Also in this issue

Human impacts on New Zealand’s environment
Hydatids-free status a step closer
Chronic wasting disease surveillance stepped up
Live animal export assurance changes
Pecking order and the welfare of chickens
Pain expert visits
Tourist pays price for smuggling budwood
Eucalypt pests cross Tasman
Sex pheromone trap developed
Contents

Features

3  A Biosecurity Strategy for New Zealand
4  Coping with the aftershocks of our arrival
5  Participants find common ground at Biosecurity Institute conference
6  Next step on path to hydatids freedom
8  Incentive scheme extended to chronic wasting disease
9  Animals and animal germplasm export changes
10 Surveillance monitors varroa spread
11 Border protection fact sheet
   Pacific colleagues visit MAF Biosecurity
   Biosecurity people: Surveillance and Response Team
   Update: Import health standard for fresh table grapes (Vitis vinifera) from Italy
12 Urge to establish peck order bred out of chickens?
13 Pain specialist visits New Zealand
14 Hamilton conference commemorates pioneering behavioural scientist
   Biosecurity people: Biosecurity Coordination – Policy Team
15 Tourist fined for smuggling grape wood
   Mail centre x-rays uncover thousands of risk items
   Border Patrol to return
16 Eradication not viable for new eucalypt pests
   Biosecurity People: Forest Biosecurity welcomes new Director
17 Propagability-testing services: expressions of interest requested
   Sex trap developed for skeletoniser eradication campaign

Update

18 New import health standards issued (Animal Biosecurity)
   Bovine semen from the United Kingdom
   A culture of care – A guide for people working with animals in research, testing and teaching
   Codes of ethical conduct – approvals, notifications and revocations since the last issue of Biosecurity
19 Import health standard for soil, rock, gravel, sand, clay and water from any country
   Export phytosanitary certification: technical policy directives

Directory

20 New organism records: 29/06/02 – 16/08/02
Cover: Elizabeth Crowe, 2, and her dad Michael meet Woody Weed in Wellington’s Botanic Gardens. Woody, the Western Australia Department of Agriculture’s biosecurity mascot, was visiting New Zealand recently to support the recent annual conference of the New Zealand Biosecurity Institute.
Photo: Andrew Gorrie, DominionPost
A Biosecurity Strategy for New Zealand

By Dr John Hellström, Independent Chair of the Biosecurity Council

Most of the readers of this magazine know that biosecurity is important for Aotearoa, New Zealand, but most of you will be surprised to know just how important it is. Almost half of our economic activity and two thirds of our trade are based on our primary industries. This is five times higher than the average dependence of the OECD countries; no other country comes close.

As well, most of our native flora and fauna are endemic species. Even a majority of our marine species are not found naturally anywhere else on Earth. We also have almost no stinging, biting or disease-spreading animals or plants.

We have something very special to protect and so much to lose; biosecurity means more to us than to any other country. It is not surprising that we invented the concept of biosecurity and continue to lead the world in the ways we do it and think about it. Our geographic isolation, small and educated population and pride in our unique native species provide a special opportunity to do it well.

But we still need to do better.

The Parliamentary Commissioner for the Environment and the Biodiversity Strategy have highlighted the need for a strategy about how to provide biosecurity. The Biosecurity Council also recognised this need but had no resources to address it until funding became available as a result of the Government adopting and implementing the Biodiversity Strategy.

Work started more than 18 months ago and has involved an extensive process of consultation with stakeholders. Right now we are in the critical stage of developing this strategy, which is planned to guide New Zealand’s biosecurity activities for at least the next 10 years. The strategy development team, led by Malcolm Crawley, have identified a very wide range of issues affecting our biosecurity. Based on their work some major strategic themes have emerged.

How can we better identify and maintain the skills and resources we need to provide strong biosecurity?

How can we make better decisions about how to apply those skills and resources to get the best outcomes for the economy, our biodiversity and our public health?

What are the most equitable and efficient ways to decide how much biosecurity to do and how to pay for these activities?

What needs to be done to ensure that biosecurity decisions are rational and consistent wherever they are made so that we get the best combination of activities from those carried out before the border right through to those directed at eradication or control?

How can we help all New Zealanders to make good biosecurity decisions as they go about their daily lives?

A steering group of Biosecurity Council members is now overseeing a process of policy analysis to develop strategic responses to these questions. The resulting strategic plan should be available for a second round of consultation before the end of the year, about three months later than originally planned.

Biosecurity Issue 38 • 15 September 2002

About the author

John Hellström has been the independent chairperson of the Biosecurity Council since it was established in 1997. John is a veterinary epidemiologist and has worked on biosecurity programmes since the 1970s, including five years as MAF’s Chief Veterinary Officer, 1987-1991. Subsequently John has had a varied career working in the international veterinary pharmaceutical industry and carrying out a wide range of biosecurity assignments for various agencies. John and his wife Judy live deep in the Marlborough Sounds indulging their passion for indigenous biodiversity, rehabilitating several hectares of reverting farmland by waging war on introduced pests and weeds and re-establishing local indigenous species.

About the author

John Hellström has been the independent chairperson of the Biosecurity Council since it was established in 1997. John is a veterinary epidemiologist and has worked on biosecurity programmes since the 1970s, including five years as MAF’s Chief Veterinary Officer, 1987-1991. Subsequently John has had a varied career working in the international veterinary pharmaceutical industry and carrying out a wide range of biosecurity assignments for various agencies. John and his wife Judy live deep in the Marlborough Sounds indulging their passion for indigenous biodiversity, rehabilitating several hectares of reverting farmland by waging war on introduced pests and weeds and re-establishing local indigenous species.

A steering group of Biosecurity Council members is now overseeing a process of policy analysis to develop strategic responses to these questions. The resulting strategic plan should be available for a second round of consultation before the end of the year, about three months later than originally planned.

www.biostrategy.govt.nz

About the author

John Hellström has been the independent chairperson of the Biosecurity Council since it was established in 1997. John is a veterinary epidemiologist and has worked on biosecurity programmes since the 1970s, including five years as MAF’s Chief Veterinary Officer, 1987-1991. Subsequently John has had a varied career working in the international veterinary pharmaceutical industry and carrying out a wide range of biosecurity assignments for various agencies. John and his wife Judy live deep in the Marlborough Sounds indulging their passion for indigenous biodiversity, rehabilitating several hectares of reverting farmland by waging war on introduced pests and weeds and re-establishing local indigenous species.

A steering group of Biosecurity Council members is now overseeing a process of policy analysis to develop strategic responses to these questions. The resulting strategic plan should be available for a second round of consultation before the end of the year, about three months later than originally planned.

www.biostrategy.govt.nz
Coping with the aftershocks of our arrival

The MAF Biosecurity Protect New Zealand campaign aims to create a sense of personal responsibility among New Zealanders and our visitors for protecting our environment and economy. In his support for the campaign, New Zealand's first Minister for Biosecurity, Hon Simon Upton, reflects on the reasons why the biosecurity stakes are so high for New Zealand.

Most New Zealanders have grown up with the idea of unwanted biological invaders. But for many years public imagination was fixated on a small number of villains. When I was a child, foot and mouth disease was the apocalypse that waited in the wings. As our economy has diversified, the range of potential scourges has multiplied with it – fruit fly for the horticulturists, gypsy moth for the forest sector.

While most people grasp the economic seriousness of our on-going surveillance battle, the biological and ecological forces at work are much less well understood. They are complex and fascinating.

New Zealand's ecology has been undergoing traumatic change for the best part of a millennium. The evidence for that can be spotted in any major New Zealand museum with their melancholy display cases of long extinct moas, Haast eagles and huias. New Zealand's North and South Islands were the last big islands on the face of our planet to be discovered by humans and it was awfully bad luck for the indigenous species that we were the first terrestrial mammals (save for two species of bat).

First Maori, then Europeans, walked into an ancient and separate island ecology full of niches that had been filled by birds. Neither people understood what they were unleashing. Maori created havoc through fire and the hunting of prized bird species. The colonising British in the nineteenth century started another wave of extinctions as they laid waste to the forests and introduced a vast new array of animals. In the absence of their traditional predators, many failed to behave as expected. The chaotic succession of disasters is part of our folk lore: virgin landscapes laid low in the cause of grazing livestock; pastoralism brought to its knees by plagues of rabbits; stoats and weasels introduced to attack the rabbits turning, instead, on native birds. But this wasn’t just a nineteenth or early twentieth century phenomenon. Until quite recently a tidal wave of exotic plants has continued to pour into the country as gardeners have sought novelties for their flowerbeds and shrubberies. Like the rabbits before them, they haven’t stayed where they were supposed to.

We now have two distinct ecosystems, neither in a particularly stable state. There are the original indigenous ecosystems, pushed to the margins of the landscape in places like National Parks and groaning under the onslaught of possums and other pests. Then, superimposed on the indigenous ecology, is a collection of exotic grassland and forest ecosystems. They are not, however, anything like the Northern Hemisphere ecosystems they mimic – because all sorts of bits are missing. Many predators and competing species didn’t make the journey which has meant enhanced productivity and vitality for key sectors of our biological economy.

In short, we started with an indigenous ecology full of unique species that had no competitive resilience. Europeans then superimposed incomplete and alien farming ecosystems that were full of gaps and thus wide open to invasion. The result now is a complex ecological tapestry with all sorts of fraying edges and empty niches for invasive latecomers. We have been conducting a vast and uncontrolled ecological experiment in real time across an entire country (although we’ve only been conscious of doing so for a few short decades and we still haven’t figured out the rules). And while the days of intentional heroic importations are over, the rising tide of trade and tourism means the risks of accidental introduction have never been higher.

The economic case for keeping unwanted pests out is well understood. The environmental case – built on a desire to preserve our unique Gondwanan heritage – is more recent. But together, they provide New Zealand with a more powerful motive for guarding its biological assets than exists in most other countries.

This sets us apart from the bulk of the world’s people, who live in continental settings where political borders bear no relationship to ecological boundaries. While arrival declarations in most countries routinely ask whether travellers are carrying living material with them, there is not the sense of impending – but preventable – crisis that applies in New Zealand. There are reservoirs of all sorts of nasty things lurking throughout Africa and Eurasia. But the lack of natural moats means that what is possible from a biosecurity standpoint is very different.

Interestingly, biosecurity as we use the term has not really penetrated public consciousness. If you talk of biosecurity in the Northern Hemisphere most people think you are talking about either bio-terrorism or the unmanaged escape of genetically modified organisms. These are, of course, elements of what biosecurity in its broadest sense is all about – seeking to manage human health and economic risks posed by the unwanted release of biological agents. And herein lies one of New Zealand’s most interesting opportunities.

Whereas for most people the risk of unwanted biological incursions is a new phenomenon, it’s something New Zealanders have lived with for nearly

Continued on Page 5
Continued from Page 4

200 years. A large chunk of our economy is reliant on biosecurity and knowing how to maintain it. It should be an area where our skills outstrip those of many other countries by accident of the constant state of readiness we have to be in. This is the age of bio-sensors and analytical techniques that can detect, identify and monitor the mind-bending array of organisms that, for totally different reasons in different parts of the planet, people are trying to keep at bay. Rather than trying to search for the knowledge economy in traditional hi-tech areas, shouldn’t we be seeing our biological vulnerability as an opportunity? Because the huge array of skills we have assembled to guard our borders – and no doubt begrudged as a costly burden – is, in fact, the intellectual front line of a struggle that is rapidly gaining global currency.

We may not have got to grips with the biological forces at work in New Zealand. And we will never be able to keep everything out forever. But as we have sought to come to grips with the challenges, we have unwittingly developed the skills and technologies that could be the key to completely new sources of wealth – rooted in the same traditional industries that both built the nation and unleashed many of its problems.

www.protectnz.org.nz

Participants find common ground at Biosecurity Institute conference

Environment Southland, Te Taiao Tonga, were the successful hosts of the annual conference of the New Zealand Biosecurity Institute in July (Biosecurity 36:10).

The conference attracted more than 100 participants and speakers were drawn from regional councils, AgResearch, AgriQuality, the Cawthron Institute, DOC, ERMA, Forest Research, MAF Biosecurity, NIWA and Landcare Research.

One of the highlights of the conference was keynote speaker Sandy Lloyd’s talk on weed awareness initiatives in Australia combined with DOC’s announcement of its commitment to funding a weed awareness programme in New Zealand over the next two years.

Sandy works for the Department of Agriculture in Western Australia where a feature of weed awareness activities is the costumed assistance of “Woody Weed”. Woody put in an appearance in Invercargill, and later Wellington, and proved a hit with the media.

The many options for and importance of public education was a common theme to many presentations. One example from Murray Nieuwenhuyse of DOC, Invercargill, is the targeting of boat owners to prevent the spread of aquatic weeds from lake to lake through a partnership with service stations.

The conference also provided a platform for discussion of the trials, tribulations and success stories experienced by people ‘in the field’. One such success story is the use of helicopters for eradication and control of spartina, presented by Graeme Miller, also of DOC, Invercargill. Spartina is a highly invasive plant that alters both the physical structure and biological composition of tidal marshes, mudflats and creeks.

Other topics covered included pest fish, pests of Australian trees found in New Zealand, biological control agents and incursion response for exotic pests.

The New Zealand Biosecurity Institute has grown out of the former Institute of Noxious Plants Officers. It has been rebuilding its membership across a wide range of interests and occupations, and welcomes all enquiries. In addition to its website, the Institute publishes a regular newsletter called Protect.

Lynley Hayes, President New Zealand Biosecurity Institute, phone 03 325 6701 x 3808, fax 03 325 2418, HayesL@LandcareResearch.co.nz

www.biosecurity.org.nz

Conference get-together: West Australia biosecurity mascot “Woody Weed” makes friends with a New Zealand counterpart, Environment Southland’s “Bruce C. Gull”.

Biosecurity Issue 38 • 15 September 2002
Hydatids provisional freedom declared

Although New Zealand is provisionally free from hydatids, continued controls and vigilance are needed to stop the disease coming back.

A significant milestone has been reached with Dr Derek Belton, Director Animal Biosecurity declaring New Zealand provisionally free from hydatids.

Dr Belton says surveillance results over the past decade indicate that hydatids has been all but eradicated from New Zealand. Given the long life cycle of the disease, however, it would be premature to declare full freedom. Instead, MAF has chosen to declare provisional freedom.

If, after a further 5 years of surveillance, we find no evidence of any further hydatids, we will be in a position to make a case for full country freedom.

Controls to continue

In the meantime, New Zealand will continue to look for hydatid cysts in animals at abattoirs and export meat works and the finding of any cysts will trigger a response just as it does now. In effect, over the last decade we have been managing hydatids as if it were an exotic disease. The obligations regarding home killing and dog feeding will be maintained. These obligations are contained in a controlled area notice under the Biosecurity Act 1993. The obligations are:

- the slaughter of ruminants and pigs in home-killing facilities must be within a dog-proof enclosure
- owners must ensure that dogs are controlled so they are not able to gain access to offal (liver and lungs of ruminants and pigs) in carcasses that may be lying undetected on properties
- offal must be boiled for 30 minutes before feeding to dogs.

As long as live animals are imported, there will always be a risk of re-introducing the parasite because hydatids is widespread in the world. Import health standards will have measures to prevent the importation of hydatids and all imported sheep, goats, deer and cattle must be identified so we can distinguish between domestically acquired and imported infections.

Hydatids a serious risk to human health

Hydatids is widespread in the world and eradication has only been attempted on islands such as Iceland, the Falkland Islands, Cyprus, Tasmania and New Zealand.

The disease is caused by the tapeworm Echinococcus granulosus, which lives in the gut of dogs. Its life cycle also involves an intermediate host, which in the case of New Zealand is mainly sheep and, to a lesser extent, cattle. Pigs and deer are rarely involved. Humans are also a host.

Dogs become infected by eating fertile hydatid cysts in raw offal of sheep (liver or lungs). Sheep become infected by grazing on pasture contaminated with tapeworm eggs passed in dog faeces. Neither dogs nor intermediate hosts develop clinical signs following infection, so it is difficult to determine whether or not live animals are infected.

Humans can also become infected by contact with infected dogs, and control programmes all over the world are implemented on human health grounds. Dogs are most likely to infect their owner or owner’s children. The effect on the health of people can vary from no symptoms to severe illness and death, depending on the number of cysts, their site and size.

But generally the formation of cysts in the body is dangerous and their surgical removal is never straightforward. A major concern during surgery to remove cysts is that brood capsules can float free within the cyst. If a cyst
Decades of hydatids control work pays off

In declaring New Zealand provisionally free from hydatids, MAF Animal Biosecurity Director Dr Belton paid particular tribute to the enormous efforts of the field officers and local authority hydatids control officers who, under the direction of the National Hydatids Council, have worked for 45 years to eradicate hydatids from this country.

Hydatids was probably introduced to New Zealand with sheep imported from the United Kingdom in the 19th century and was first identified in humans in New Zealand in 1862. By the first quarter of the 20th century it had been recognised as a significant human health problem.

The first attempts at control were made in 1938, but efforts lapsed during the war years. In the 1950s, farmers established local, voluntary, hydatids control committees. The passing of the Hydatids Act in 1959 and the setting up of the National Hydatids Council marked the start of the national control programme that continues today. Funding was largely through a tax on dogs that was added to the dog registration fee and most of the field work was carried out at the district council level. The control programme continued under the Dog Control and Hydatids Act 1982 until the Biosecurity Act took over in 1996.

At the beginning of the programme, up to 80 percent of adult sheep carried hydatid cysts and approximately 10 percent of dogs were infected with the tapeworm. Initial control efforts were inspection at slaughter, the regular testing of dogs at dog dosing strips and educating dog owners about the hydatids life cycle and the risks to humans. The mass dog dosing with anthelmintics that started in the 1970s caused a very dramatic decline in incidence. By the mid-1990s the finding of any cyst, fertile or not, was considered an unusual event that warranted property investigation.

Since fertile cysts were found in 1995/96 ruptures, the brood capsules can spread through the body and secondary cysts can grow wherever they come to rest.

Detection often delayed

The only way to detect infection in sheep and cattle is by examination of the offal of slaughtered animals. This occurs in all abattoirs and export meat works in New Zealand, and any sign of hydatid cysts results in laboratory tests being carried out. When infected animals are identified, they are traced back to the property of origin, allowing investigations to be carried out and, if necessary, animal movement controls put in place. Investigations can be difficult because the slow growth of cysts in sheep and cattle means that cysts detected at slaughter may have been the result of infections that occurred many years earlier; in the intervening time the animals may have changed owners several times.

Similarly, most human cases are also detected many years after infection takes place, and they are often found during surgery for other reasons. The incidence in humans peaked in 1946, at slightly over 7 cases per 100,000 but new infections have probably been rare since the 1970s.

In 2001, seven human cases of hydatidosis were notified to the Ministry of Health, in people aged between 44 and 72 years. Several of these people are considered likely to have become infected as children on farms where they grew up.

From three sheep off Arapawa Island, no cysts have been detected in any sheep at post-mortem. From 1996 to 1998, individual cysts in cull cattle were found from one property per year, indicating infection a long time previously. In 1999 and 2000, cysts were detected on one property in cull cows that had been imported from Australia as two year olds in 1994.

However, from 2001 onward no cysts have been found in any animals at slaughter, which each year comprise about 26 million lambs, almost 6 million adult sheep, 3.5 million cattle and about half a million deer.

For more information see:
Incentive scheme extended to chronic wasting disease

MAF has extended the BSE incentive scheme to cover deer and elk dying with clinical signs that could be chronic wasting disease.

Chronic wasting disease of deer and elk (CWD) is a transmissible spongiform encephalopathy (TSE), related to, but distinct from, scrapie and BSE. Like scrapie, but unlike BSE, there is no evidence that it affects human health.

Unfortunately, New Zealand has imported more than one elk from Canadian herds subsequently found to be infected with CWD. Two imported animals have since died. Although veterinarians are confident they did not have the disease, New Zealand has been exposed to CWD and we need to be able to show that we investigate suspicious cases. In order to increase the numbers of brain samples being examined, MAF has extended the BSE incentive scheme to cover deer and elk dying with signs suggestive of CWD.

The incentives are a $100 credit at the submitting veterinarian’s local MAF approved veterinary diagnostic laboratory (Alpha Scientific or Gribbles Veterinary Pathology) plus histopathological examination of the brain tissue.

The incentives are a $100 credit at the submitting veterinarian’s local MAF approved veterinary diagnostic laboratory (Alpha Scientific or Gribbles Veterinary Pathology) plus histopathological examination of the brain tissue. Until relatively recently, CWD appeared to be restricted to two states in the USA. Since then it has been detected in both free-ranging and farmed cervids in nine states, two Canadian provinces and in South Korea, in an elk imported from Canada.

Roger Poland,
Programme Coordinator,
Surveillance,
phone 04 498 9820,
fax 04 474 4133,
polandr@maf.govt.nz

www.maf.govt.nz/chronic-wasting-disease

Hydatids: Countdown to zero

1830s Hydatids probably introduced in imported sheep.

1862 First human case diagnosed, in Dunedin.

1934 Department of Hydatid Research established at Otago Medical School

1938 Dog Registration (Prevention of Disease) Regulations 1938.
  • Arecoline tablets supplied to dog owners at registration

1940 Regulations passed to make feeding of raw offal to dogs illegal

1946 Peak human incidence of 7.2 cases per 100,000 per year.

1958 Up to 80% of sheep and about 10% of dogs (up to 37% of rural dogs) infected.

1959 Hydatids Act 1959:
  • hydatids defined as Echinococcus granulosus (‘true hydatids’) and Taenia hydatigena (‘false hydatids’)
  • National Hydatids Council established
  • illegal to feed raw offal to dogs
  • beginning of national programme of arecoline testing of dogs
  • 440 voluntary farmers’ committees operating throughout the country
  • acceptance by local government to administer the control scheme.

1968 Hydatids Act 1968:
  • Taenia ovis (‘sheep measles’) included in the definition of hydatids.

1972 Introduction of treatment of dogs with niclosamide:
  • 6-weekly for rural dogs
  • 6-monthly for urban dogs.
  Periodic check-testing with arecoline maintained.

1978 Niclosamide replaced by praziquantel for dog dosing. No change to dosing regime.

1979 Post-mortem inspection of sheep by MAF to identify hydatids cases. Stock infection trace back scheme introduced.

1982 Dog Control and Hydatids Act 1982:
  • restriction on feeding untreated sheep and goat meat to dogs
    (for T. ovis – sheep measles).

1983 Meat industry establishes Ovis Committee.

1990 Last true outbreak of E. granulosus, movement control imposed on the infected farms.

1991 National Hydatids Council disbanded, responsibility for eradication passed to MAF.

1993 Biosecurity Act 1993:
  • T. hydatigena (false hydatids) removed from the definition of hydatids
  • end to compulsory dog treatments.
  Movement control that was imposed on farms in 1990 lifted.

1994 Work begins on pest management strategy for E. granulosus (true hydatids).

1995 Fertile E. granulosus cysts found in three sheep from one property on Arapawa Island; movement control imposed on the whole island.

  Removal of restrictions on feeding of sheep and goat meat to dogs.
  Controlled Area notice under Biosecurity Act 1993 for all of New Zealand continuing the restrictions on feeding raw offal (liver and lungs) of ruminants and pigs to dogs.
  MAF decision not to progress pest management strategy, instead using direct Part VI powers of the Biosecurity Act 1993.
  Ovis stock infection traceback system becomes the responsibility of Ovis Management Ltd.

1999 First year that no hydatids cases were detected at slaughter in New Zealand-born animals.

2001 Movement control lifted for Arapawa Island.

2001 No cases of hydatids detected in any animals at slaughter.

2002 MAF declares provisional freedom, but Controlled Area notice under the Biosecurity Act remains in place for all of New Zealand, requiring offal (liver and lungs) of ruminants and pigs to be cooked before it is fed to dogs.
Animals and animal germplasm export changes

When the transitional provisions expire exports of live animals and animal products will have to meet the full requirements of the Animal Products Act 1999 (APA).

Roles

The International Animal Trade section of Animal Biosecurity oversees the system that provides official assurances for the export of live animals and animal germplasm. (Official assurance is the APA term for export certificates).

The section is responsible for negotiations with importing countries, such as agreeing export conditions, developing export certificates and negotiating requests for equivalence. They are then responsible for enabling the provision of official assurances in New Zealand. This includes setting standards and monitoring to ensure the standards are met, approving recognised agencies, accrediting individuals to carry out pre-export activities and approving facilities such as those for semen and embryo collection and pre-export isolation.

All exporters continue to have the same responsibilities as previously. These include selecting animals, arranging for facilities, inspection, testing and arranging transport. All exporters except those exporting their own animals for non-commercial purposes, such as pet owners moving to another country, must also be registered with MAF.

In the new environment, MAF will also approve recognised agencies. Recognised agencies employ accredited persons, who may be staff or contractors. A major part of the approval process will be a quality system that assures the standards will be met.

Accredited persons will inspect and test animals, recommend approval of facilities, collect all the information required by MAF and attest eligibility for export to authorised persons. Accredited persons may, depending on importing country requirements, be able to direct other people to carry out functions on their behalf, for example taking blood or administering vaccine.

Authorised persons will issue official assurances, on behalf of the New Zealand Government, to the government of destination countries. They must be MAF employees.

Quarantine officers may be required to seal cages and record sealing on the official assurance.

The roles of owners and breeders of animals, laboratories approved for export testing and transporters will remain the same. Some additional declarations may be required, e.g. covering transport arrangements, to show that requirements have been met.

Jennie Brunton, Technical Adviser, International Animal Trade, phone 04 474 4116, fax 04 474 4227, bruntonj@maf.govt.nz

www.maf.govt.nz/animal-exports

Become an entomologist and see the world!

As a young teenager “from the deep South” Dave Williams joined the US Navy to see the world. Visiting Wellington in July he mused that a career in science had turned out to be just as good a passport.

Dr Williams was in New Zealand in his capacity as an award-winning entomologist who has studied the red imported fire ant for more than 25 years. He took a break from his work with the US Department of Agriculture in Florida to contribute his expertise to MAF Biosecurity’s Invasive Ant Technical Advisory Group as it reviewed surveillance activities designed to ensure New Zealand can remain free of the dreaded exotic ant.

“Fire ants are a major pest throughout the Southern states of the USA,” he said. “Eradication isn’t an option and there is no silver bullet on the horizon. Not including the cost to biodiversity, this pest costs the US more than US$1 billion every year and is a risk to human health.”

Despite the gloomy forecast, Dr Williams’ fire ant unit was recently granted US$5 million over five years to implement an area-wide, integrated control project for the pest. His past research has lead to the development of most of the commercially available chemical baits used for fire ant control. More recently his research has featured successful work in the introduction of phorid flies as a biological control agent.

Amelia Pascoe, Exotic Animal Response, phone 04 470 2785, fax 04 474 4133, pascoe@maf.govt.nz

www.nps.ars.usda.gov/people/people.htm?personid=6116

Dave Williams.
Surveillance monitors varroa spread

Approximately 500 apiaries in the southern and eastern North Island have been tested for the presence of varroa over the past two months.

The results have confirmed that the movement control line has been largely effective at slowing the spread of varroa. While a small number of apiaries south of the line have become infested, this contrasts with the rapid spread of varroa into almost all hives in the upper North Island. MAF and the National Beekeepers’ Association will use the results of this surveillance to determine movement control policies for the coming season.

Long-term varroa management

The Varroa Planning Group, comprising MAF and representatives from stakeholder industries, met in Wellington on 22 August to work on plans for a long-term varroa management strategy. Work is continuing on a discussion paper for public consultation.

Paul Bolger, Varroa Programme Coordinator, phone 04 474 4144, fax 04 474 4133, bolgerp@maf.govt.nz
www.maf.govt.nz/varroa

A booklet to help dairy goat farmers manage this disease is now available.

Investigation into an outbreak of Mycoplasma mycoides subspecies mycoides (large colony) (MmmLC) in a goat herd in July 2001 revealed that it was likely the disease had been present in New Zealand goats for over a decade.

The technical advisory group that considered response options recommended that information on identification and treatment of the disease should be provided to goat farmers and veterinarians to assist in its long-term management and control.

A booklet has been published and will be distributed through the dairy goat industry. It is designed to help dairy goat farmers recognise the symptoms of M mmLC and what steps they can take to minimise the risk of introducing or spreading the disease.

Another article specifically for veterinarians will be published in Surveillance magazine. It provides information about M mmLC infections and suggests methods for diagnosing and dealing with infections and disease in dairy goat herds.

Both the article and the booklet were produced by MAF in collaboration with Massey University.

Philippa White, MAF Communications Adviser, phone 04 498 9948, fax 04 498 9888, whitep@maf.govt.nz
www.maf.govt.nz/mycoplasma-mycoides
The Samoa Quarantine Improvement Project (SQIP) came to Wellington early in August when two senior officials of Samoa’s Ministry of Agriculture, Fisheries, Forests and Meteorology (MAFFM) took part in an Australian-sponsored study tour.

The three-year project is designed to enable key Samoan decision-makers to develop awareness of agricultural quarantine in international trade systems, build communications networks with counterpart agencies and manage change. MAF Biosecurity’s Border Management staff familiarised their visitors with biosecurity systems and standards in New Zealand. Options for preventing entry of giant African snails into New Zealand from Samoa was a special topic of discussion.

Biosecurity People

Surveillance and Response Team

Jeffrey Stewart has recently joined the Surveillance and Response Team, Animal Biosecurity, as a programme adviser.

The Surveillance and Response team develops and delivers surveillance, exotic animal and exotic animal disease response programmes and the varroa management programme.

Jeffrey will provide administrative and technical support to the team’s programme coordinators. In addition, he will maintain the Ruminant Protein Control Programme Register and is the MAF user for the National Livestock and Apiary databases.

Jeffrey has a New Zealand Certificate of Science in Microbiology and comes to MAF from AgResearch, where he developed and ran immunologically based diagnostic tools.

Border protection fact sheet

Quarantine Officer Neil Harlow holds a new biosecurity fact sheet produced to coincide with July’s Protect New Zealand Week.

Neil’s service guarding the borders dates back to his days with the Ministry of Forestry and he wasn’t too taken aback to find an old photo inside the fact sheet of him at work clearing a consignment of timber.

As it happens, 2002 has been a big year for Neil, who works for MAF Quarantine Service in Christchurch. “I went to Australia to pre-clear a timber mill being imported to New Zealand, and it was my first time out of the country!”

Now available for wider distribution the fact sheet is titled Guarding the Borders to protect New Zealand.

Requests for a copy of the fact sheet can be emailed to:
olsens@maf.govt.nz

Import health standard for fresh table grapes (Vitis vinifera) from Italy

The import health standard for the importation of fresh table grapes from the southern regions of Italy (Apuglia, Basilicata, Calabria and Sicily) was issued on 15 July 2002. The standard prescribes a suite of risk management options (phytosanitary measures) to address the potential risks of introducing regulated (quarantine) pests and diseases. These include:

- registration of vineyards and cold treatment facilities
- routine crop monitoring/surveillance to verify freedom from specified pests
- application of “in–field” pest control activities
- phytosanitary inspection and certification
- post harvest cold disinfestation treatment (conducted prior to export or in-transit) for Mediterranean fruit fly

Justin Downs, National Adviser International Operations (Plant Imports), phone 04 474 4119, fax 04 474 4257, email downsj@maf.govt.nz

www.maf.govt.nz/grape-it.pdf

Update section continues on Page 18
With over 12 billion chickens on the planet today, chickens outnumber humans by almost 2:1 – literally food for thought, as most of them will end up on our plates.

With such great numbers involved, we have to be absolutely sure that the welfare recommendations we make are in the animal’s best interest. A poorly thought out decision affecting the poultry industry can affect millions of individuals in an extremely short period.

Take the ‘battery’ cage for example. Viewed by the public as the most inhumane method of keeping poultry, some governments are now phasing in enriched cages and there is also a move to extensive systems, such as barns and free-range. While these systems offer resources normally unavailable in traditional cages (see ‘enriched cages’ sidebar), the large group size may actually make it worse for the animal. Free-range systems, for example, contain up to 50,000 chickens, whereas battery cages typically contain five birds, far closer to the social group size found naturally.

This is more important than it first appears because of the ‘peck order’. Peck orders reduce aggression by establishing priority of access to resources such as food. From a chicken’s point of view it is easier to establish a peck order in a group of five than 50,000, as you have fewer individuals to remember.

Chickens are thought to have a strong need to form a peck order, so if large group sizes prevent peck order formation, welfare could be compromised. The aim of my PhD thesis was to assess the importance of the peck order to chickens, and to identify the recognition systems they might use in large commercial flocks (see “stripes” sidebar).

The first area I looked at was the peck order itself, and its formation under ideal conditions. Using small groups of unfamiliar chickens in semi-natural conditions, I set up my trusty camcorder and watched, and watched, and watched. No matter how closely I looked, I found no evidence of a peck order. There was almost no aggression between individuals, and no competition for resources, even when these were restricted. Far from showing peck order formation under ideal conditions, I had demonstrated the exact opposite!

I decided next to see if hens would respond differently towards familiar and unfamiliar chickens. You would expect a chicken to be more cautious around an unfamiliar bird, because of the risk of aggression. Remember, social relationships reduce aggression. However, despite exhaustive testing, hens didn’t appear to discriminate between familiar and unfamiliar birds. Once again, aggression was almost absent in this study. And, if there is no risk of aggression, why have a recognition system at all?

Further experiments seemed to support this idea. It appears that modern breeds of chicken, which have been selected for productivity and docility, no longer need the social welfare of this and 12 billion other chickens may not be compromised by alternative systems – but more research is needed.
Continued from Page 12

exhibit the aggression associated with peck order formation. That is not to say that the peck order is no longer important to chickens. By removing aggression, we may have removed the mechanism of peck order formation, but not the desire. Wanting, but not knowing how, to form a peck order, might now chronically stress modern chickens!

In conclusion, although it appears that the social welfare of chickens is unlikely to be compromised in alternative systems, more research is needed before we are absolutely certain that this is the case. Just remember, 12 billion chickens are counting on us to get it right!

Dr Robin Gregory,
phone 021 231 6657,
robbys_g_123@hotmail.com

About the author

Since gaining his D.Phil from Oxford in 2001 under the supervision of Professor Marian Stamp Dawkins, Rob has been involved in project management, and ‘new media’ communications. He is currently in New Zealand on a working holiday, and has been collaborating with MAF, Massey University, and AgResearch on a number of animal welfare projects.

Handbag from hell

A selection of grotesque toad purses were taken from a crewmember of a naval vessel, which recently arrived back in Auckland after an overseas tour. The purses, which were purchased in Vietnam, had been made by eviscerating the toads, tanning the interior surface, and adding a zip across the mouth or body. MAF Quarantine Service Officers at the Port of Auckland discovered that the purses still contained bones and dried flesh, and as treatment was not possible, the items were destroyed.

How chickens earn their stripes

‘Badge of status’ signalling is an alternative to individual recognition, and works well in large groups. Because of this, it is thought to be used in free-range flocks. The system uses a cue, which all animals respond to in the same way. An example would be a sergeant in the Army. Your rank relative to a sergeant determines your behaviour towards all sergeants. In effect, you respond to the number of stripes, not the individual. In chickens, the fleshy comb on the head has been proposed as a badge of status, as its size is determined by testosterone, the hormone responsible for aggression.

Joyce Kent, a Winston Churchill Travelling Fellow for 2002, visited MAF officials in Wellington recently to discuss identification and ‘mutilation’ of livestock and legislation in New Zealand.

Miss Kent, a research fellow with Professor V Molony at the Royal (Dick) School of Veterinary Studies, Edinburgh, investigates methods for the recognition and assessment of pain in animals and practical methods to reduce pain associated with castration and tail docking of sheep. Part of her fellowship included a visit to Purdue University, USA to investigate methods for the identification of pain related to tail docking and other ‘mutilations’ of piglets. Mutilation is the term used in European legislation for practices such as tail docking and castration.

Animal welfare legislation in New Zealand is considerably more advanced than in America. Updating of the codes of recommendations for each species will bring it more in line with legislation in the United Kingdom. This will be particularly so if emphasis is placed on treating animals, when necessary, at an early age, when the amount of tissue to be removed or damaged is lower. Miss Kent was pleased to note the inclination of New Zealand farmers not to fully castrate many of their lambs and had also noted non-castrated beef cattle in the South Island.

During the last six weeks, Miss Kent’s visit has been hosted by Professor David Mellor at the Animal Welfare Science and Bioethics Centre, Massey University. She has also visited other scientists with an interest in animal welfare at AgResearch and HortResearch Institutes in Hamilton, Havelock North, Christchurch and Dunedin as well as visiting a friend helping on a small sheep, cattle and deer farm in the South Island.

In addition, she presented papers on the results of a field trial of more humane methods for the castration and tail docking of housed and hill lambs at the Science to Solution Conference hosted earlier this year by MAF, the National Animal Welfare Advisory Committee and the Australasian Branch of the International Society of Applied Ethology.

Miss Kent also helps and instructs at a small Riding for Disabled Group in Scotland and has taken this opportunity to visit three RDA groups in New Zealand and one in USA to learn of new fund raising and teaching ideas.

Miss Kent, Department of Preclinical Veterinary Sciences, Animal Welfare Research Group, Summerhall, Edinburgh EH9 1QH, Scotland,
phone 0044 131 650 6126,
fax 0044 131 650 6576,
j.e.kent@ed.ac.uk

Biosecurity Issue 38 • 15 September 2002

Joyce Kent: investigating methods for recognising and reducing pain associated with docking and castration.
A two-day conference, Animal Welfare and Behaviour: From Science to Solution, was held in Hamilton in late June. It was jointly sponsored by MAF, the National Animal Welfare Advisory Committee (NAWAC) and the Australasian Branch of the International Society for Applied Ethology (ISAE).

Professor Marian Stamp Dawkins, from the University of Oxford, presented the Ron Kilgour Memorial Lecture in memory of distinguished New Zealand scientist Dr Ron Kilgour, a pioneer of the study of farm animal behaviour.

The conference drew together an impressive range of international and national scientific research and presenters concerned with advancements in farm animal welfare, the behaviour of farm and wild animals, and humane management for wildlife.

It also provided an excellent opportunity to bring key international speakers to New Zealand, such as Professor John McInerney, Director of Agricultural Economics of the University of Exeter, Dr Andrea Gavinelli, Veterinary Administrator with the European Commission in Brussels, Dr John Barnett and Dr Neville Gregory from Australia. Some of the benefits of the operational research funds made available by MAF during the last eight years were also highlighted.

The 10 keynote addresses were future-focused, well presented and challenging. They covered a wide range of topics, from the ethics, economics and productivity of animal welfare, the welfare aspects of trauma caused by firearms and explosives. There were also nine reviews and 18 short papers on a variety of topics including organic livestock farming, wildlife welfare and vertebrate pest control, animal preference testing, and transgenics.

The well-attended conference provided an open and interactive environment for the discussion of complex and topical animal welfare and behaviour issues. It also provided an international perspective and showcased New Zealand’s animal welfare science capability. The future face of animal welfare and behavioural science in New Zealand was also well represented, by a number of post-graduate students.

Keynote speaker Professor McInerney described the conference and his visit to New Zealand as “a really great experience – interesting, challenging, rewarding, and enjoyable beyond expectation. I feel a series of satisfactory glows when I reflect on who I met, the things I learned and the issues I had the opportunity to think about”.

Kate Hellström, Policy Adviser, Animal Welfare Group, phone 04 474 4296, fax 04 498 9888, hellstromk@maf.govt.nz

Biosecurity People

Biosecurity Coordination – Policy Team

Geoff Daniels joined the Biosecurity Coordination – Policy team in July as National Adviser Policy Coordination.

Geoff transferred to the Biosecurity Authority from MAF Legal Services. He first joined MAF as a solicitor in 1994, and was appointed as Assistant Manager Legal Services in 1996. Before coming to MAF, Geoff worked as a solicitor in private practice and also taught law.

Geoff is well versed in the Biosecurity Act, having worked on three Biosecurity Amendment Bills and the legislation underpinning the Bovine Tb Pest Management Strategy. In addition, Geoff has been involved in the defence of judicial review proceedings relating to decisions taken under the Biosecurity Act.

Geoff will be involved in the development and implementation of legislation with particular responsibility for the Bovine Tb Pest Management Strategy, the Cartagena Protocol on Biosafety, and the interface of the Biosecurity Act with the Hazardous Substances and New Organisms Act. He will also be helping develop a training programme for the Biosecurity Act.

Ian Govey joined the Biosecurity Coordination – Policy team in August as National Adviser Policy Coordination.

Ian has a varied background in policy as well as flora and fauna protection. He began his career in the Department of Lands and Survey back in the days of the National Parks and Reserves Division. From there he moved to the Wildlife Service of the Department of Internal Affairs for six years as an advisory officer. He developed and interpreted policy and legislation for a wide range of wildlife protection and control activities.

In 1987 Ian moved to the newly created Department of Conservation and became involved in policy, procedures and coordination of indigenous species protection and management. For a time he was responsible for coordinating and managing New Zealand’s obligations under the Convention on International Trade in Endangered Species. Ian turned to social policy in 1998. Before working again in protecting New Zealand’s biosecurity and biodiversity, he was a senior policy adviser in the Housing New Zealand Corporation.
Tourist fined for smuggling grape wood

A tourist who tried to smuggle two grape budwood cuttings into New Zealand has been convicted and fined $1,050 plus court costs and solicitors’ fees in the Dunedin District Court.

The South African woman arrived at Christchurch airport in July. She told the MAF Quarantine Officer that she had beans and spices, and was directed to the search bench, where her luggage was examined. Despite repeated opportunities to do so, she did not declare the plant material. The cuttings were discovered, individually wrapped in clingfilm and packed in a plastic bag, in a folded cardigan in the centre of a suitcase.

Initially, she denied knowledge of the cuttings, but said later that she had packed them to give to her son-in-law in New Zealand. They were a variety of a South African eating grape called hanepoot.

Reflecting on the seriousness of the offence, Judge Saunders made it clear that if the fines and costs were not paid, the defendant would be arrested on her return to New Zealand.

Passengers who arrive at New Zealand airports from overseas are given a number of opportunities to declare or dispose of risk goods to MAF Quarantine Service, in addition to the written biosecurity declaration forms. Passengers and their luggage are subject to inspection by biosecurity detector dogs trained to find quarantine risk material. Items can be dropped into amnesty bins in the passenger arrival hall. Passengers can ask questions and make verbal declarations to the Risk Assessment Quarantine Officer, when they present their declaration forms, or to any other Quarantine Officer present.

In the year ending June 2002, MAF Quarantine Service intercepted 45,589 passengers attempting to enter New Zealand with undeclared quarantine risk items.

Jacqui Pate, Senior Investigating Solicitor, MAF Special Investigation Group, phone 09 300 1028, fax 09 300 1021, PATEJ@maf.govt.nz

Mail centre x-rays uncover thousands of risk items

The recent discovery of live fruit fly larvae at the International Mail Centre highlights the value of MAF Quarantine Service (MAF QS) x-ray machines.

Larvae of the oriental fruit fly, Bactrocera dorsalis, have been found on two occasions in the last four months in parcels of fruit sent to New Zealand by mail. Both times the fruit was detected when the package was routinely screened using a MAF QS x-ray machine. When the packets were opened and the fruit inspected, the larvae were found.

Reflecting on the seriousness of the offence, Judge Saunders made it clear that if the fines and costs were not paid, the defendant would be arrested on her return to New Zealand.

Passengers who arrive at New Zealand airports from overseas are given a number of opportunities to declare or dispose of risk goods to MAF Quarantine Service, in addition to the written biosecurity declaration forms. Passengers and their luggage are subject to inspection by biosecurity detector dogs trained to find quarantine risk material. Items can be dropped into amnesty bins in the passenger arrival hall. Passengers can ask questions and make verbal declarations to the Risk Assessment Quarantine Officer, when they present their declaration forms, or to any other Quarantine Officer present.

In the year ending June 2002, MAF Quarantine Service intercepted 45,589 passengers attempting to enter New Zealand with undeclared quarantine risk items.

Jacqui Pate, Senior Investigating Solicitor, MAF Special Investigation Group, phone 09 300 1028, fax 09 300 1021, PATEJ@maf.govt.nz

Border Patrol to return

TVNZ has commissioned another series of the top-rating programme Border Patrol. Filming has begun on the new series, which will again focus on the border protection work done by MAF Quarantine Officers and New Zealand Customs Officers. It will screen on TV One next year.

Paul Hallett, National Adviser, MAF Quarantine Service, phone 09 356 9781, fax 09 358 1668, HALLETTP@maf.govt.nz
Routine MAF risk site inspections of the Auckland Airport surrounds have resulted in two new insects (psyllids) being found on Eucalyptus botryoides trees.

The psyllids are native to Australia and have been identified as the lerp-forming species Creiis lituratus and a free living psyllid Aneconeossa communis, found in association with C. lituratus making use of its lerps for shelter and protection (see sidebar). Both psyllids are host specific to Eucalypts.

C. lituratus is a known pest species in Australia where it causes significant damage to some commercial eucalyptus species like E. dunnii. Feeding by these insects kills leaf tissue and severe infestations can result in extensive damage to foliage. An initial follow up survey carried out in early July, to a five kilometre radius around the point of first interception, resulted in the detection of a further six infested trees. From the survey results it appears that the population identified in Auckland represents the remains of a generation grown up over the last summer as most adults had dispersed and only a few early instars were present.

A group of technical experts and forestry industry representatives met in early August and agreed that both species are now too widely dispersed for eradication to be an option. In any case, available insecticide sprays have limited efficacy and are too toxic to be used in urban environments.

On a more positive note, both species seem to have arrived accompanied by parasitoid species that could provide significant biological control.

MAF, after consultation with the advisory group, has opted to:

• get better information on the biology of these two psyllids
• fully identify the parasites so as to get a better idea of likely control they might provide; and
• collect more information on the full range of eucalypt species likely to be affected.

In Australia, the main impact is on E. dunnii, a species that is mainly grown in New Zealand for ornamental purposes, but is closely related to the more widely grown E. nitens.

An information sheet on the pest will be developed by the technical group to alert nurserymen, wood lot owners, local government park staff and the like, on the need to spray eucalypt seedlings, so as to slow the rate of insect spread.

Davor Bejakovich, National Manager Forest Pest Surveillance and Response, Forest Biosecurity, phone 03 325 7132, fax 03 325 7134, bejakovichd@maf.govt.nz

Psyllids uncovered

Psyllids, or jumping plant lice, belong in the family Psyllidae. The immature stages (nymphs) and adults suck the plant juices from their hosts.

Many species (including Creiis) construct protective coverings (lerps) under which the insect feeds. The lerps are largely formed from honeydew which is the sugary fluid that these insects excrete.

Biosecurity People

Forest Biosecurity welcomes new Director

Peter Thomson, formerly a senior manager with Carter Holt Harvey, joined MAF as Director of Forest Biosecurity in August.

Mr Thomson says he is looking forward to developing his areas of expertise, making a real contribution to New Zealand’s biosecurity systems and standards and helping to underpin the long-term well-being of the forestry sector.

“Biosecurity isn’t completely new to me. Being responsible for forest health-related operations and research within Carter Holt Harvey, chairing the New Zealand Forest Health Research Collaborative and being a past member of the Forest Owners’ Association forest health subcommittee have all provided a good perspective on the importance of strong biosecurity and the challenges involved in achieving good outcomes,” he says.

MAF Biosecurity group director Dr Barry O’Neil welcomes Mr Thomson’s extensive forestry background. “This and the added strength of his extensive managerial experience will give our Forest Biosecurity team a real boost,” Dr O’Neil says.

As Director of the Forest Biosecurity group, Mr Thomson has responsibility for the management of significant pests and diseases, and the forest biosecurity aspects of imports and exports of forest products to and from New Zealand.

He has worked in forestry since 1990, working first for NZFP Forests and subsequently Carter Holt Harvey. He holds a Bachelor of Forestry Science from the University of Canterbury as well as an Executive MBA from the University of Waikato.

Peter Thomson, Director Forest Biosecurity, phone 04 498 9639, fax 04 498 9888, thomsonp@maf.govt.nz
MAF Biosecurity Authority is requesting expressions of interest from industry for the provision of a propagability testing service on all types of propagable cut flowers and branches (cut foliage) currently imported into New Zealand.

As a condition of entry into New Zealand all consignments of propagable cut foliage must have been rendered non-propagable before they leave their country of origin. To help verify that the cut foliage have been rendered non-propagable, MAF will take samples of the imported consignments during the biosecurity inspection process at the border. The samples then need to be tested for propagability to ensure the imported cut foliage meet this particular import requirement.

The service provider will need to provide a reliable propagability testing service during normal working hours (Monday to Friday, except public holidays) for cut flowers and branches (foliage) arriving at Auckland Airport. The service provider must also be able to demonstrate an effective, consistent and documented propagability-testing system for the types of cut flowers currently imported into New Zealand. The samples taken by MAF for testing will need to be collected from Auckland Airport within 12 hours of their arrival.

Interested parties are invited to contact Dr Mike Ormsby or Matthew Spence for a copy of the service requirements and contract details.

Dr Michael Ormsby, National Adviser Import Health Standards, Forest Biosecurity, phone 04 474 4100, fax 04 470 2741, forestihs@maf.govt.nz

Matthew Spence, National Adviser International Operations Plants Imports, Plants Biosecurity, phone 04 498 9852, fax 04 474 4257, spencem@maf.govt.nz

www.maf.govt.nz/forest-imports

---

A team from HortResearch, led by Dr Max Suckling, has successfully developed a synthetic pheromone for use in the gum leaf skeletoniser (Uraba lugens) response at Tauranga.

The pheromone development project was initiated in 2001 to provide MAF with an additional effective monitoring tool for detecting any residual population of the gum leaf skeletoniser which may remain in the previously infested areas. The project was supported by MAF Operational Research funds.

Gum leaf skeletoniser larvae were first discovered in June 1997 at the Mt Maunganui golf course, with a further find in Auckland in August 2001. A native to Australia, the caterpillar is a serious defoliator of eucalypts and capable of killing young trees. In New Zealand more than 50,000 hectares of plantation eucalypts and a large number of trees in urban forests and parks could be at risk.

Since the insect's discovery, MAF has carried out an intense eradication programme. Infested trees and surrounding hosts have been treated with insecticide or removed. Results are highly encouraging, with no activity in the Tauranga District since October 2000, or in Auckland from the time of the original find in August 2001.

Further work on the pheromone will be carried out over the next few months to fine-tune the blends, but results to date indicate that the pheromone can be used this summer. A planned trapping programme will run from early January 2003 through to April 2003. If no moths are trapped, or insect life stage detected during the 2002/03 season, it is anticipated that MAF will be able to announce the successful eradication of the gum leaf skeletoniser from New Zealand.

Mark Ross, National Adviser Pest Surveillance and Response, Forest Biosecurity, phone 04 498 9611, fax 04 498 9888, rossm@maf.govt.nz
New import health standards

Feathers for commercial, fly-tying and ornamental purposes from all countries
The wording has been changed in clause 8.2 to clarify the requirements for a zoosanitary certificate. The new IHS is dated 9 July 2002 and replaces the one dated 26 June 2001.

Animals for laboratory purposes from all countries
This wording has been revised to define laboratory animals, to make it clear that pets from the same species are not included. All references to ‘laboratory animals’ have been changed to ‘animals for laboratory purposes’, including the title of the standard and definition of laboratory animal. The new IHS is dated 18 July 2002 and replaces the one dated 15 January 2002.

Horses from Australia
Testing requirements that apply to entire male horses over 12 months (real age), options for animal identification, notification and inspection requirements were clarified in an IHS dated 26 June 2002. This replaced the standard dated 15 December 2001.

In a further new IHS, references to ‘Veterinary Officer’ in the Biosecurity Clearance section (clause 9.1) were reworded, and the term Veterinary Officer has been clarified in the definition of terms section (clause 3). The latest IHS is dated 12 August 2002 and replaces the one dated 26 June 2002.

Goats, sheep, deer, bison, cattle, llamas and alpacas from Australia
The clause referring to anthelmintic treatment has been amended in all these standards to clarify the requirements regarding faecal floatation testing following anthelmintic treatment.

The pre-export quarantine clause in all of these standards except for the llamas and alpacas has been amended to read as follows:
“For the last 14 days of pre-export quarantine, the animals must not be permitted access to pasture and may only be fed feed that is free of contamination with weed seeds.”

The new IHS is dated 4 July 2002 and replaces the ones dated 8 February and 10 February 2002.

Bovine semen from the United Kingdom
Comments are invited on a proposed amendment to the import health standard, to permit semen collected before 1 January 2001 and after 1 January 2002. This change would allow the importation of semen collected between 1 June and 31 December 2000. This follows the report in Veterinary Record of 15 December 2001 (Issue 149, pp 729-743) that the earliest possible date for the introduction of foot-and-mouth infection into the United Kingdom was in late January 2001.

The existing import health standard is dated 10 February 2002.

A culture of care – A guide for people working with animals in research, testing and teaching
This publication has been produced by the National Animal Ethics Advisory Committee for scientists, technicians and teachers who use animals in their work and are responsible for their welfare.

If you would like a copy of this document, contact:

Pam Edwards, Executive Coordinator Animal Welfare, phone 04 474 4129, fax 04 498 9888, animalwelfare@maf.govt.nz

Codes of ethical conduct – approvals, notifications and revocations since the last issue of Biosecurity
All organisations involved in the use of live animals for research, testing or teaching are required to adhere to an approved code of ethical conduct.

Codes of ethical conduct approved: Nil
Amendments to codes of ethical conduct approved: Nil
Notifications to MAF of minor amendments to codes of ethical conduct: Nil
Notifications to MAF of arrangements to use an existing code of ethical conduct
• Bayer New Zealand Ltd (to use PharmVet Solutions’ code)
• Caledonian Holdings Ltd (to use PharmVet Solutions’ code)
• Captec (NZ) (to use PharmVet Solutions’ code)
• Merial New Zealand Ltd (to use PharmVet Solutions’ code)
• Nufarm Ltd (to use PharmVet Solutions’ code)
• Plade Holdings Ltd (to use PharmVet Solutions’ code)

Codes of ethical conduct revoked or arrangements terminated
• Captec (NZ) (to use the Agvet Consultants Ltd code)
• Ciba-Geigy New Zealand Ltd (now Novartis New Zealand Ltd)
Export phytosanitary certification: technical policy directives

The Director MAF Plants Biosecurity has confirmed the following technical policy directives for the implementation of the MAF phytosanitary certification system for plant products:

1. Export of non-inspected plant products
   MAF Plants Biosecurity will not provide en route or post-arrival inspection and certification of horticultural/arable produce that has not undergone inspection in New Zealand.

   Where MAF Plants Biosecurity is informed of produce having been exported to a destination for which inspection for compliance with phytosanitary requirements has not been undertaken for that destination, the importing control authorities will be informed of this. Further, MAF will make it clear to the importing control authorities that MAF is unable to give any form of assurance as to the pest status of the consignment in question.

   Any decision as to what action (e.g. re-ship, inspect/accept, destroy, etc) should be undertaken on arrival is solely that of the importing country.

   Note: MAF will not inspect on arrival (and give biosecurity clearance) non-certified produce exported to New Zealand

   Implementation date: Effective immediately

2. MAF phytosanitary sampling and inspection specifications
   Accredited operators and independent verification agencies (IVAs) providing phytosanitary inspection services on behalf on the Director, in addition to the requirements of sections 4.14 of PEO.OAR, 6.12 of PEO.SOR and section 14.3 of PEO.IAR respectively, shall document sampling procedures that meet the following:
   • The sample size shall be the minimum number of units from which a decision can be made unless, prior to the sample being taken, the exporter requests a larger sample size to be undertaken.

   Note: Once the sample size is selected, the total sample must be inspected (e.g. it is not permissible to stop at, say, the 600 unit sample size limit when an 850 unit sample was originally selected) unless the acceptance number has been exceeded.

   • Where a consignment consists of more than one grower line, each individual grower line must be sampled and inspected for compliance.

   • Where a consignment is made up of more than one plant species, each species is to be sampled and inspected as an individual lot.

   • Where a consignment consists of mixed species and more than one grower line, it is to be inspected for compliance with the importing country's phytosanitary requirements on a grower:species basis. It must not be treated as a single homogenous line.

   Implementation date: 1 July 2002

3. New MAF Plants Biosecurity cost recovery rate: plant exports
   The MAF Biosecurity Plant Exports team has reviewed its cost recovery rate in advance of the 2002-2003 financial year, which began on 1 July 2002. The team is required to cost-recover all work where a direct beneficiary of the work is identified. This relates mostly to Export Certification and Market Access work. The current cost recovery rate of $86.87 +GST per hour has been in place since 1999.

   The cost recovery rate is based directly on costs incurred by the Plant Exports team (including overheads). The review has identified that an increase is required due to some overheads not previously being factored into the cost recovery rate. Consequently, the cost recovery rate for the MAF Biosecurity Plant Exports team will be increased to $99.45+GST per hour.

   Implementation date: 1 July 2002

Peter Johnston, National Adviser Export Operations, Plants Biosecurity, phone 04 474 4130, fax 04 474 4257, johnstonp@maf.govt.nz
New organism records: 29/06/02 – 16/08/02

Biosecurity is about managing risks – protecting the New Zealand environment and economy from exotic pests and diseases. MAF Biosecurity Authority devotes much of its time to ensuring that new organism records come to its attention, to follow up as appropriate. The tables below list new organisms that have become established, new hosts for existing pests and extension to distribution for existing pests. The information was collated by MAF Forest Biosecurity and MAF Plants Biosecurity during 29/06/02 – 16/08/02, and held in the Plant Pest Information Network (PPIN) database. Wherever possible, common names have been included.

### FOREST BIOSECURITY RECORDS 29/06/02 – 16/08/02

Valued new to New Zealand reports

<table>
<thead>
<tr>
<th>Organism</th>
<th>Host</th>
<th>Location</th>
<th>Submitted by</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CRECIS LITURATUS</strong> (jumping plant lice, lerp insects)</td>
<td>Eucalyptus botryoides (southern mahogany)</td>
<td>Auckland</td>
<td>Forest Research</td>
<td>Following consultation with experts and industry representatives MAF will not try to eradicate this pest. Experts advise C. lituratus has a potential to become a serious pest species of Eucalyptus spp. in New Zealand. In Australia the host species are Eucalyptus grandis, E. donii, E. ovata, E. saligna, E. goniocary, E. cardieri, E. botryoides, E. paniculata and E. robusta.</td>
</tr>
<tr>
<td>Anoeconeissa communis (no common name)</td>
<td>Eucalyptus botryoides (southern mahogany)</td>
<td>Auckland</td>
<td>Landcare Research</td>
<td>Following consultation with experts and industry representatives MAF will not try to eradicate this pest. In Australia the host species are Eucalyptus camaldulensis, E. rudis, E. microtheca, E. leucocorydon and several others.</td>
</tr>
</tbody>
</table>

### PLANTS BIOSECURITY RECORDS 29/06/02 – 16/08/02

Validated new to New Zealand reports

<table>
<thead>
<tr>
<th>Organism</th>
<th>Host</th>
<th>Location</th>
<th>Submitted by</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phloeosinus cupressi (cypress bark beetle)</td>
<td>Thuja plicata (false arborvitae, fha, mock thuja)</td>
<td>Mid Canterbury</td>
<td>Forest Research</td>
<td>No other hosts recorded in PPIN.</td>
</tr>
</tbody>
</table>

### ANIMALS BIOSECURITY RECORDS 29/06/02 – 16/08/02

Valued new to New Zealand reports

<table>
<thead>
<tr>
<th>Organism</th>
<th>Host</th>
<th>Location</th>
<th>Submitted by</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fusarium crookwellense (fusarium rot, tuber rot)</td>
<td>Lolium perenne (perennial ryegrass)</td>
<td>Mid Canterbury</td>
<td>NPPRL</td>
<td>Other PPIN hosts include kiwifruit, potato, calla lily, persimmon, tamarillo, and watermelon.</td>
</tr>
<tr>
<td>Mycosphaerella capsellae (pseudocercosporella leaf spot)</td>
<td>Brassica napus sp. <em>sylvestris</em> (wild turnip)</td>
<td>Auckland</td>
<td>NPPRL</td>
<td>No other hosts are recorded in PPIN.</td>
</tr>
<tr>
<td>Potyvirus turnip mosaic virus (turnip mosaic virus)</td>
<td>Crocus sativus (saffron)</td>
<td>North Canterbury</td>
<td>NPPRL</td>
<td>No other hosts are recorded in PPIN.</td>
</tr>
<tr>
<td>Botrytis tulipae (tulip fire)</td>
<td>Crocus sativus (saffron)</td>
<td>North Canterbury</td>
<td>NPPRL</td>
<td>Other PPIN hosts include tulip.</td>
</tr>
<tr>
<td>Stromatina gladioli (dry rot)</td>
<td>Crocus sativus (saffron)</td>
<td>North Canterbury</td>
<td>NPPRL</td>
<td>No other hosts are recorded in PPIN.</td>
</tr>
</tbody>
</table>

Exotic disease and pest emergency hotline: 0800 809 966
Animal welfare complaint hotline: 0800 327 027

www.maf.govt.nz/biosecurity