

New Zealand Plant Protection Society (Inc)



CONFERENCE PROGRAMME

61st Annual Conference

12-14 August 2008

Preceded by:

‘Surveillance for Biosecurity’ Symposium

11 August 2008

Copthorne Hotel & Resort Bay of Islands,
Tau Henare Drive, Paihia

Full and daily registrations
Student rates available

www.nzpps.org

'Surveillance for Biosecurity' Symposium

Monday, 11 August 2008

8.15am-9.00am	Registration
9.00am-9.10am	Conference Opening Ms Philippa Stevens, NZPPS President
9.10am-9.30am	Opening Address Dr John Hellstrom, Biosecurity Council Chair Author of 'The Biosecurity Strategy for New Zealand'

9.30am-11.35am	Border Surveillance
Chair:	Dr Anis Rahman, AgResearch
Convenor:	Ms Lisa Jamieson, HortResearch

Invited Paper: Border surveillance - Lottery or investment?

Craig Phillips, Science Leader, B3 - Better Border Biosecurity, AgResearch, J.M. Kean and M.R. McNeill

Submitted Papers

Tourist flows, lagged arrivals and environmental consonance as factors in biological exchange in Aotearoa New Zealand

P. Forer, M.R. McNeill and C.B. Phillips

Challenges in tracking a well known bacterium: *Erwinia amylovora* the fire blight pathogen: a paper

J.L. Vanneste

Exotic mosquitoes – post-border surveillance

M. Disbury, R. Cane and M. Singe

10:30-10:50am MORNING TEA

Pineapple leaves and coconut fibre - recent cases of preventive biosecurity

A.I. Popay, T.K. James and M.S. Bullians

Can we predict invasive threats to New Zealand natural ecosystems by focusing our efforts overseas?

L.L. Fagan

Contaminants of upholstered furniture from China and Malaysia

K.J. Froud, G. Thompson, H.G. Pearson and B. McCarthy

11.35am-2.00pm	Post-Border Surveillance
Chair:	Mr Trevor James, AgResearch
Convenors:	Ms Lisa Jamieson, HortResearch (11.35am-12.35pm) Dr Toni Withers, Scion (1.15pm-2.00pm)

Invited Paper: What does the future hold for surveillance?

Katherine Clift, Surveillance Group Manager, Post Border Directorate, MAF Biosecurity NZ

Submitted Papers

Unwanted in New Zealand: diseases and pests of crops

N.A. Martin, P. Wright and J. Fletcher

Investigating suspect new diseases as part of the New Zealand biosecurity surveillance and response system: an investigation into top dieback in Norfolk Island pine

M.S. Bullians, C. Inglis, C.F. Hill, S. Ganey, M. Braithwaite, W. Ho, M. Dick, E. Orton and G.S.C. Gill

Passive surveillance of exotic pests and diseases of plants, animals and the environment in New Zealand

K.J. Froud, T.M. Oliver, A.R. Flynn, P.C. Bingham and N.J. Rowsell

12.35pm-1.15pm LUNCH

Light trapping of noctuid moths as a surveillance tool for biosecurity

D.E. Hartnett, G.P. Walker, S. Winkler, P.J. Cameron and M.G. Hill

An analysis of wind pattern to predict aerial dispersal of organisms from Australia and South Pacific Islands to New Zealand

K.S. Kim

High Risk Site Surveillance (HRSS) - an example of best practice plant pest surveillance

P.M. Stevens

2.00pm-3.30pm	Response Surveillance and Actions
Chair:	Ms Karyn Froud, Biosecurity NZ
Convenor:	Dr Toni Withers, Scion

Invited Paper: The diagnostic challenges of response surveillance
Hugh Davies, Director, Investigation and Diagnostic Centres, MAF Biosecurity NZ

Submitted Papers

Characterising science input to investigating incursions of exotic organisms into New Zealand
G.M. Burnip

Managing the risk of invasive exotic ants establishing in New Zealand
T.T. Ashcroft, D. Nendick, S. M. O'Connor, M. Sarty and G. Weston

Handheld computer technology, a vital link in New Zealand Exotic Ant Programmes
L.T.W. Mattson

Australian subterranean termites (*Coptotermes acinaciformis*) in New Zealand
H.G. Pearson and S.J. Bennett

The Victorian Weed Alert Program: Weed Spotters an integral surveillance tool
N. Smith and C. McInerney

3.30pm-3.55pm **AFTERNOON TEA**

3.55pm-5.40pm	Invasive Exotic Pest Management
Chair:	Dr Ian Popay, Department of Conservation
Convenor:	Dr Sue Zydenbos, NZPPS Editor

Invited Paper: Surveillance is all about harnessing the nosey neighbour syndrome
Bob Cathcart, Land Operations Manager, Northland Regional Council

Submitted Papers

Benefits and risks of identifying the “worst pests” in black lists
S.J. Owen and I. Popay

Department of Conservation weed surveillance system to protect biodiversity – we can’t do everything everywhere, so we have to make the best use of what we have
H. Braithwaite

Getting to grips with GRTS (Generalized random tessellation sampling) (*weeds paper*)
R. Milne

Designing surveillance programmes for freshwater weeds
P. Champion

The problem with ants: Biosecurity against exotic ant species and a case example of Argentine ant
G. Browne, V. Van Dyk, P. Craddock and B. Rawnsley

Surveillance for weed biological control
N. Waipara, H. Harman et. al.

5.40pm-6.00pm	Symposium Closing remarks:
	Dr Stephen Goldson, Chief Scientist, AgResearch
Chair:	Ms Philippa Stevens, NZPPS President

6.00pm-7.30pm	Wine and Nibbles
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7.00pm	How they ‘respond’ in the US – a high impact pest tour of the United States
	<i>Karyn Froud and Amelia Pascoe</i>

Symposium kindly sponsored by:



61ST NZPPS ANNUAL CONFERENCE

Tuesday, 12 August 2008

8.00am–9.30am REGISTRATION/TEA & COFFEE

9.30am -10.00am Conference Opening
MR RICK CURTIS
NZ Citrus Growers Inc. Chair
Trustee of the Fruitgrowers Charitable Trust

10.00am-12.00pm	From Biosecurity to Biocontrol
Chair:	Dr Stephen Goldson, AgResearch
Convenor:	Dr Toni Withers, Scion

Biological and ecological traits that assist establishment of alien invasive insects
L. Peacock and S.P. Worner

The biocontrol information resource for ERMA New Zealand applicants (BIREA): an evaluation
T.D. White, J.M. Kean and B.I.P. Barratt

Developmental biology of *Meteorus pulchricornis* parasitising painted apple moth
A. Chhagan, A.E.A. Stephens and J.G. Charles

Establishment of *Thripobius javae* (= *semiluteus*) in New Zealand
L.E. Jamieson, K.J. Froud, R. Edwards and P.S. Stevens

Distribution of the clover root weevil biocontrol agent in the North Island of New Zealand
P.J. Gerard, T.M. Eden, D.J. Wilson and G. Burch

The effect of parasitism on clover root weevil flight capability
T.M. Eden, M. Donald and P.J. Gerard

Detection of *Armillaria* basidiospore dispersal
M.W.P. Power, T.D. Ramsfield and I.A. Hood

A comparison of populations of *Armillaria hinnulea* in New Zealand and Australia
T.D. Ramsfield, M.W.P. Power and G.S. Ridley

12.00pm-1.00pm LUNCH

1.00pm-2.45pm	Disease Control in Horticultural Crops
Chair:	Mr Henry Pak, Avocado Industry Council
Convenor:	Ms Philippa Stevens, HortResearch, NZPPS President

Arbuscular mycorrhiza improve apple rootstock growth in soil conducive to specific apple replant disease
H.J. Ridgway, J. Kandula and A. Stewart

Suppression of *Venturia inaequalis* (apple scab) ascospore production using autumn applied fungicides

P.N. Wood, R.M. Beresford and T.J. Taylor

Application of fungicides during leaf fall to control apple scab (*Venturia inaequalis*) in the following season

R.M. Beresford, P.N. Wood, P.W. Shaw and T.J. Taylor

Field testing alternatives to copper for controlling avocado fruit rots

K.R. Everett, O.E. Timudo-Torrevilla, G.N. Hill and T.E. Dawson

Nutrient nitrogen management for disease control in strawberry

M. Walter, B. Braithwaite, B.J. Smith and G.I. Langford

Isolation of copper and streptomycin resistant phytopathogenic *Pseudomonas syringae* from lakes and rivers in the central North Island of New Zealand

J.L. Vanneste, D.A. Cornish, J. Yu, R.J. Boyd and C.E. Morris

Control of *Phytophthora cinnamomi* in *Erica sessiliflora* and *Erica davisii*

S.G. Casonato, M.A. Manning, P.A. Rheinländer and R.A. Fullerton

2.45pm-3.15pm AFTERNOON TEA

3.15pm–5.00pm Weeds in Grasslands

Chair: Mr Jack Crow, Auckland Regional Council

Convenor: Dr Ian Popay, Department of Conservation

Assessing risk of the natural regeneration of introduced conifers, or wilding spread

N.J. Ledgard

Vegetation successions over 30 years of high country grassland invasion by *Pinus contorta*

N.J. Ledgard and T.S.H. Paul

Effect of felled wilding pines on plant growth in high country grasslands

T.S.H. Paul and N.J. Ledgard

Estimating the fate of seeds in a *Nassella trichotoma* population

C.S. Lusk, S. Lamoureaux, G.A. Hurrell and G.W. Bourdôt

Weed cover unaffected after converting a dairy farm to organic production

K.C. Harrington, M.A. Osborne and P.D. Kemp

Botanical and management factors associated with *Setaria pumila* abundance: implications for pasture management

K.N. Tozer, T.K. James and C.A. Cameron

Ragwort and nodding thistle control with novel 2,4-D mixtures

T.K. James and A. Rahman

5.00pm-5.30pm	Poster Introductions
Introductions:	Ms Philippa Stevens, HortResearch, NZPPS President
Convenor:	Dr Sue Zydenbos, NZPPS Editor

5.30pm	Poster Session
	Wine and Cheese Evening

The problem with grubby footwear at international borders: a New Zealand case study of golfers

T.D. White, T.A. Payne, M.R. McNeill and D.T. Bewsell

Testing the effectiveness of disinfectant protocols for soiled footwear

S.D. Young, M.R. McNeill and D.J. Saville

Evaluation of treatment methods for eradication of plant pathogens from carrot seed

L-H. Cheah and S. Olsson

Database tools for risk analysis of fungal plant pathogen incursions into New Zealand

K.R. Everett, I.P.S. Pushparajah, S.L.H. Viljanen-Rollinson and M.V. Marroni

Eretmocerus warrae: a new whitefly parasitoid found in New Zealand

P.J. Workman, I.A.W. Scott and G.M. Drayton

A new lure for *Thrips major*

D.A.J. Teulon, M-C. Nielsen, W.J. de Kogel, R.W.H.M. van Tol and M.M. Davidson

New attractants for *Vespula vulgaris* from honeydew

N.J. White, A.R. Gibb, L.D. Stringer, L.M. Manning, C.R. Unelius, K.C. Park, D.M. Suckling and A.M. El-Sayed

Sex pheromone of the pink grass worm, *Tmetolophota atristriga* (Walker)

V.J. Mitchell, L.M. Manning and A.M. El-Sayed

Australian black beetle expansion through Christchurch city highlights a risk to pastoral agriculture on the Canterbury Plains

R.J. Townsend, M.R. McNeill and T.A. Jackson

Biocontrol – a possible option to control manuka beetle (*Pyronota* spp.) causing pasture damage on dairy farms on the West Coast

R.J. Townsend and T.A. Jackson

Pupation depth of *Microctonus* spp.

C.M. Ferguson, C.B. Phillips, D.M. Barton, M.R. McNeill, H.I. Townsend and H.D. Vattala

Influence of male density on reproductive fitness of female rice weevil, *Sitophilus oryzae* L. (Coleoptera: Curculionidae)

C. Flay and Q. Wang

Survival of *Neonectria fuckeliana* in woody material

A.J.M. Hopkins, M.A. Dick and I.G. Simpson

Host variation in *Pinus radiata* in response to inoculation with *Neonectria fuckeliana*
M.A. Dick, A.J.M. Hopkins and M.W.P. Power

The fate of ectomycorrhizal fungi associated with *Pinus radiata* seedlings in the nursery
K. Walbert, T.D. Ramsfield, M.A. Dick, E.E. Jones and H.J. Ridgway

New host association for *Sirex noctilio* and *Amylostereum areolatum* on *Cedrus atlantica*
G.M. Burnip, I.C. Harvey, D. Voice and M. Braithwaite

Distribution of *Botryosphaeria* species causing grapevine dieback and decline in New Zealand vineyards
J. Baskarathavan, M.V. Jaspers, E.E. Jones and H.J. Ridgway

Phytotoxicity of phosphorus acid in *Leucodendron* ‘Safari Goldstrike’
S.G. Casonato, M.A. Manning, P.A. Rheinländer and R.A. Fullerton

Optimum timing of fungicides for control of onion white rot (*Sclerotium cepivorum*)
J.L. Tyson, R.A. Fullerton, R.W. Chynoweth, P.A. Rheinländer and G.N. Hill

Vine death of Hort16A in Chile caused by *Verticillium albo-atrum*
R.A. Fullerton, J. Auger, I. Pérez Rodríguez, M.A. Manning, R.A. Martin and F. Duboy

Genetic variation among *Glomerella cingulata* isolates from different lauraceae hosts
R.W.A. Scheper, O.E. Timudo-Torrevilla, J. Rees-George and K.R. Everett

Effect of postharvest dips on apple surface microflora and *Dasineura mali* removal
R.W.A. Scheper and D.J. Rogers

Herbicide deposition on weeds from weed wipers
C. Moyo, K.C. Harrington, P.D. Kemp and J.P.J. Eerens

FluorPEN: a simple hand held chlorophyll fluorescence measuring instrument
J.A. Zabkiewicz and D.B. Horgan

Multi-targeting for biological control of ‘sleepers weeds’
R. Groenteman, D. Kelly, S.V. Fowler and G.W. Bourdôt

Assessing the potential for biological control of *Buddleja davidii* with the fungus
Chondrostereum purpureum
T.D. Ramsfield and M.W.P. Power

Wine and Cheese Evening kindly sponsored by:



Wednesday, 13 August 2008

8.30am-10.15am	Agrichemicals
Chair:	Mr Warren Hughes, NZ Food Safety Authority
Convenor:	Mr Alan Cliffe, Nufarm NZ Ltd

Carboxylic acid amide (CAA) fungicide resistance prevention strategy
M.S. Moore, G.B. Follas, G.C. Hagerty and R.M. Beresford

Benchmarking of potato pesticide use in Canterbury
R.F. van Toor, S.L.H. Viljanen-Rollinson and D.A.J. Teulon

Improving spray distribution and coverage on avocado trees in low volume, concentrate sprays
R.E. Gaskin, D.W.L. Manktelow and H. Pak

Development of best practice to minimise off-target drift from hydrogen cyanamide sprays in kiwifruit orchards
R.E. Gaskin, D.W.L. Manktelow, B. May and S. Max

Determination of spray drift using multiple metal cations as tracers
J.A. Zabkiewicz, K.D. Steele and J-P. Praat

Evaluation of the AGDISP ground boom spray drift model
S.J.R. Woodward, R.J. Connell, J.A. Zabkiewicz, K.D. Steele and J-P. Praat

Fluorescence decline ratio: comparison with quantum yield ratio for plant physiological status and herbicide treatment responses
D.B. Horgan and J.A. Zabkiewicz

10.15am-10.45am MORNING TEA

10.45am-12.00pm	Insects in Forestry & Horticulture
Chair:	Mr Dean Satchell, NZ Farm Forestry Association
Convenor:	Ms Lisa Jamieson, HortResearch

Stem injection of insecticides to control herbivorous insects on *Eucalyptus nitens*
S.F. Gous and B. Richardson

Assessing the effect of *Essigella californica* on *Pinus radiata* at two sites in New Zealand
M.C. Watson, D.J. Kriticos, G.M. Drayton, D.A.J. Teulon and E.G. Brockerhoff

Distribution and current status of natural enemies of *Paropsis charybdis* in New Zealand
T.J. Murray, T.M. Withers, S. Mansfield and J. Bain

Timing of sulphur spray application for control of hazelnut big bud mites (*Phytoptus avellanae* and *Cecidophyopsis vermiformis*)
J. Webber and R.B. Chapman

Efficacy of plant volatiles for post-harvest control of Western flower thrips (*Frankliniella occidentalis* Pergande) in fresh produce
C.W. van Epenhuijsen, K.G. Somerfield and D. Hedderley

12.00pm-1.00pm LUNCH

1.00pm-3.00pm	Pasture Ecosystems
Chair:	Dr Glyn Francis, AgResearch
Convenor:	Dr Anis Rahman, AgResearch

Endophyte-infected *Festuca pratensis* containing loline alkaloids deters feeding by *Listronotus bonariensis*

B.J. Patchett, R.B. Chapman, L.R. Fletcher and S.R. Gooneratne

Root loline concentration in endophyte-infected meadow fescue (*Festuca pratensis*) is increased by grass grub (*Costelytra zealandica*) attack

B.J. Patchett, R.B. Chapman, L.R. Fletcher and S.R. Gooneratne

Comparisons of traps and lures for monitoring grass grub, *Costelytra zealandica*

C.R. Unelius, R.J. Townsend, D.C. Mundy, L.M. Manning, T.A. Jackson and D.M. Suckling

Development of a species-specific probe for detection of *Serratia entomophila* in soil

M.R. Hurst, S.D. Young and M. O'Callaghan

Potential for biological control of porina (*Wiseana* spp.) with a novel insecticidal bacterium, *Yersinia* n. sp. (MH96) EN65 strain

M. Brownbridge, C.M. Ferguson, D.J. Saville, J. Swaminathan, M.R. Hurst and T.A. Jackson

Yersinia sp. (MH96) – a potential biopesticide of migratory locust *Locusta migratoria* L.

M.R. McNeill and M.R. Hurst

Impact of nitrification inhibitor application on the nematode community in dairy pasture soil

L.T. Aalders and N.L. Bell

Establishing white clover (*Trifolium repens*) in high pest density regions

J.L. Brock, J.P.J. Eerens, A. Rahman and D.J. Wilson

3.00pm-3.30pm AFTERNOON TEA

3.30pm-5.00pm	Arable & Vegetable Crops
Chair:	Dr Sonia Whiteman, Horticulture New Zealand
Convenor:	Mr Alan Cliffe, Nufarm NZ Ltd

Crop rotation with brassicas reduces *Phytophthora* populations in potato soil

L-H. Cheah, A.T. Marsh, D. Hedderley and R. Falloon

Influences of crop rotation, tillage, residue management and winter cover crop on take-all in spring wheat

M.G. Cromey, G.S. Francis, L.A. Trimmer, F.J. Tabley, R.N. Gillespie, P.M. Fraser, A. Pearson, R.C. Butler, D. Curtin and S.L. Bithell

Conditions surrounding the outbreak of yellow dwarf virus in autumn/winter-sown cereals in Canterbury during 2005

D.A.J. Teulon, C.M. Till and R.F. van Toor

(Session continued on next page)

Wednesday, 13 August 2008 (continued)

Emergence and reproductive rhythms of *Ephestia kuehniella* Zeller (Lepidoptera: Pyralidae)
J. Xu, Q. Wang and X.Z. He

The efficacy of various bait products against the grey field slug, *Deroceras reticulatum*
S.A. Howlett, D.J. Wilson and K. Miller

Chemical control options for the dicamba resistant biotype of fathen (*Chenopodium album*)
A. Rahman, T.K. James and M. Trollove

5.00pm-5.30pm	Annual General Meeting
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7.00pm	Annual Conference Dinner
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Thursday, 14 August 2008

9.00am-10.15am	Management of Grapevine Diseases
Chair:	Mr Philip Manson, New Zealand WineGrowers
Convenor:	Mr Dion Mundy, HortResearch

Spatial interpolation of daily humidity using natural neighbours over mountain areas in South Eastern Australia

K.S. Kim, R.M. Beresford and W.R. Henshall

A cost-loss analysis to evaluate the value of weather estimates as inputs to a disease risk model

K.S. Kim, R.M. Beresford and W.R. Henshall

Production of *Botryosphaeria* species conidia using grapevine green shoots

N.T. Amponsah, E.E. Jones, H.J. Ridgway and M.V. Jaspers

A review of the direct and indirect effects of nitrogen on botrytis bunch rot in wine grapes

D.C. Mundy

Impact of mycorrhizal colonisation on grapevine establishment in *Cylindrocarpon* infested soil

C.M. Bleach, R.J. Cope, E.E. Jones, H.J. Ridgway and M.V. Jaspers

10.15am-10.45am **MORNING TEA**

10.45am-12.45pm Biocontrol of Insect Pests

Chair: Dr John Charles, HortResearch

Convenor: Ms Karyn Froud, Biosecurity New Zealand

Predation of citrus red mite (*Panonychus citri*) by *Stethorus* sp. and *Agistemus longisetus*
L.E. Jamieson, A. Chhagan and J.G. Charles

Development and reproduction of *Diadegma semicalusum* (Hymenoptera: Ichneumonidae) on diamondback moth, *Plutella xylostella* (Lepidoptera: Plutellidae)
D. Khatri, Q. Wang and X.Z. He

Evaluation of coloured sticky traps for monitoring beneficial insects in apple orchards
D.R. Wallis and P.W. Shaw

Biocontrol of pests in apples under integrated fruit production (IFP)
P.W. Shaw and D.R. Wallis

Effect of photoperiod on development and reproduction in Tasmanian lacewing *Micromus tasmaniae* (Walker) (Neuroptera: Hemerobiidae)
A. Yadav, X.Z. He and Q. Wang

European earwig as a potential biological control agent of apple leaf-curling midge
X.Z. He, Q. Wang and J. Xu

Effect of age on the reproductive fitness of *Platygaster demades* an egg parasitoid of apple leaf curling midge
W.R.M. Sandanayaka and A. Chhagan

Effect of host age on searching and oviposition behaviour of *Diaeretiella rapae* (M'intosh) (Hymenoptera: Aphidiidae)
R. Kant, W.R.M. Sandanayaka, X.Z. He and Q. Wang

12.45pm-1.30pm LUNCH (45 minutes only)

1.30pm-2.30pm Weeds in Natural Ecosystems

Chair: Dr Ian Popay, Department of Conservation

Convenor: Mr George Follas, Syngenta Crop Protection Ltd

Natural enemies of bridal creeper, *Asparagus asparagoides*, in New Zealand
H.M. Harman, N.W. Waipara, C.J. Winks, L.A. Smith, P.G. Peterson and J.P. Wilkie

Herbicide selection for wandering Jew (*Tradescantia fluminensis*) control
G.A. Hurrell, T.K. James, C.S. Lusk and M. Trolove

Evaluation of triclopyr triethylamine for the control of wetland weeds
P.D. Champion, T.K. James and E.C. Carney

Safety of triclopyr triethylamine to native wetland species
P.D. Champion, T.K. James and E.C. Carney

2.30pm

**Presentation of Emerging Presenter Award and
Conference Closing**

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