New Zealand Biosecurity Institute

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Protect

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inside

New Zealand Biosecurity Institute

Working together to ensure New Zealand is protected from the adverse impacts of invasive species

NZBI Contacts

Darion Embling
President

Rebecca Kemp
Immediate Past President & Auckland

Sara Moylan
Vice-President & Lower North Island

Jono Underwood
Vice President & Top of The South

Alice McNatty
Secretary

Mark Hansen
Canterbury/ West Coast

Alfredo Paz
Otago/Southland

Alastair Fairweather
Travel/Study Awards Co-ordinator

John Sanson
Biosecurity New Zealand

Chris Macann
Protect Editor & Archives Co-ordinator

Darion Embling	President & Central North Island	(07) 859 0790	Darion.Embling@waikatoregion.govt.nz
Rebecca Kemp	Immediate Past President & Auckland	(09) 366 2000	rebecca.kemp@aucklandcouncil.govt.nz
Sara Moylan	Vice-President & Lower North Island		Sara.Moylan@gw.govt.nz
Alice McNatty	Secretary		mcnatty@hbrc.govt.nz
Jono Underwood	Vice President & Top of The South		jono.underwood@marlborough.govt.nz
Mark Hansen	Canterbury/West Coast		mark.hansen@ecologynz.nz
Alfredo Paz	Otago/Southland	03 211 5412/ 021 784 933	alfredo.paz@es.govt.nz

Other Officers

Chris Macann	Protect Editor & Archives Co-ordinator	03 349 9660	chrismacann@hotmail.com

Seconded Members

John Sanson	Ministry for Primary Industries	(04) 894 0836	John.Sanson@mpi.govt.nz
Alastair Fairweather	Travel/Study Awards Co-ordinator & Vertebrate Pests secondment	(07) 858 0013	afairweather@doc.govt.nz

The New Zealand Biosecurity Institute can be found on the web at www.biosecurity.org.nz

Uncertainties coming and going

Kia ora

In this issue we learn about changes to the biosecurity system, more science about the *Mycoplasma bovis*, and ongoing work to prevent the arrival of the brown marmorated stink bug as well as continued attempts to repel the attempted advances of the fruit fly.

In assembling this issue I discovered a new word - "tomography" which will be familiar to biosecurity border control staff and which will be explained in this issue.

We are also reminded in an article from the archives from conference proceedings in 1990, about the uncertainties created by local body amalgamation.

It's very interesting looking back to see similar uncertainties coming and going in the succeeding years. Read on and enjoy the history making.

Chris Macann,
Editor

Some new faces coming up

It is wonderful to report a full muster for NETS2019 coming up in Tauranga.

It really will be a case of all hands on deck which is something to celebrate.

The Annual General Meeting this year will see some changes to the Executive with Treasurer Rebecca Kemp and President Darion Embling stepping down after sterling service. There will be some new faces on the committee and we look forward to introducing the new faces to you over the next few issues of Protect Magazine.

Keep up the good work one and all and thank you for your support of YOUR Executive Committee.

The 2018-2019 NZBI Executive Committee

Darion Embling, President

Top of the South Branch Field Trip and Annual General Meeting

By Ken Wright

On 19 June 2019, twelve members met in Blenheim to: listen to members work presentations, conduct an annual Branch AGM and in the afternoon attend a field trip.

The presentations were:

Ken Wright. "Cyclone Fehi" and the resulting Boneseed spread, from extreme wave surges stripping duff layers from Jackett Island in the Moutere estuary.

Seedlings have sprouted in storm detritus, deposited on adjoining estuary shores.

Rob Simons. Tall Wheat Grass a unique infestation of Coastal paddocks in the Dillons Point area of Marlborough.

This infestation was noted in 2015 and was the result of some seed sown as an informal trial decades ago but not destroyed.
The extent of the infestation has been defined and control methods have been initiated, as it poses a potential threat to coastal saline wetlands.

Jono Underwood. Plague Skink arrivals in Marlborough, the first such established populations found in the South Island.

Interestingly they have been found in two unrelated industrial locations. An industrial estate with freight hubs and wineries at Riverlands and a Marine farming storage area at Havelock. The origin of the Riverlands incursion is unknown but has been present for many years based on the distribution. It could have come in pallets of cardboard cartons or other associated freight. The Havelock incursion is known to have arrived in large bags of used mussel ropes. The source of the incursions were both from the North Island with the mussel ropes coming from Coromandel. Sticky traps, have been used to capture skinks, with a special protocol developed to remove the skinks humanely and released native skinks caught.

Kurt Schollum. RHDV K5 releases in Marlborough.

Long-standing Rabbit and Hare night counts in Marlborough. There has been a long-standing night count conducted on Marlborough's rabbit prone lands for many decades. Long-term trends indicate rabbit numbers are currently very low at 0.8/km of night count route compared with much higher in the past. It would appear that in Marlborough, as has been seen elsewhere, the effectiveness of the K5 virus has resulted in an average of a 40% reduction in populations.

Erik van Eyndhoven. An update MPIs incursions

What is happening with the various incursions that have arrived in NZ and in our regions.

A recent interception of a vessel carrying a significant infestation of Mediterranean fanworm in Waikawa Marina near Picton

Jono Underwood. Grappling with *Sabella*.

Recent arrivals on a clean yacht from Auckland with a heavily infested keel bottom. Ongoing response programmes, now under the Regional Pest Management Plan with support from MPI, are occurring in Waikawa and Picton marinas, to prevent establishment and capture the odd arrival. MDC also have a comprehensive surveillance programme using divers at numerous other locations also aimed at early detection.

Grovetown Lagoon Chairperson, Tim Barton explains the partnership and how it is getting things done.

In the afternoon, a field trip was held to the Te Whanau Hou/ Grovetown Lagoon. A partnership involving, community groups, tangata whenua, adjoining vineyards, corporate

A beautiful Marlborough day in mid-Winter. The new boardwalk built by Fulton Hogan, one of Grovetown Lagoon's commercial partners.

engineering companies and Marlborough District Council are restoring this oxbow lake in the lower reaches of the Wairau River. Ben Minehan of Weed Solutions Ltd, conducted the field trip and explained the finer points of controlling a mixture of mature willow species, in permanent water margins.

A biodiversity planting programme and predator control has been started. Tracks and bridges have been built, along with bench seats in strategic locations. There has been traditional use by waterfowl hunters, who have long ago established maimais in this wetland. There has been some early conflict between the new public use and the water fowlers but discussions are trying to accommodate both uses into the future. Some of the wetland sunk during the Seddon earthquake and this has effectively enhanced the flow of the natural springs that occur in this area.

The branch participants had a thoroughly interesting and informative day.

Big changes for biosecurity

In July Biosecurity Minister Damien O'Connor unveiled big changes to New Zealand's biosecurity system, including new law changes to strengthen animal tracing and details of a Biosecurity Act overhaul.

"Biosecurity is fundamental to the protection of our environment, our economy and our cultural and social wellbeing.

"I'm having both the Biosecurity Act and the National Animal Identification and Tracing Act (NAIT) overhauled to ensure they meet our future needs.

"The Biosecurity Act is now 26 years old. We're operating in a different world than we were in 1993. Tourism, imports and the rise of online shopping have meant a corresponding increase in biosecurity risk.

"Over the last few years there has been an increase in large biosecurity responses including *Mycoplasma bovis*, Bonamia, Myrtle Rust and Queensland Fruit Fly.

"As the climate warms we face a greater threat from exotic insects and pests to our primary industries.

"Today I have released the terms of reference that define the objectives and structure of the Biosecurity Act's overhaul. The work will be led by Biosecurity New Zealand. They have started working with Māori, industry, and others to upgrade the Act. We will look at every aspect of the Act including compensation and funding.

> "The Mycoplasma bovis outbreak is the single biggest biosecurity event New Zealand has faced and it highlighted flaws in the NAIT scheme and Biosecurity Act. We're putting that right."
>
> *- Damien O'Connor*

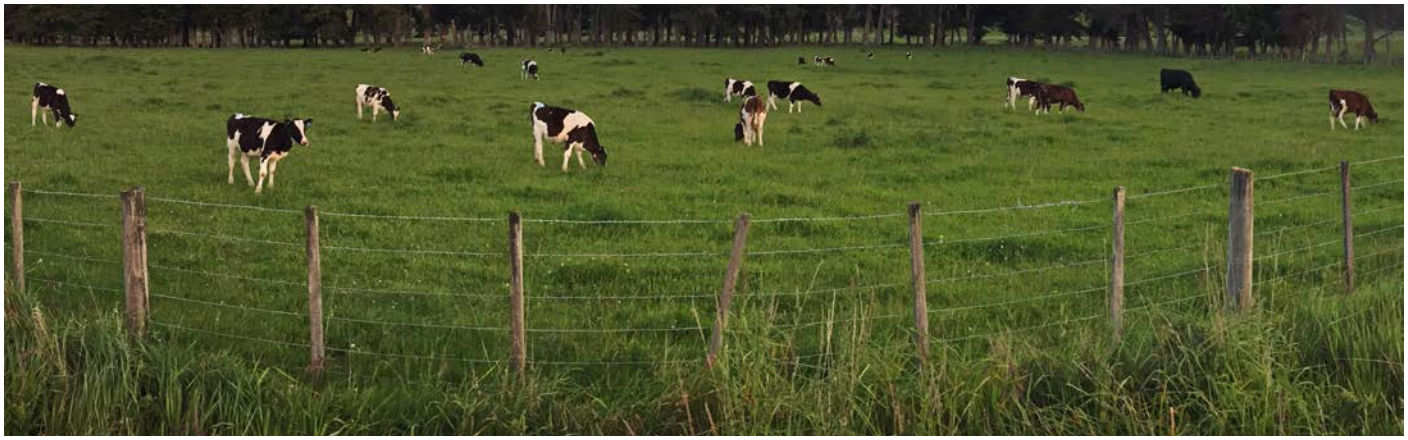
"We need learn from the bovis experience and have better pieces of legislation as a result of it.

"I have been working with Biosecurity New Zealand and NAIT Limited, which manages the NAIT scheme, to fix it and make sure it is fit for the future.

"Earlier this year I announced a package of suggested changes to NAIT and Cabinet has now agreed to them.

The changes we're making will take New Zealand a step closer to having the animal tracing scheme we need to keep our primary sectors and economy safe."

All New Zealanders will have an opportunity to have their say. Dates for formal consultation on the Biosecurity Act will be announced later in the year and the public will have another opportunity to give feedback on the changes to the NAIT Act when the bill is in Select Committee.



Hessian: the front line of defence

Biodegradable hessian matting continues to be at the front line of defence against the spread of the invasive weed lagarosiphon in Lake Wanaka.

The hessian was first trialled in Lake Wanaka over four years ago and, as a result of its success, it is now being used extensively in the lake and elsewhere in the South Island. It's being used close to the shoreline, so boaters need to take extra care to avoid tearing the matting on the lakebed.

"Hessian matting has proved to be a really effective tool for killing off the invasive plants and preventing them from spreading across Lake Wanaka," said Boffa Miskell biosecurity consultant Marcus Girvan.

"Over summer people involved with the project asked anyone using a boat to lift their prop out of the water as they neared the beaches where hessian was laid. Signs were also erected warning the public of the risk of snagging the hessian.

continued ▶▶

Removal of willows to prevent lagarosiphon spread

▼ *continued*

Boffa Miskell and Land Information New Zealand (LINZ) have been leading a concerted effort to tackle the weed.

Lake Wanaka is one of four lakes in New Zealand to have the matting. The relatively flat lakebed means divers can easily lay the matting, smothering the lake weed whilst allowing native plants to grow through the weave.

"We've done quite a bit of experimenting with this type of hessian," said LINZ Biosecurity Director, Dave Mole. "Inspections by NIWA have shown the positive impact it's having on the lake's ecosystem."

"The use of biodegradable hessian has been a game-changer at Lake Wanaka," said Marcus.

"Although it's relatively expensive at around $60,000 per hectare, once it is laid very little follow up control is required, which will reduce reliance on herbicides in the long run."

In October last year Boffa Miskell reported on the success of a project to keep Lake Wakatipu free of the fast-growing invasive weed lagarosiphon.

The battleground was the Upper Kawarau River at the outlet of Lake Wakatipu, where a 10-hectare mass of lagarosiphon sat less than 1km from the Kawarau Falls Bridge. The Kawarau River is an adventure tourism hot-spot, which made the likelihood of inadvertent infestation of the lake a real hazard.

Christchurch-based biosecurity consultant Marcus Girvan said, "Boats were driving past this mass each week, collecting fragments, and depositing them into the lake."

> "Cordoning helped, but we knew it wasn't enough."
>
> *- Marcus Girvan*

In May of 2017, three sections of the upper Kawarau River were cordoned off with buoys to restrict lagarosiphon from spreading into the lake.

It was determined that a large mass of dead, submerged willow trees in the Upper Kawarau was providing a habitat for lagarosiphon and impeding biosecurity efforts - including the installation of biodegradable hessian mats, which have proved effective in managing lagarosiphon in lakes Dunstan and Wanaka.

At first, it was thought that divers could manually remove the willows, but the sheer volume of material made this unsafe, and impractical. Instead, Otago Regional Council funded a large barge with a 24-ton digger to remove over 150 tons of woody vegetation from the riverbed.

"With the majority of submerged willows removed, divers are now able to lay hessian to suppress the weed", said Marcus, however he remains realistic about what it will take to succeed. "This is one of the country's most challenging aquatic weed control projects, therefore further innovation around new control tools will be needed to win this battle and protect Lake Wakatipu".

Otago Regional Council funded a large barge with a 24-ton digger to remove over 150 tons of woody vegetation from the riverbed. [Photo: Boffa Miskell]

Passenger and mail biosecurity review results please MPI

What is tomography?

Tomography is imaging of cross-sections by a penetrating wave. Tomos is Greek for "slice or section" The machine is a tomograph, and the image is a tomogram.

At the end of April the Ministry for Primary Industries (MPI) welcomed the findings of an independent review of its biosecurity passenger and mail controls at the border, saying it support its current direction.

The review was commissioned by MPI director-general Ray Smith after fruit fly was detected in Auckland earlier this year. It was conducted by Australian biosecurity expert Rob Delane who has since been appointed to the role of inspector-general of biosecurity in Australia.

"It is pleasing to see that, overall, the review found the border protection services in the mail and passenger pathways are world-class and they protect New Zealand well," said Mr Smith.

"The review also notes the significant challenges our border is under and that ongoing tactical and strategic improvement is essential. To that end, a number of recommendations are made that I will ask Biosecurity New Zealand to carefully consider."

A central finding of the review was the need to adopt new technology to ensure MPI's border systems kept up with rapid changes in travel and trade.

"The findings support our work to develop new baggage scanning technology, recommending that we move quickly to use real-time tomography to scan all baggage at Auckland Airport.

"We are very well advanced in developing a prototype scanner that can automatically detect goods that pose biosecurity risk. Earlier this month, officers detected an egg in a suitcase shortly after the installation of the first version of software specially designed for biosecurity.

"The review also suggests there are limitations with current mail and airport facilities in Auckland that may impede biosecurity. We are currently in discussion with the property owners to upgrade these facilities.

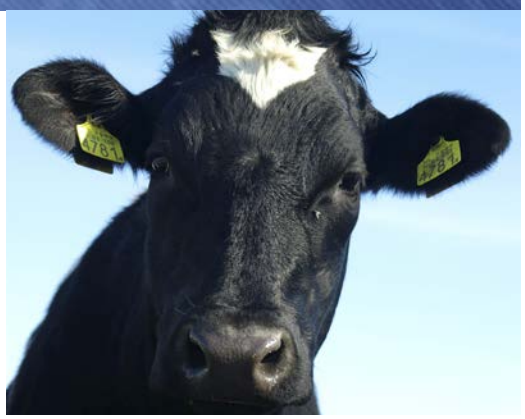
"Interestingly, the review does not see a case for additional detector dogs, suggesting that other changes would lead to more effective use of our existing dog resources.

"The review recommends finding ways to fast track low-risk passengers through our airport processes. We are keen to talk further about this with airlines and airports, but our bottom line will always be that biosecurity cannot be compromised.

"Overall, the recommendations reinforce a lot of things that are already on our radar. We will look at how they can fit into our existing work programme."

The recommendations include:

- fast deployment of new scanning technologies such as real-time tomography for suitcases and computed tomography for rapid scanning of hand baggage
- more development of public awareness measures, such as smartphone-enabled digital tools for arriving travellers
- separating arriving passengers carrying commercial quantities of food from other international travellers
- extending a scheme involving the pre-clearance of approved food packages carried by passengers from Tonga and imposing stiff penalties for any breaches
- charging cruise ship operators that are not covered by the existing accreditation scheme for all costs relating to biosecurity services provided by MPI
- improved access to intelligence to aid risk assessment decisions regarding express freight
- working with New Zealand Post to address infrastructure issues at the International Mail Centre in Auckland.
- introducing new scanning technology at the mail centre.



Study will reveal more about Mycoplasma bovis impact on cattle

In early July the Ministry for Primary Industries (MPI) and its *Mycoplasma bovis* eradication partners DairyNZ and Beef + Lamb New Zealand announced they have initiated a research project into the direct impact of the disease.

The study is part of the *Mycoplasma bovis* Science Plan which aims to address the scientific challenges and research new tools that accelerate eradication of the bacterial disease.

Researchers will measure how *M. bovis* affects infected animals and herds, including physical signs, effects on milk yield and quality, weight gain in cattle, and the duration of these effects.

"This study will increase our knowledge of the impact of *M. bovis* across different New Zealand farming systems. This is important as we need to have greater direct scientific understanding of its impact in a New Zealand farming context," said MPI's chief science adviser and chair of the *M. bovis* Strategic Science Advisory Group.

"We will use the findings to improve our detection of the disease, our surveillance tools, and to increase our understanding of how it spreads, which is key for eradication."

Only cattle already known to be positive for *M. bovis* will be used in the study. No cattle will be intentionally infected, and cattle will only be studied up until their agreed cull date.

New Zealand is the first country in the world to attempt to eradicate *M. bovis*. Dr Roche said science is a critical weapon in this fight, as recognised by the Government investment of up to $30 million for science.

This is the second *M. bovis* Science Plan project to go out to market, with the call for proposals for a major diagnostic research programme made several weeks earlier.

Advice for calf club organisers

Calf club is part of New Zealand rural life. However, in the wake of the *Mycoplasma bovis* (*M. bovis*) outbreak, some events have not gone ahead.

MPI is getting behind the clubs to ensure that with good biosecurity, any risks are kept to a minimum and calf club is fun for everyone.

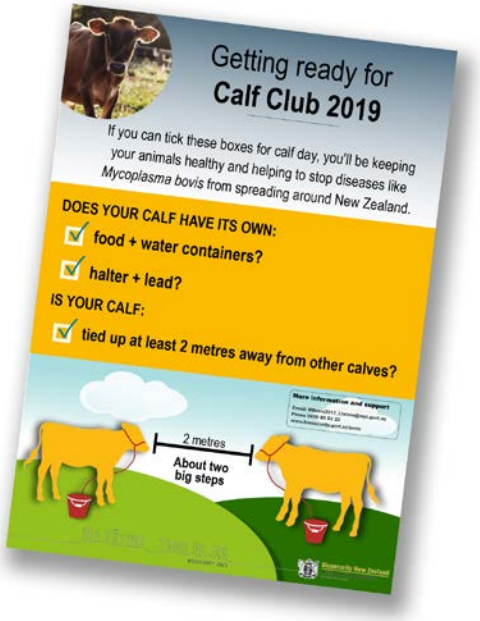
This coming spring, the Ministry for Primary Industries (MPI) is advising calf club organisers how to take extra biosecurity steps to avoid the spread of *M. bovis*.

MPI has created a poster and a teacher pack with basic biosecurity tips, to keep our calves healthy on the day.

Packs have been sent by mail to more than 1,000 rural schools, providing tips to make calf club safe for our rural communities.

There's advice on how to transport and hold calves (ideally in separate pens, or at least 2 metres apart, and with their own water and food containers), being registered with NAIT, and ensuring the environment is safe for both calves and people.

Bringing animals from different herds together poses a relatively low risk of disease spread, but with precautions in place, hazards can be reduced and fun events like these can still go ahead.



New stink bug rules

In July Biosecurity New Zealand provisionally released new rules intended to keep brown marmorated stink bugs out of New Zealand.

The new regulations will apply to this year's stink bug season, which starts on 1 September and will run until 30 April.

Following consultation with industry, the list of countries that have requirements to treat imported vehicles, machinery, and parts before they arrive in New Zealand will rise from 17 to 33. These countries have all been identified as having stink bug populations.

The other big change is that imported cargo relating to vehicles will need to be treated offshore, including sea containers. Only non-containerised vehicle cargo has required offshore treatment in the past, said Biosecurity New Zealand spokesperson Paul Hallett.

Offshore treatment requirements will also apply to all sea containers from Italy.

"The new rules are intended to reduce the biosecurity risk to New Zealand, by ensuring potentially contaminated cargo arrives as clean as possible."

Mr Hallett says Biosecurity New Zealand is planning to have officers based in Europe this season to educate manufacturers, treatment providers, and exporters about the new requirements and to audit facilities.

"If our checks find any issues, New Zealand will not accept any cargo from that facility until the problem has been fixed."

Mr Hallett said New Zealand's treatment requirements are now closer to Australia's, which will make compliance easier for importers bringing cargo to both countries.

"A key difference is that the Australian Department of Agriculture and Water Resources will continue to allow treatment on-arrival for containerised goods.

"In addition, the stink bug season in Australia will run a month longer than ours. This is because warmer climatic and daylight conditions could allow stink bug to establish later in Australia."

The release of the new import health standard were provisional for 10 days from 5 July. Interested parties that provided a submission could contest the new rules during that period.

Update: Fruit fly in Auckland

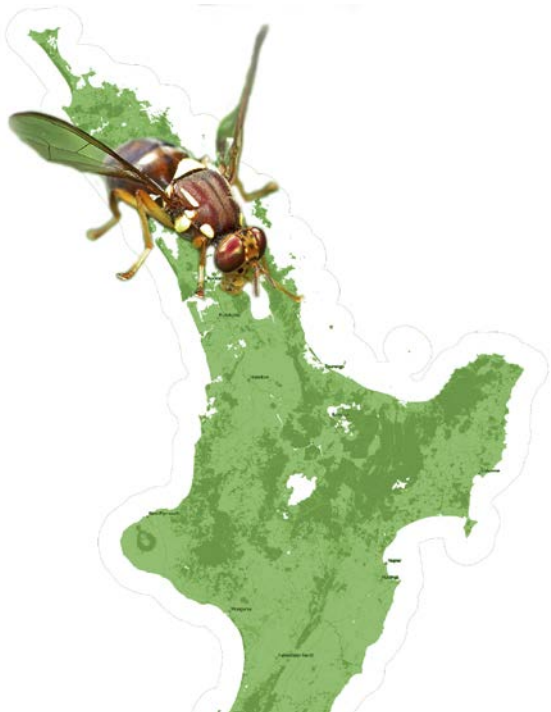
In a July 19th update Biosecurity New Zealand reported there has been no let-up in its response to the recent fruit fly finds in the Northcote area, with restrictions remaining in place to contain the pest.

Since 26 April, an area of Northcote has been under a Controlled Area Notice. This restricts the movement of certain fruits and vegetables out of controlled areas to help prevent the spread of any fruit flies still in the area.

Along with the continued restrictions, a network of fruit fly surveillance traps which attract male fruit flies have remained in the area over winter and are regularly checked.

"It is that continued vigilance that led to the discovery of another single male fruit fly on 15 July in a trap in the current controlled area, 350 metres from where the last was found on 31 May," said Biosecurity New Zealand spokesperson Dr Catherine Duthie.

"We cannot afford to take our foot off the pedal. We have found 10 of these flies in the Northcote area since February, and while we still haven't found any evidence of larvae, pupae, eggs or female flies, the continued finds indicate that Queensland fruit flies remain in the area, albeit at very low levels."



"Once we start heading out of winter, we will be looking at stepping up again, with the focus on maintaining controls and continuing with baiting and more intensive trapping," said Dr Duthie.

The cost of capsicums

Capsicums were in short supply in supermarkets at points during this winter, after biosecurity concerns were discovered at the border.

The country's two major supermarket chains - Countdown and Foodstuffs said they had both encountered problems with some of their overseas shipments.

Foodstuffs, said it had issues with three shipments of capsicums from the Netherlands, that meant the produce couldn't be sold.

Countdown said slower border clearance processes were behind its shortage.

It said the ministry had increased its focus on identifying lesions on produce.

The Ministry for Primary Industries said there had been issues in the past few weeks with some imports of capsicum that had a fungus.

"If fresh produce is not compliant with biosecurity regulations, MPI interventions can have disruptions in supply chains and destruction of the product is a possible outcome," the ministry said.

A genuine desire to see a job well done and to carry out that work in an efficient manner

Welcoming address. Institute of Noxious Plants Officers Annual Conference, Hamilton 7th - 9th May 1990

David Brown, National President

Good morning ladies and gentleman, welcome to this the forty-first conference of this Institute.

A special welcome to the distinguished guests here this morning and I would like to introduce you to them - Mr Willis Burns of the recently formed Noxious Plants Training Trust, who will be speaking to you shortly; Mr Stuart Macaskill, Chairman of the Regional Government Association and the Hon John Falloon MP, Opposition Agricultural spokesman.

It is pleasing that we have here today a good attendance of Noxious Plants Officers and elected members. I did have my doubts as to whether or not we would have a good attendance at this Conference because of amalgamation as numbers attending at the end of March were very few then. However, it must be realised that with amalgamation being forced upon us and having to accept who employs noxious plants officers that there would be some officers like myself who would no longer be involved in noxious plants control work. Secondly, with many officers being employed on a regional basis, that some would no longer be able to attend every Conference on a regular basis as they had done in the past.

I hope that the elected members here today, some of you who may be new members on Regional Councils realise the importance of noxious plants control and that the good work which has been carried out in the past in the eradication of dangerous and widespread noxious plants will continue to go on unhindered. We are what we consider a very professional body in our field of work and pride ourselves in the work that we do, and I would hope that in the future every consideration will be given by the employing authorities to allowing not only one but all officers to attend these Annual Conferences.

To those noxious plants officers here today who have other officers working the same regional authority as yourselves but who cannot be here today it is important that you communicate with them the knowledge gained at this and future Conferences. As an urban officer and one who is now no longer involved in noxious plants control work or any inspectional work for that matter I have gained a lot from attending Conferences over the last fifteen or so years but must confess that at times some issues about different things left me a little confused.

This is an Institute that has been built up over the last 41 years by people who have had a genuine desire to see a job well done and to carry out that work in an efficient manner. It is an institute which has been built up on loyalty, mutual understanding and trust and I only hope it will stay that way and that we will still continue to honour these ideals if and when this Institute amalgamates with that of the Pest Destruction Officers Institute.

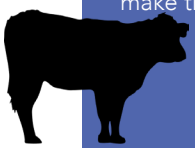
There is possibly a lot more I could say here today what amalgamation has meant to me, to all of us and reflect back my recollections of this Institute over the last sixteen years but that would take time but would conclude this address by saying - that we live in a changing world, never again will we become used to the world we once knew, irrespective of what political party is in power, but we must learn to face up to and accept these changes whether they be good or bad for us or whether we like it or not and accept every challenge with a positive sense of attitude.

Institute of Noxious Plants Officers Conference Proceedings 1990

The Tail

Knocked it right down a bank, he did

One night at Tarawera, on the road from Taupo to Napier, some poor bloke on a motorcycle stopped when he saw some stock on the road. Using a torch, he began to warn oncoming traffic of the cattle's presence. One driver, saw the torch, saw the cattle, swerved, but didn't see the guy's motorcycle. Knocked it right down a bank, he did: Didn't half make the torch-bearer mad.



From The Editor's Notebook, Protect October 1977