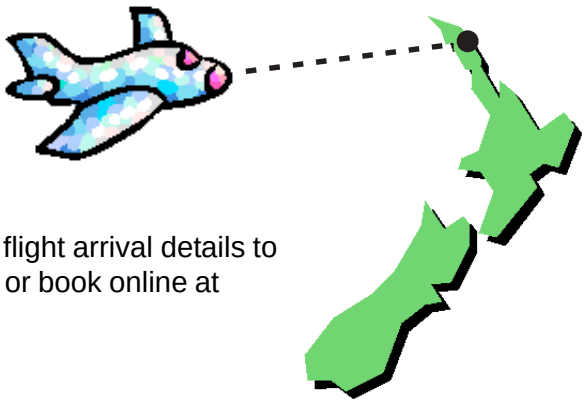
Further details, will be posted on the website as they become available. Volunteers to help organise the symposium can contact Karyn Froud or Ian Popay. **Cost: $120**

How to get to Paihia:

It is a while since we have visited this end of the country and a few people have been asking about flights. Rest assured that we have checked out flight times, availability and cost and all options are very reasonable.

BY AIR

There are two airports nearby, Whangarei, 1 hour drive from Paihia with an average of 9 flights per day from Auckland, and Kerikeri, 20 minutes from Paihia with 4 flights per day.



For those members flying into Kerikeri airport, it is approximately a 20min bus or taxi ride to the Copthorne. Kerikeri Shuttles will operate an airport shuttle to meet your flight and transfer you to the Copthorne if you pre-book with them.

To arrange this at a guaranteed best rate, please email your flight arrival details to info@kerikeritaxis.co.nz and quote the "NZPPS conference" or book online at http://www.kerikeritaxis.co.nz/contact.html

BY ROAD - SELF DRIVE

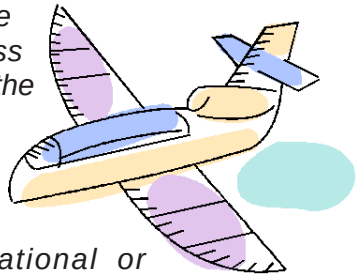
Travel the Twin Coast Discovery Highway, a world class touring route which leaves and returns from Auckland. Pick up your free copy of the Twin Coast Discovery Highway route-planner from any information centre in New Zealand.

Paihia is just three interesting hours drive from Auckland!

A registration form is now available on the website: www.nzpps.org

CAWS Awards available for NZPPS members

Travel Awards



These awards will be made available annually, or less frequently depending on the standard of the applications. Applications are invited from students and early career weed scientists to attend national or international conferences, or for specific overseas study tours of a short duration. The applications are to be submitted annually to CAWS by affiliated societies. The awards will be made by 1st July each year for the following 12 months.

CAWS Annual Student Travel Award

The Annual Student Travel Award will be made to undergraduate, Master, PhD or other postgraduate students, or those who have completed their studies in the previous twelve months at the date of application. An early career travel award is available for those who have completed their studies less recently (see below). Those studying in the fields of agriculture, botany, biology, ecology, horticulture and forestry or related subjects, with some focus on weed science are encouraged to apply.

The value of this award is $3,000 per annum General conditions also apply (see below).

CAWS Annual Early Career Weed Scientist Travel Award

The Annual Early Career Weed Scientist Travel Award will be made to early-career weed scientists who have, at the date of application, completed their last degree (undergraduate, Master, PhD or other postgraduate degree) within the last five years. Applicants will also have commenced employment in any branch of weed science.

The value of this award is $2,000 per annum. General conditions also apply.

General conditions and information on application

The Awards will be open to anyone residing in Australia or New Zealand, but members of Societies affiliated with CAWS may be given preference. The committee may at its discretion award more than one award for each category.

The awards are not expected to cover the total cost of the Conference or study tour being undertaken. It will therefore be necessary for an applicant to ensure that other funding is available. Applicants attending conferences will be expected to give a presentation (oral paper or poster) at the conference and to submit an abstract of their paper with their application.

On return the successful applicant will be expected to give a report to the nominating Society, either as a written report for the Newsletter or as part of a seminar, meeting or workshop conducted by that Society. It will be part of the successful applicants duty to pass on as much information as possible to the nominating Society and it is the right of the Society to specify the format of the report.

Applications are to be forwarded by 1st May each year to the Secretary/Treasurer of CAWS.

For 2007-2008, applications can be sent to:
Council of Australasian Weed Societies,
c/- Mr Dennis Gannaway
Department of Water Land & Biodiversity Conservation
GPO Box 2834
Adelaide SA 5001
AUSTRALIA
Email: gannaway.dennis@saugov.sa.gov.au
Telephone: 08 8303 9748, fax 08 8303 9555

Applications will normally be accepted until May 1st for consideration each year. This period may be extended at the discretion of the committee.

Application forms will be available from the Secretary of each Society or go online to http://home.vicnet.net.au/~weedss/caws%20young%20sci.doc.

CAWS Medal for Leadership

This Medal is a prestigious Award recognising outstanding contributions to weed management in Australasia.
For the purposes of the Medal, "an outstanding contribution to weed management in Australia" shall be:

- A contribution to the science, technology and practice of weed management through: research, teaching, administration, extension and implementation of programs
- Outstanding in that the contribution is recognised by peers to be exemplary in Substance, Objectives, Methods and Results.
- An impact on the work of others.
- Sustained over a long time, perhaps ten years or more.
- Substantial in that the contribution is broadly based across several categories listed above
- National in its impact. (It should be noted here that locally outstanding contributions may be recognised by Member Societies of CAWS.)

The Criteria for the Medal, reviewed in 2002, should be itemised in the Nomination and Assessment Forms to assist the focus of the Nominating Member Societies and the Awards Committee. Short nomination forms (http://home.vicnet.net.au/~weedss/caws%20short%20nom.doc) and full nomination forms (http://home.vicnet.net.au/~weedss/caws%20full%20nom.doc) are available online or from the CAWS Secretary:
gannaway.dennis@saugov.sa.gov.au

Progress updates from our 2008 Scholarship winners

Dan Watkins Scholarship in Weed Science

Awarded to: Chin Lui Foo from Massey University

The greening of urban areas serves many functions, not least of which is the visual improvement of the cityscape. Yet many factors come into play in the implementation of urban landscapes: public health, functionality, aesthetics, funding levels, and ease of maintenance all come to mind.

This year's Dan Watkins Scholarship has been awarded to Chin Lui Foo from Massey University, who is just starting a PhD programme under the supervision of Kerry Harrington, and will be studying how best to use groundcover plants in urban areas for controlling weeds in a safe, sustainable, and cost-effective way. A spectrum of plant forms with different groundcover characteristics will be scrutinised for their weed suppression abilities and ease of establishment.

Interestingly, Chin Lui will be looking at challenging conventional norms of weed identities by adopting a few current species of weeds such as turf speedwell and pearlwort for their ability to form uniform, sustainable ground covers around trees in lawns and suppress other "weeds". After all, once a species has been purposefully planted and is wanted, it can no longer be considered a weed. With all ground covers species assessed though, attention will be paid to how they can be contained where they are planted and not become troublesome.

As part of a holistic management program, herbicides which can control or selectively protect these species will be identified. Once establishment and control protocols are established, a study of the effectiveness of competitive mechanisms of these plants will be examined. A similar study will be run for conventional amenity groundcover species. Cultural aspects of groundcover plants will be recommended for a variety of urban scenarios, from extensive plots of land lying fallow in industrial areas to amenity tree-scapes and traffic islands or lane dividers along major roads.

At the end of the project, it is hoped that urban landscapes can be managed so that there are minimal weed problems in tandem with a reduced use of herbicide application. Most of all, an objective is that ground managers will have a wider range of choices in urban weed control, with consideration of cost, ease-of-use and aesthetics unique to the urban environment.

New Zealand Plant Protection Society Research Scholarship

Awarded to: Carolyn Bleach from Lincoln University

Decline of young grapevines has been reported world-wide, especially in vineyards replanted from grapevines or other fruit crops. Symptomatic vines often exhibit stunting, chlorosis, late bud break and sometimes death. When uprooted, many such vines are found to have a dry purplish-black rot within the trunk base, the characteristic symptom of Cylindrocarpon black foot disease.

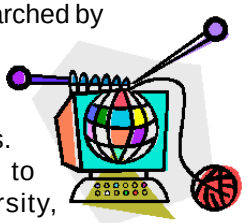
Since several species of Cylindrocarpon have been reported overseas as the causal agents of this disease, it was initially important to sample widely in New Zealand vineyards. Carolyn found the disease was widespread, with C. destructans, C. liriodendri and C. macrodidymum being fairly uniformly distributed through all grape-growing regions. She also found at least one novel Cylindrocarpon species, which has not yet been named by our overseas collaborators.

The main aims of this research programme are to investigate the potential of chemical, physical and biological treatments for reducing Cylindrocarpon infection levels in young nursery-grown grapevines. A range of treatments have been reported overseas to reduce vine infection when planted in soils infected with C. destructans but the treatments were not tested with C. liriodendri and C. macrodidymum. Our trials in two commercial nursery sites, which contained all three Cylindrocarpon species, tested pre-planting dips of three fungicides, a Trichoderma-based product and hot water treatment (HWT) of the dormant vines when lifted ready for sale.

The HWT was the most effective treatment in both sites. In the Auckland site, all fungicides reduced the overall levels of disease although the number of plant deaths was increased by these treatments. In Blenheim, there were similar trends as in Auckland for fungicide efficacy but higher rates of plant fatality reduced the significance of the results. Restricted water for irrigation in the Marlborough area and the hot summer may have contributed to the higher levels of plant deaths. Results also indicated that Trichoderma-treated plants showed a slight but insignificant increase in root weights in Auckland.

A further fungicide field trial incorporating the best of the previously-tested fungicides from field and in vitro experiments, as well as shorter dip times, has been planted at the Lincoln vineyard. Further experiments are being conducted on a range of HWT temperatures and times since vines grown in cool climates are known to be more easily damaged by standard HWT methods. Current experiments are also investigating a range of soil amendments to reduce inoculum levels in soil.

Plant-SyNZ database - your ideas?



The Plant-SyNZ database can be searched by plant or by herbivore name and produces reports that list the herbivores associated with a plant or the plants on which a herbivore lives. This information is of importance to people with interests in biodiversity, biosecurity, ecology and education. Some questions which have arisen since the database became live last year are:

Biostatus designation for migrants

Some insects such the Australian painted lady (*Cynthia kershawi* Mckoy 1868) and lesser wander (*Danaus chrysippus* Stoll 1790) (Lepidoptera: Nymphalidae) occasionally come to New Zealand, lay eggs which produce larvae, but the population does not establish. Should they be classified as adventive or native species? Should this depend upon the host plants they use, i.e. adventive insect if they only breed on adventive or cultivated plants. I note that in the classification of the biostatus of New Zealand organisms used by DoC, there is a term 'vagrant' for occasional visitors that do not take up permanent residence (Molloy et al 2002). Is this a more appropriate term to use for these butterflies and similar insects? These insects are often called migrants, but this usage does not fit with the definition used by (Molloy et al 2002).

What are host plants for the passion vine hopper (*Scolypopa australis* (Walker))

Some insects use different plants at different stages in there lifecycle. For many native Chrysomelidae only the plant on which the adult feeds is known and I have recorded these as host plants. The passion vine hopper seems to utilise many plants at different stages of its annual cycle. There are those plants used for egg laying, others by the early nymphal instars, and others by later nymphal instars and adults. It seems to me that where there are abundant insects of a particular stage on a plant this is a genuine host plant for that stage. Before I start putting this information into the database, I would be interested in any comments on how to deal with this kind of insect.

To see it in action - *http://www.crop.cri.nz/home/plant-synz/database/databasehome.php*

Please send your thoughts to Nicholas Martin martinn@crop.cri.nz, Crop & Food Research, Private Bag 92169, Auckland.

Start thinking about scholarship applications!

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

For more information and an application form for these scholarships please refer to the NZPPS website: www.nzpps.org.

Climate, robots to feature in Gold Coast idea-fest

Top scientists from Australia and New Zealand will provide a glimpse of the future at the National and Trans-Tasman Horticultural Science conference in July. Dubbed "Smart Science for Innovation in Horticultural Enterprises", the focus of the presentations, workshops and debate is on commercial outcomes.

The conference will address many of the global opportunities and challenges faced by the horticulture industry, including:

Climate change and environmental issues – Dr Mark Howden —Theme Leader - Adaptive Primary Industries and Enterprises, CSIRO, will speak on climate change impacts and adaptation from a horticulture perspective.

Labour issues - Professor John Billingsly (Mechatronics Engineering) University of Southern Queensland will speak on case studies demonstrating innovative mechatronic/ robotic technologies in horticultural systems.

Pest & Disease threats - Dr Max Suckling (Biosecurity), HortResearch, NZ.

Global issues such as these require global collaboration combined with good "home-grown" science and innovation. The conference is supporting this by being jointly hosted by the Australian Society of Horticultural Science and New Zealand Institute of Agricultural and Horticultural Science.

This Trans Tasman collaboration extends around the world as the two groups prepare to host the International Horticulture Congress (IHC) in Brisbane in 2014. This provides exciting professional and commercial opportunities to be gained over the next six years. IHC2014 president Dr Rod Drew will be outlining these at the conference. With the next IHC in Lisbon only two years away, researchers and industry will also be encouraged to factor this into their planning.

"Smart Science for Innovative Horticultural Enterprises" will be held at the Gold Coast International Hotel, Gold Coast, Queensland, Australia on 21-23 July 2008. http://www.aushs.org.au

New Zealand Plant Protection Society

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