Focus on ANIMAL WELFARE

Exercise Taurus: Phase II
"Know the enemy" campaign
Dutch elm disease
Biosecurity magazine

Biosecurity is published 6-weekly by Biosecurity New Zealand, with regular input from the Department of Conservation, Ministry of Health, Ministry of Fisheries and regional councils. It is of special interest to all those with a stake in the protection of New Zealand’s economic, environmental and social assets from the dangers posed by pests and diseases. Animal welfare issues are also covered. The articles in this magazine do not necessarily reflect government policy.

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Cover: Animal welfare is the theme for this issue of Biosecurity. Following an editorial by Biosecurity New Zealand’s Director Animal Welfare, David Bayvel, we have feature articles on animal welfare inspectors (p4), codes of welfare (p6), Operation Waiheke (p7), animal welfare publications (p8), the National Animal Welfare Advisory Committee (p8), the role of animal welfare in the biosecurity system (p22), and ethics in animal-based research (p23).
In recent years, media, public, political and scientific interest in animal welfare and ethics has increased significantly. New Zealand is seen internationally to have progressive and contemporary animal welfare legislation, a cohesive national animal welfare infrastructure, a commitment to consultation with all stakeholders, a strong animal welfare science capability and an important enforcement partnership between MAF and the RNZSPCA.

In discharging its enforcement, regulatory, standard-setting and policy development role, MAF has adopted the following animal welfare mission:

- To support the expectations of New Zealand society for the welfare and humane treatment of animals.
- To support the development of animal welfare standards within New Zealand agriculture which will contribute to market success and optimum product positioning for New Zealand animal products and animals.

The recently revised publications Animal Welfare in New Zealand and Animal Welfare Group Profile provide a national overview and describe MAF’s roles and responsibilities.

**Definitions**

It is important to distinguish between the terms animal welfare, animal rights and animal extremism. Animal welfare recognises the legitimate use of animals by society in agriculture, in science and for recreation but places strong concomitant obligations in terms of a duty of care and the prevention of unnecessary and unreasonable pain and distress. The use of the term welfare in the Animal Welfare Act 1999 is, thus, of more than semantic significance.

In contrast, the concept of animal rights challenges man’s “dominion” over animals and would typically oppose the use of animals in livestock agriculture, for scientific purposes and as companion or pet animals. This is very much a minority point of view and is often linked with vegetarian or vegan dietary preferences and anti-science viewpoints. Animal rights advocates however, work within the democratic system and, in recent years, have received strong support from authors such as Peter Singer, Tom Regan and Steven Wise.

Animal extremists, unfortunately, choose overtly criminal tactics in pursuit of their objectives and are typified by groups such as the Animal Liberation Front and Stop Huntingdon Animal Cruelty. These groups inevitably receive appropriate sanctions and individuals in the UK have been jailed for up to 15 years. The UK Government has introduced legislation to specifically address animal extremism.

**Direction**

Over the last 20 years, both livestock agriculture and the scientific community have supported initiatives designed to support the obligations and duty of care which go hand in hand with the responsible use of animals in research, testing and teaching and have supported the introduction of voluntary, and then statutory, welfare codes in relation to the use of animals in agriculture and recreation. These codes, in turn, are increasingly being included in Quality Assurance schemes.

At a global level, the Office Internationale des Epizooties or World Organisation for Animal Health (OIE) has recently assumed an international leadership role in relation to the development of animal welfare guidelines and standards for use in its 167 member countries. In 1999, the Amsterdam Protocol recognised animals as sentient beings within the European Union. The World Society for the Protection of Animals is now seeking to achieve this recognition, at an international political level, via a proposed United Nations Declaration on the Welfare of Animals. Such a Declaration would complement existing international treaties dealing with biodiversity and trade in endangered species.

**Dialogue**

Discussion on animal welfare policy and practice and animal welfare and animal rights will be ongoing, and MAF will continue to interact with all legitimate stakeholders. The National Animal Welfare Advisory Committee and the National Animal Ethics Advisory Committee will continue to play key statutory roles and provide independent advice to Government. Where necessary, animal welfare change management will be science-based and will require validation of the proposed welfare benefits of alternative production or management systems.

Internationally, MAF will continue to interact with key agencies and institutions to consolidate and further develop New Zealand’s reputation and international standing.

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Inspectors on animal welfare front lines

While waiting to meet with inspector Alan Wilson from Biosecurity New Zealand’s Compliance and Enforcement Group (CEG), two calls came through on the Animal Welfare Complaint Hotline. This is how it starts.

The caller is asked a number of questions to determine the urgency of the situation: where is the animal, who owns it, has there been an accident, are there signs of neglect? It is vital that as much information as possible is gathered in order to determine what grade of response is required, and how soon the inspector must get there.

At times it can be a difficult judgement to make, but severe cases involving injury, death, broken limbs, cruelty or abuse must be attended to within 24 hours. Non-life threatening cases such as overcrowding, stock transport problems, or longstanding injury must be seen within seven days. Some of the lower-grade animal welfare complaints – for example a lack of shelter, non-urgent injuries, or sheep needing crutching, shearing or drenching – can be handled over the phone. Occasionally the complaint is transferred to another agency.

Once the call is graded, and depending on its location, it will be allocated to one of the five MAF CEG animal welfare inspectors covering the country or to a local SPCA or veterinarian if appropriate. In the South Island there are two CEG inspectors, their territories divided by the Rangitata River.

Alan is one of three inspectors covering the North Island. His patch covers “all points north” – the upper North Island, the Coromandel, Waikato, and the top of the Bay of Plenty. Most of the inspectors spend about a third of their time on the road.

MAF CEG animal welfare inspectors generally respond to farm situations and complaints involving exotic animals, while the RNZSPCA will deal with companion animals (pets). However, the distinction is not always so clear-cut and both agencies will work to alleviate pain and distress irrespective of the species – the growth in lifestyle block farming is one area where there is cross-over between the two. Over the last year, MAF has responded to nearly 1000 calls and in 2004 the RNZSPCA received 11,401 calls.

Alan has been an animal welfare inspector for MAF for six years, and before this he worked in the same role for the SPCA in both the UK and New Zealand. An early recruit at the age of 24, Alan brings a tremendous amount of experience to his role, and also an appreciation that many of the animal welfare situations he deals with arise from a complexity of circumstances such as drought, bankruptcy, or a harsh winter, rather than deliberate abuse or neglect. He is very aware that in many circumstances he is dealing with people’s livelihoods.

Currently Alan has about 16 cases on his books. Most of these will be dealt with by working directly with the farmer, looking at farm management practices using independent farm consultants, drawing upon the support of the Federated Farmers of New Zealand or other agencies if necessary. The inspector will issue directions, which the farmer must implement. If the farmer fails to do so, an enforcement order will be served. He or she will potentially face prosecution under the Animal Welfare Act, carrying a maximum penalty of six months imprisonment, a $25,000 dollar fine or both. A body corporate can be fined $125,000.

“Sometimes peoples’ lives unravel and they need a hand to get things back on track,” Alan says. “We need to take an educational role as well as an enforcement role. Many farmers have said to me that they hope they never lay eyes on me again, but they also say it’s been worth it!

“However, if there is a clear case of deliberate cruelty we will not hesitate to pursue prosecution as our first option.”

One of the more upsetting cases involved a Northland farmer whose cattle were so emaciated that MAF had no alternative.

By Philippa White
The Society is funded entirely from donations, sponsorship, and bequests. The 98 inspectors are largely made up of a dedicated body of volunteers. A further 40 auxiliary officers work in various animal shelters throughout the country.

RNZSPCA animal welfare inspectors need to complete the MAF-sponsored Certificate in Animal Management held at Unitec in Auckland before they can work in the field.

Robyn McDonald, National Chief Executive with the RNZSPCA, has only been in the job for six months but has a lot of energy and commitment to her new role and has pledged to visit all 53 branches and member societies within the next coming year to assess their needs and capabilities.

She has a vision of a national inspectorate that would effectively operate as a professional body providing mentoring and assistance to inspectors. Robyn is well aware of the difficulties and challenges faced by an organisation dependent upon fundraising and plans to escalate and future-proof the Society’s efforts.

“In many respects our greatest resources are our volunteers and an informed and generous public. Within five years I hope to see the RNZSPCA in a position to provide greater assistance to our regional offices and upgrade and build proper animal shelters where necessary. Without shelters, many of our inspectors are having to house abandoned and sick animals in their own homes.”

She describes animal welfare inspectors as motivated, passionate people who believe that a healthy society looks after its animals.

To report animal welfare complaints call the MAF Animal Welfare Hotline on: 0800 327 027 or phone your local branch of the RNZSPCA.
Codes of welfare are an integral part of the Animal Welfare Act 1999 (the Act). They set out the minimum standards of care for the welfare of animals and also provide guidelines and recommendation for owners and people responsible for animals.

Minimum standards have legal effect, in that failure to meet a minimum standard may be used to support a prosecution for an offence under the Act. Codes of welfare have the status of regulations as provided for in the Regulations (Disallowance) Act 1989.

To date, six codes have been issued by the Minister of Agriculture, which cover layer hens, broiler (meat) chickens, pigs, zoos, circuses and rodeos. The codes ‘last’ for 10 years before they have to be reviewed. Review may occur earlier especially where there are changes in scientific knowledge, technology or current practice, or societal changes or international events.

Anyone may draft a code of welfare

Codes can be drafted by anyone or any organisation. It is the intent of the National Animal Welfare Advisory Committee (NAWAC) that where a specific industry or species of animal is represented by a particular group, then that group should take responsibility for drafting a code. For example, Deer Industry New Zealand drafted the deer code and the Companion Animal Council has drafted a code for cats. Where such a group is not easily recognised – for example, in the case of transportation of animals – and NAWAC believes that a code of welfare is desirable, then it will develop such a code.

But codes of welfare do receive criticism. Critics say they are just cosy arrangements between industry and NAWAC, only containing minimum requirements which are simply conventional practices.

Act requires a duty of care

The purpose of the Act is to reform the legislation relating to the welfare of animals. This often creates a conflict about what this actually means. What the Act requires is that all owners and people in charge of animals have a duty of care to provide for their physical, health and behavioural needs.

These needs are further defined as adequate food and water, adequate shelter, the ability to display natural behaviour, appropriate physical handling and the rapid detection and treatment of disease. The provision of these needs, however, is not absolute and the Act has a provision that the needs are subject to the species, the circumstances, and the environment of the animal. This provision can also create a conflict.

The Act improved the preceding legislation, the Animals Protection Act 1960, in many ways. Codes of welfare, for example, were not previously recognised in law, and earlier codes were only voluntary documents with no legal status. Where current practices are included as minimum standards, these now become a measure of the minimum level of care required to meet the Act. Never before has this been the case. Minimum standards now apply across the board. Everyone must comply but not everyone will – they either have to make improvements or cease ownership. Overall animal welfare, therefore, is improved.

Draft codes subjected to consultation

Once drafted, codes must be submitted to NAWAC for review and ultimate recommendation to the Minister of Agriculture. Draft codes are subjected to two rounds of consultation. The first
The welfare of animals during Operation Waiheke

Although foot and mouth disease (FMD) never eventuated on Waiheke Island during the recent hoax, issues surrounding the welfare of animals and movement restrictions did emerge.

Upon notification of the presence or even suspicion of FMD being present in New Zealand, susceptible animals in the affected zone are placed under a movement control order. Thereafter, no susceptible animals (or their products) are allowed to move off the premises without consent. Equally, if feed is being delivered to a property, this too must be approved with appropriate cleaning and disinfection of the vehicles involved.

The Waiheke Island hoax followed an unusually hot and dry summer, with many farms not being able to produce their usual amount of hay as a supplement to pasture. On Waiheke Island it is usual for farmers to shift stock off the island to graze on the mainland when their own feed supply is inadequate. However, with the stock movement ban in place, this was no longer possible.

The veterinarians who had been inspecting stock on Waiheke Island for signs of FMD noted any welfare concerns. In addition, MAF regional policy adviser John Squire was dispatched to the island to coordinate welfare matters – not only those concerning stock, but also that of their owners who were being placed under additional stress.

John visited the farms to help determine the Waiheke farmers’ need for assistance. With logistical help from staff at the Field Operations Response Team, farm inspections had been completed within 48 hours of John’s arrival. Only two farms were found to be running critically short of feed and both made arrangements to purchase additional hay from nearby local farms which had feed to spare in this short-term period.

From the outset, MAF had been in touch with stakeholder groups including Federated Farmers of New Zealand. Farmers throughout the country contacted Federated Farmers at regional offices or on its national helpline, either with their concerns over the possibility of an FMD outbreak, or offering to donate feed to their counterparts on Waiheke Island and help with mustering. Jane Lodge, Emergency Event Manager for Auckland City Council, was equally as helpful in sourcing back up counselling resources if needed.

The risk of stock feed and labour shortages was greatly reduced following the arrival of the second letter stating the first to be a hoax. Given the revised shorter timeframe then in place for restrictions on stock, Waiheke Island farmers looked to how they would manage their stock over the next two weeks before the expected return to normality.

The Waiheke Island hoax highlighted animal welfare issues surrounding movement bans on livestock. It has also allowed MAF and key stakeholders to assess our capability should another similar event take place on the mainland.

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is targeted to those directly affected by the codes; the second round is a public consultation.

Since minimum standards have legal effect, they must be robust; the Act requires that they must be based on science, good practice and current technology. NAWAC must also take into account public opinion, religious and cultural beliefs, economics and the feasibility and practicality of implementing the standards.

NAWAC is appointed by the Minister of Agriculture to provide him/her with advice on animal welfare matters including the development and recommendation of codes of welfare. Members have expertise and skills in areas including veterinary, animal and agricultural science, the commercial use of animals, ethics, conservation, animal welfare advocacy, and companion animals. There is also a member who represents the public interest. The role of the committee is to provide independent advice on the welfare of all animals except those used in science. (The welfare of animals used in research, testing and teaching is covered by a separate ministerial committee, the National Animal Ethics Advisory Committee, or NAEAC.)

NAWAC will have a new chairperson, from 1 November 2005, when Dr Peter O’Hara takes over from Professor David Mellor, who will be standing down after six years.

Further codes of welfare are in the pipeline, including codes for deer, sea transport, commercial slaughter, painful husbandry procedures (e.g. dehorning and castration), cats, dogs and dairy cattle.

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Update for key animal welfare publications

Two flagship publications of the Biosecurity New Zealand Animal Welfare Group have recently been updated and reissued. Animal Welfare in New Zealand has been revised for a second time, giving an updated overview of New Zealand’s system for setting and enforcing standards for animal welfare. Written for both New Zealand and overseas audiences, the publication puts the system in context with a survey of New Zealand’s animal populations, society’s animal welfare expectations and contemporary animal welfare issues. These range from vertebrate pest control to new technologies to international trade.

Looking at New Zealand’s animal welfare legislation, Animal Welfare in New Zealand backgrounds the Animal Welfare Act 1999 and the central role of codes of welfare in specifying minimum standards and best practice recommendations. The publication also updates and explains the roles of MAF and other key organisations involved with animal welfare.

David Bayvel, Biosecurity New Zealand’s Director of Animal Welfare, says there has been steady demand for Animal Welfare in New Zealand since it was first released in 1993.

“In the 12 years since we first developed this publication we have seen the introduction of the Animal Welfare Act 1999 and the development of codes of welfare as an effective, flexible basis for the definition and enforcement of animal welfare standards,” he says.

“During that time there has been steady evolution in the science surrounding animal welfare, in people’s attitudes to welfare, and in the mix of contemporary animal welfare issues. This latest revision reflects those changes and continues to provide a balanced and informative overview of animal welfare in this country.”

Also revised and updated has been the profile of the Biosecurity New Zealand Animal Welfare Group. The profile introduces the members of the Group and explains their roles. It also focuses on the Group’s key relationships with other organisations in the areas of animal welfare enforcement, research and education.

David says there has been significant progress for the group since 2000, including a close involvement with the OIE’s permanent working group on animal welfare, the addition of several new staff members in key roles, and the issuing of six codes of welfare by the Minister of Agriculture under the Animal Welfare Act.

“When Biosecurity New Zealand was formed last year, animal welfare was confirmed as a core function of the new structure,” David notes. “Our updated profile shows how we relate to other groups and highlights the way our goals and functions support MAF’s animal welfare mission.”

For an online copy of Animal Welfare in New Zealand:

For more information about the Animal Welfare Group and an online copy of the profile document:

To order a hard copy of either publication:
- Animal Welfare Group, Biosecurity New Zealand, PO Box 2526, Wellington, phone 04 474 4100, fax 04 474 4196, animalwelfare@maf.govt.nz

News from the National Animal Welfare Advisory Committee (NAWAC)

NAWAC will shortly release its 2004 annual report. Most of the committee’s work in the past year has been focused on the development of the codes of welfare. Other focuses for discussion have included religious slaughter, livestock export, udder tags for dairy cows, post-weaning multisystemic wasting syndrome of pigs, pelagic shark finning and recreational fishing.

The annual report is available on the Biosecurity New Zealand website (see below). For a more frequent update on NAWAC activities, keep an eye out for the committee newsletter NAWAC News on the website.

The codes of welfare, which NAWAC recommends to the Minister of Agriculture for issue, are all available on the animal welfare website, along with the accompanying reports to the Minister that explain the reasoning behind them. For an update on progress with the codes of welfare, see the Updates section on page 25 of this issue.

NAWAC’s website has recently been updated to include policies and position statements on how it goes about its business. These cover topics such as:
- Taking account of societal expectations, technical viewpoints and public opinion viewpoints
- Justifying animal welfare trade-offs
- The role of science in setting animal welfare standards.

For the NAWAC 2004 annual report:
- www.biosecurity.govt.nz/animal-welfare/nawac/

For codes of welfare and accompanying reports:

For the new NAWAC guideline ‘Assessing the welfare performance of restraining and kill traps’:

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Committee chairpersons announced

The Associate Minister of Agriculture, Hon Damien O'Connor, has announced the appointments of the new chairpersons of the National Animal Welfare Advisory Committee and the National Animal Ethics Advisory Committee. Both appointments take effect on 1 November 2005 for a one-year term.

National Animal Welfare Advisory Committee

Dr Peter O’Hara will take the reins from Professor David Mellor who has chaired NAWAC for six years. Peter’s scientific training is in veterinary science and veterinary pathology. He had a lengthy and notable career with MAF, working for some years in MAF laboratories before moving to head office. Peter was Chief Veterinary Officer (twice) and had a hand in getting the Animal Welfare Act into the statutes. He was Deputy Director-General before he retired in 1998. Since then he has held a number of consultancy roles mainly in research administration. He was the recipient of a 1990 Commemorative Medal.

“The nice thing about retirement is that I can choose to do only interesting things. NAWAC looks like one of those things,” Peter says.

National Animal Ethics Advisory Committee

Mr John R Martin succeeds Mrs Wyn Hoadley as Chairperson. As NAEAC Chairperson, John is also an ex officio member of the National Animal Welfare Advisory Committee. After a distinguished public service career spanning 35 years and a number of departments, John retired from the position of Deputy Director-General (Administrative) with the Department of Health in 1988. Moving to Victoria University of Wellington, he was heavily involved in teaching public administration for a number of years. He remains a Senior Associate and Teaching Fellow in the School of Government and an Honorary Fellow at the University of Otago (Wellington School of Medicine). He was a member of the State Sector Standards Board from 2000 to 2003. John chaired ANZCCART between 1998 and 2003 and looks forward to working again with the animal welfare community. John also received a 1990 Commemorative Medal.

Ruminant protein control programme audits

Programmes to prevent the spread of bovine spongiform encephalopathy (BSE), should a case ever occur in New Zealand, are being subjected to intensive auditing during the latter half of 2005.

Every year, independent auditors evaluate the effectiveness of the Ruminant Protein Control Programmes (RPCP) of the 26 plants approved by MAF to produce feed and feed ingredients for ruminants.

An RPCP is a set of documented procedures outlining measures to prevent feed produced for ruminants being contaminated by ruminant proteins, such as meat and bone meal. This is a requirement under the Biosecurity (Ruminant Protein) Regulations 1999, which were introduced as a risk mitigation strategy to prevent the spread of BSE, or mad cow disease, were ever it to occur here.

Feed containing ingredients derived from BSE-infected animals is the primary way BSE is disseminated to the cattle population. The regulations therefore prohibit the feeding of ruminant protein in any form to ruminant animals. This is a precautionary approach, given that New Zealand is free of BSE.

In addition to the annual evaluation by the independent auditors, MAF also audits these plants from time to time for regulatory compliance.

In the light of the deficiencies reported in other countries with respect to compliances with similar regulations – i.e., preventing the feeding of ruminant protein to ruminants – Biosecurity New Zealand and the New Zealand Food Safety Authority-Verification Agency (NZFSA-VA) have launched from July 2005 an intensive audit of the RPCPs of all approved plants. This audit covers activities identified jointly by Biosecurity New Zealand, NZFSA-VA, and feed industry representatives. It includes both a visual audit onsite and a records check by NZFSA-VA auditors. Targeted feed samples are also being collected and tested for the presence of ruminant protein. Samples testing positive to an ELISA screening test would be subjected to confirmatory tests based on PCR and microscopy.

The audit, which will run through till December 2005, will result in recommendations on the future direction of the regulations.

For more information on transmissible spongiform encephalopathies (TSEs) and RPCP:

- www.biosecurity.govt.nz/tse

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New Zealand’s Biosecurity (Ruminant Protein) Regulations 1999 prohibit the feeding of ruminant protein to ruminant animals.
FIVE overseas observers were invited to review the second phase of the simulation on 12 and 13 April, aimed at testing the National Response Centre (NRC), including its coordination of a domestic and external security system which would be activated during an outbreak of FMD. The NRC was located in the basement of Wellington’s Beehive building, with the fictitious outbreak centred in the Manawatu. (See Biosecurity 60:6 for an article about Part I.)

Phase two of Exercise Taurus helped to develop participants’ understanding of FMD technical response policies and their implications, and clarified the roles and responsibilities of government agencies involved in an FMD response. Biosecurity New Zealand was also able to test the whole-of-government response procedures, in particular livestock movement control, vaccination and carcass disposal.

Observing this part of the exercise were Dr Billy McAteer, a Senior Superintending Veterinarian Inspector in Ireland’s Department of Agriculture; David Mouat, Deputy Head of the Veterinary Exotic Diseases Division within the United Kingdom’s Department for Environment, Food and Rural Affairs (DEFRA) and Will Creswell, a Senior Administrator within DEFRA’s Contingency Planning Division of the State Veterinary Service, all of whom have had first hand experience in containing FMD outbreaks. They were joined by Dr Chris Bunn, Manager, Disease Preparedness and International Office of the Chief Veterinary Officer, within Australia’s Department of Agriculture, Fisheries and Forestry; and Dr Aida Boghossian, a Senior Staff Veterinarian within the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS).

Observers impressed

Overall the observers were impressed by the exercise. Mr Creswell, who, during the 2001 UK foot and mouth outbreak, was involved in establishing the National Disease Control Centre in the HQ of the then Ministry of Agriculture Fisheries and Food in London, said the plan had worked well at a strategic level. “You’ve never had a foot and mouth outbreak, but you’ve got a structure and plan in place that you could pick up and use tomorrow if necessary, and I think it would work.”
Dr Boghossian concurred: “It was a very well-planned exercise. It says a lot that senior managers and leaders cleared their calendars for two whole days to come and play. This shows how seriously this exercise was taken by all concerned. I thought the use of job cards for participants was an excellent idea.”

Dr McAttee had direct experience of containing a FMD outbreak in Ireland in 2001. In Ireland’s first outbreak since 1941, about 53,000 animals – mainly sheep, together with some cattle, deer and goats – had to be slaughtered to prevent the disease spreading. He said the exercise had been very professionally designed and run, but felt that day one was more productive than day two, “possibly as the participants were anticipating the end of the exercise!”

**GETTING TO GRIPS WITH NEW ZEALAND AGRICULTURE**

Mr Mouat said it was interesting for him getting to grips with New Zealand’s agricultural system. “Unlike some countries, New Zealand does not seem to have significant and frequent stock movements around the country. This is a good thing from the point of view of disease control.

> “Here, stock tends to be born and raised on a farm and then only sold off for slaughter. In the UK, stock can be raised to a certain age, then shipped off to a stock market where they might be dispersed to several other farms, fattened a little more, returned to the markets once again, then sent to other farms for fattening and finishing before finally going to slaughter.

> “On the negative side, to control a disease animal population and movement data must be up-to-date; there are no requirements to record movements in New Zealand or any individual animal identification. Also, I’m surprised that you allow swill-feeding of pigs. In the face of an outbreak there would be a swill ban. Are farmers aware of this? And are there contingency plans in place for swill farmers to find alternative sources of feed?”

**INTERNAL COMMUNICATIONS**

Dr Boghossian said one of the few issues of concern was internal communications within the NRC.

> “Who needs to know what and who needs to document it? I didn’t see middle management meeting to brief each other on their various areas, which would need to happen in real life in order to make informed decisions. I don’t think the opportunity was taken to instil the big picture. Sometimes when people were responding to particular situations they weren’t letting other relevant people within the NRC know; in real life this can demand more resources than necessary when dealing with a particular issue.”

Dr Boghossian says the USDA uses liaison people as a link between field operations and the national response centre. “If anyone on the ground has a question that needs to be dealt with higher up, the liaison person ‘bird-dogs’ it up and comes back with an answer.”

> **Foot and mouth disease is not as easy to recognise in sheep.**

From experience, we can think we have all infected animals contained in a certain area, only to later find a farm five miles down the road has infected sheep. I would be very cautious about shrinking zones too rapidly, and certainly not before serological surveillance – especially of sheep – has been completed with satisfactory results.

Mr Creswell says they solved the internal communication problem within DEFRA’s control centres by borrowing an idea from the army called ‘bird table briefings’. During an outbreak response, middle management would give each other progress reports three times a day and remain standing throughout the meeting. “This keeps key people focused; having them remain standing stops them slipping into talking shop for any length of time.”

Both Drs Bunn and McAttee thought there could have been more use of mobile phones, even just using text messages to keep people updated. Commenting on external communications Dr McAttee said that before they were anticipating the disease would spread from the UK and during their FMD outbreak they had held daily national media briefings, and daily meetings for the rural community in the local control area. “But of course you can’t really replicate the huge demand for information that occurs in a real situation in an exercise.”

**REGIONALISING A DISEASE**

On the issue of regionalising the disease so that agricultural trade in other areas could continue, Mr Mouat cautioned that it could be costly to shrink disease-zones too quickly. “Foot and mouth disease is not as easy to recognise in sheep. From experience, we can think we have all infected animals contained in a certain area, only to later find a farm five miles down the road has infected sheep. I would be very cautious about shrinking zones too rapidly, and certainly not before serological surveillance – especially of sheep – has been completed with satisfactory results.”

**THE WAR ROOM**

Several of the observers were critical of the Beehive as a place to run a ‘war room’. Mr Creswell said a control room can rapidly expand from a few dozen to hundreds of people. “In a disease outbreak, things can escalate quite quickly and you need premises which are scalable. I don’t believe the Beehive is that flexible and you would be better off not having the control room there in the first instance. Also, it’s a good thing to have some separation between the control room and any senior managers or even Ministers who might be tempted to micromanage!”

Dr McAttee added, however, that “facilities are what you are used to. The Beehive is better than what we had available in Ireland. And as for communications, in real life there is a tremendous demand for information from Ministers, general public and media. It is vital that such requests are handled in a structured manner. During our FMD outbreak in Ireland we held once-a-day press briefings, which then left us free for the rest of the day to get on with the real job of controlling the disease outbreak.”

Under the Biosecurity Act 1993, losses directly resulting from the use of statutory powers to manage a pest or disease incursion are fully compensated. In the case of an FMD outbreak, this
would cover the value of any stock killed or property destroyed. Compensation is also payable where losses are directly caused by movement controls, but is not generally payable for ‘downstream’ losses indirectly arising from an incursion response. The amount of compensation received should leave the person receiving it no better or worse off than a person who has not been similarly affected. These compensation provisions are intended to encourage the early reporting of suspect incursions, and to provide an incentive for farmers to comply with any response measures.

Dr Bunn thought the compensation was too generous, and believed in a widespread outbreak the payouts would become too great. Mr Mouat also thought New Zealand needed to have a tighter grip on compensation policies, adding that ex gratia payments to cover consequential losses could get out of hand quickly with the current scheme.

Cementing relationships

The observers all agreed that participating in the exercise served to cement relationships between the countries involved. Dr Bunn said the sharing of information alone was of tremendous value. Dr Boghossian added that, “any problems that arose during the exercise were universal. I will be taking back to the States quite a few issues that we can look at to make our own exercises better.”

Mr Mouat said it was important for all countries not to rest on their laurels. “We must continuously review procedures, and keep each other aware of advances in science and other issues which can have an impact on disease control.”

Mr Creswell said that being able to observe the exercise, get ideas for his own role in updating contingency plans and offer his experience, “certainly saves on reinventing the wheel. And if the balloon goes up tomorrow, I’m confident New Zealand will deal with it. You’ve got a good whole-of-government response strategy which appears to work. One of the very positive outcomes of the exercise was that it not only reminded people within MAF of their role during a FMD outbreak, but a lot of other government departments as well.”

www.biosecurity.govt.nz/exercise-taurus
Coinciding with the second phase of Exercise Taurus, MAF took the opportunity to test an air curtain incinerator (ACI) for the disposal of carcasses. This is the first time an incinerator of this type has been tested in New Zealand, and it could be particularly useful in a biosecurity event where pathogens may persist in the soil after burial. The trial took place in the Waikato region (see also Biosecurity 56:14).

The ACI forcefully projected a curtain of air across an open 5.8 m long by 2.3 m wide by 5 m deep pit in which a fire was lit. The products of combustion were mixed with air from above the air curtain to give a smokeless exit gas discharge into the air above the ACI unit. The powerful curtain of air created in this process trapped unburned particles under the curtain in the high temperature zone where temperatures reached as high as 1000°C. The very high temperature ensures the complete destruction of all organisms, pathogenic and otherwise, yielding a sterile ash.

An attractive feature of ACI disposal is that the system is mobile. Taking the unit to the diseased area, as an alternative to transporting the diseased carcasses off a property, reduces the risk of highly contagious diseases spreading.

The ACI was tested on around 100 sheep carcasses and 20 cow carcasses, with a 3:1 ratio of wood to carcasses. In all, about 35 tonnes of dry wood was combusted.

The trial gathered data to assess the potential environmental effects of discharges to air during a carcass disposal operation. Recycling of the combustion air means most particulate materials and volatile organic compounds are destroyed, although a few pollutants may remain. A literature review of air quality considerations has concluded that carbon monoxide, oxides of nitrogen, sulphur dioxide and dioxins are unlikely to be of environmental concern. However, MAF’s trial measured these gases as well as particulates, furans, polycyclic aromatic hydrocarbons and odour. The results of the trial will be published in due course.

The overseas observers took the opportunity to observe the ACI trial. Some of them are already familiar with ACIs as they have been used in the 2001 UK FMD outbreak and the 2004 avian influenza outbreak in Canada.

“I was standing very close to the pit, and the only odour was burning wood,” recalled David Mouat. “It is astounding how quickly they can reduce a carcass to ash. I think they are tremendously effective. However, in part because of their capacity, they are just one of a number of tools that can be utilised to dispose of carcasses. In the UK, we have had BSE in cattle and this means we shall try and use approved incinerators or rendering plants for carcass disposal for older cattle.”

Dr Chris Bunn said the trial went better than he had expected. “They were getting through about six carcasses an hour, reducing them down to nothing but a small pile of ash. Disposal is a big issue. Before technology like this was available, countries like the UK went mainly for burial and have wound up with areas under 100 year watches because the pathogens were never destroyed. There is also rendering, and a new method that was recently trialled in Canada with the avian influenza outbreak is composting. This is apparently working very well, although you couldn’t compost with a disease like anthrax. You’ve got to pick the most appropriate method or methods based on the disease and the number of carcasses you’ve got to dispose of.”

Dr Aida Boghossian was impressed by the lack of smoke and smell. “Although the capacity is not large, we would definitely be able to use several of them in strategic locations through the United States. The residue was a small pile of ash and a very small pile of bone fragments. When you compare that to burial it is certainly a great option for carcass disposal.”

AIR CURTAIN INCINERATOR TRIAL SHOWS PROMISE

Left: The air curtain incinerator trial showed the technique is very effective, but because capacity is limited, this would not provide a complete solution for carcass disposal in a large-scale exotic disease outbreak.
Carcass burial planning formalised

In the event of an exotic disease emergency, the time it took to get resource consent for carcass disposal could jeopardise disease control effort, not to mention cause environmental and health risks. An agreement between Biosecurity New Zealand and local government has cleared the way for fast and decisive action in the event of an emergency.

On 10 June 2005, Barry O’Neil, Assistant Director-General Biosecurity New Zealand, signed the Memorandum of Understanding in Respect of the Burial of Animal Carcasses between Biosecurity New Zealand and Regional councils and Territorial authorities to initiate circulation throughout New Zealand for signature by regional council chief executive officers.1 The MOU establishes a formal relationship between Biosecurity New Zealand and regional councils in relation to planning for and managing the burial of carcasses in the event of an unwanted animal disease outbreak. A joint management committee representing key stakeholders will administer, implement and review the MOU.

The following desired outcomes were agreed:

- The incursion is contained and the unwanted organism eradicated as soon as possible.
- The environmental effects associated with eradication are avoided or mitigated and remedial action to address long-term effects undertaken and minimised.
- Māori cultural, spiritual, social, environmental and economic values are recognised and provided for in all decision-making processes.
- The risks to public health and safety are minimised.
- Burial and associated activities comply to the extent possible with regional and district plans.
- There is effective communication with the public and the media so that they are aware of, and understand, any response actions and the rationale for such actions.

It was recognised that seeking resource consents for the construction of disposal facilities at the time of an outbreak would cause unreasonable delay in burial and increase the disease risk along with other adverse environmental, nuisance and human health effects.

Furthermore, given that the location and scale of outbreaks cannot be known in advance and the probability in any specific area is very low, it is neither practical nor reasonable for Biosecurity New Zealand to seek consents in advance of an animal disease outbreak. Both the Biosecurity Act 1993 and the Resource Management Act 1991 contain emergency provisions to exempt the development and operation of carcass disposal facilities from Part III of the Resource Management Act until such time as the exempted activities are authorised [see (e) below].

Conscious of the regulatory and practical context, the MOU recognises that the best way to secure the desired outcomes will be:

- a For Biosecurity New Zealand to determine, at the time of any outbreak, and taking account of the nature and location of affected properties, whether and when carcasses should be disposed of off-farm2 versus on-farm3 facilities.
- b To develop and jointly agree, specifications for the construction of facilities including aftercare and monitoring for the on- and off-farm burial of carcasses.
- c To construct burial facilities according to the agreed specifications for carcass disposal facilities under urgency as, when, and if, they are needed.
- d To locate burial facilities in areas which offer the best potential to avoid or minimise both short- and long-term adverse environmental effects having regard to physical, geological, hydrological and cultural characteristics.
- e For Biosecurity New Zealand to seek resource consents retrospectively from local authorities for disposal facilities to authorise their construction and ensure the proper management of any ongoing discharges or other adverse effects.

Roles and responsibilities in acting on, and giving effect to, the MOU include:

**Preparedness (contingency planning)**

- identifying unsuitable areas
- developing construction specification for disposal facilities
- local government liaison.

**Response (at time of outbreak)**

- site selection
- advisory – to maximise compliance and minimise adverse effects
- carcass burial operations.

(Note: this process may be refined by agreement following initial pilot work in Environment Waikato and Manawatu Horizons in June-July 2005.)

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1 Although Gisborne District Council supports the intent of the MOU, it will sign a separate letter of understanding that reflects some key changes sought during the negotiation process.
2 Off-farm burial facilities are for carcasses collected from a number of properties. They will be medium to large in scale may be located on either public or private land.
3 On-farm burial facilities are for carcasses generated on the farm on which the disposal facility is located. They will generally be small scale.
It only takes one introduced pest to damage our country and one of us to stop that pest.

That is the main message behind the Know the Enemy campaign launched in June by Associate Biosecurity Minister Marian Hobbs for Biosecurity New Zealand.

The campaign – aimed at all New Zealanders but specifically residents in the country’s main four port areas of Auckland, Tauranga, Wellington and Lyttelton – included residential mail drops, poster and bus stop advertising and radio messages. The goal of the campaign is to increase general public awareness of biosecurity, and encourage greater public participation.

Biosecurity New Zealand’s awareness programme manager, Carolyn Kildare, said the public had a critical role in protecting New Zealand from unwanted pests and diseases. “We have some of the toughest border controls in the world, but the public is the second line of defence.

“People know the danger posed to our country by foreign insects and diseases. But they also need to know how to spot these threats if they appear in the garden at home, or somewhere at work.

“The campaign therefore concentrates on illustrating what to look for – so people will know what the enemy looks like, and what to do if they see them,” Ms Kildare says.

Biosecurity New Zealand is often alerted to major pests by people who have come across them in their own gardens or neighbourhoods, she adds.

The Know the Enemy launch campaign focused on eight pests and diseases including:

- Giant African snail
- Water hyacinth
- Citrus longhorn beetle
- Fall webworm
- Northern Pacific seastar
- Glassy-winged sharpshooter insect
- Avian influenza (bird ‘flu)
- Foot and mouth disease

These pests and diseases were selected because they pose a serious threat, could be identified by an untrained person, and are relatively distinctive. Water hyacinth and fall webworm have been found in New Zealand, while others such as the giant African snail and Northern Pacific seastar would have a significant impact if they became established.

Biosecurity New Zealand will feature new pests and diseases in a continuation of the campaign in September/October and February/March.

Carolyn Kildare, Awareness Programme Manager, Biosecurity New Zealand, phone 04 470 2760, carolyn.kildare@maf.govt.nz
Dutch elm disease caused by the fungus *Ophiostoma novo-ulmi* affects elms and their close relatives from genus *Zelkova*. The disease, capable of killing elms within a few weeks, was first detected in Auckland in 1989. Since then, Biosecurity New Zealand and councils in the affected area (Auckland, Manukau, North Shore and Waitakere Cities and Papakura District) have managed an eradication programme. This article outlines activities over the last season and updates previous stories in *Biosecurity* about the programme.

The Dutch elm disease eradication programme in 2004/2005 consisted of:

- visual surveys for all elms listed in the elm database covering the affected area
- a trapping programme to look for the vector beetles which spread Dutch elm disease
- maintenance of the elm database
- laboratory diagnostic work and removal of diseased trees.

**Surveys uncover 13 diseased trees**

Two visual surveys to look for diseased trees were undertaken in the 2004/05 season. The first survey, initially focusing on areas most likely to contain diseased trees, started in late November 2004. The second survey was completed in March 2005 with follow-up work in April 2005. Additional surveys were conducted in April and May in parts of Manukau and Waitakere.

During the season, 13 elms at nine locations (out of a possible total of 16,550 elms at 10,691 locations) were confirmed diseased. This number is relatively consistent, with an average of 10.5 elms confirmed diseased per season since 2000/01, reflecting an increase from an average of two per year recorded in the 1996 to 1999 period.

**Disease-carrying beetles**

The deployment of traps lured with a vector beetle (*Scolytus multistriatus*) attractant was completed by the beginning of December 2004. The grid which initially consisted of 20 traps was increased to 47 by the end of the trapping season (end of May 2005). Some 3124 beetles were trapped, of which 17 (0.54%) were confirmed positive for carrying the Dutch elm disease fungus spores. These 17 beetles were caught from seven traps. The percentage of positive beetles this season is relatively consistent with a long term average of 0.37% of positive beetles caught over the history of the programme.

**Tree removals**

Removals of diseased elms and those considered to be at high risk of infection incurred significant costs to Biosecurity New Zealand and councils this season. Substantial costs were incurred by Manukau City where the council assisted Biosecurity New Zealand with the removal of all elms from Mellons Bay Gully following repeated detections of the disease on the site. The operation included extensive and complex helicopter removals of over 40 mature elms and adjacent suckering material from the steep gully over a three month period (January – March 2005). Many thanks go to Mellons Bay Primary School for allowing the use of the school ground as a processing yard during multiple removals. Waitakere City Council also incurred significant costs removing elms from McLaren Park.

**Programme review**

During 2004, Biosecurity New Zealand undertook a major review of the Dutch elm disease response programme to assess the feasibility of the eradication and evaluate alternative management options.

Continuation of eradication was identified as the preferred management option. However, it was acknowledged that in order to be successful the existing programme would need substantial enhancement backed by a significant increase in resources. Biosecurity New Zealand submitted a new initiative bid seeking these additional funds as part of the 2005/2006 Budget round, but the request was not successful.

Biosecurity New Zealand has started consulting key stakeholders to determine alternative management options, including immediate, medium and long-term priorities.

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A characteristic symptom on elmwood taken from Mellons Bay Gully. Photo: VIGIL, the SCION Group.
Spray programme effective against Florida red scale

In early 2004, the citrus pest Florida red scale, *Chrysomphalus aonidum*, was detected at Auckland City Council’s Domain Nursery following a chance discovery by a Landcare Research scientist (*Biosecurity* 54:20).

Subsequent investigations also uncovered the scale in both the tropical and temperate houses in the Auckland Domain. The infestation was linked to recent importations of *Dracaena marginata*, a popular indoor plant.

Biosecurity New Zealand instituted containment procedures to prevent further spread of this scale, and conducted further surveys in the areas surrounding the infected site. These measures included a spray programme, developed in consultation with the Auckland City Council (ACC) that targeted both the mobile crawler as well as the immobile stages of the scale. The affected site was placed under a Restricted Place Notice, preventing the removal of risk material without appropriate measures being taken.

**No further scale detected**

The spray programme was designed to minimise any damage to the significant plants in the collection at the Domain Gardens.

Florida red scale on *Dracaena* leaf. Photo: Eric van Essen, Ecolab.

Several cycles of spray treatments were applied in the affected glasshouses, using chemicals with different modes of action and effectively targeting all stages of the scale’s life cycle. Subsequent examinations showed that these treatments were effective with no live scale being detected.

In conjunction with these containment procedures, Biosecurity New Zealand prepared and distributed a fact sheet to members of the Nursery and Garden Industry Association. The fact sheet is also available on the Biosecurity New Zealand website.

This initiative resulted in Florida red scale being detected on several *Dracaena* plants in retail nurseries. These plants were treated with insecticide to kill any scale that were present and then destroyed. Using information supplied by the importer of the plants, AgriQuality Limited staff surveyed identified risk sites for the presence of Florida red scale. One retail site was found to have a few plants infected with Florida red scale and these were also isolated, treated and destroyed.

**Import Health Standard strengthened**

In light of the risk posed by Florida red scale on imported *Dracaena*, Biosecurity New Zealand amended the Nursery Stock Import Health Standard to prevent further incursions of this pest.

The management of the scale infestation was then transferred to the Auckland City Council which has continued the application of systemic insecticides to target any scale that may be living in areas not readily accessible by conventional sprays.

To date, Biosecurity New Zealand’s on-going surveillance at the site has not detected any live scales. Based on these results, Biosecurity New Zealand is confident that Florida red scale will soon be declared eradicated from the site.

**PEOPLE**

José Derraik has joined the Pre-clearance Directorate as a Technical Adviser in Human Health with the Risk Analysis Group, following a brief period with the Border Monitoring Group in Auckland. José is originally from Brazil but has been living in New Zealand for 10 years. He has a background in ecology, in which he acquired a BSc and MSc from the University of Otago. José’s PhD research (with the Wellington School of Medicine and Health Sciences) assessed the threat posed by exotic mosquitoes to public health in New Zealand, while also investigating the ecology of native and exotic species in the Auckland and Wellington regions. José’s role is to ensure that MAF’s newly acquired responsibilities in human health are adequately fulfilled. His publications can be accessed from his website: http://homepages.ihug.co.nz/~jderraik/

Lora Peacock, BSc, MSc (credit), Dip. Teaching, PhD, recently joined the Pre-clearance Directorate as a Technical Adviser (Plant Risk Analysis). Lora has just completed her PhD on the eco-climatic assessment of the potential establishment of exotic insects in New Zealand, under a teaching fellowship at Lincoln University. Lora’s skills are in the application of computer-based models, including artificial neural networks, multivariate statistics and the manipulation and analysis of large climatological, ecological and biological databases. She is also an experienced teacher in ecology at the tertiary level and has taught biology, science, geography and environmental education at the secondary level. Previously she has worked for an NGO in the field of environmental education. Lora will be working on risk analyses for the development of import health standards, and impact assessments for post-clearance activities.
An eradication programme had been implemented following the capture of a gypsy moth for the first time within New Zealand. Gypsy moth is regarded internationally as a high impact pest that causes serious environmental and economic damage throughout many parts of the world. Larval damage severely weakens and reduces tree growth, and hairs on the caterpillars cause skin irritation.

Increased risk from used car imports
The then Ministry of Agriculture and Forestry Biosecurity Authority initiated actions in March 2003, when a male gypsy moth was reported from a trap placed as part of the national gypsy moth trapping programme. This programme was established in 1993 in response to ships and cargo entering from the Russian Far East. More recently, the increase in imported Japanese used cars raised the risk of gypsy moth entering New Zealand. Traps are deployed throughout New Zealand and are focused on ports, and specified high risk places such as devanning (unloading) sites, container yards and imported car storage yards.

The initial response involved a ground search to a radius of 750 metres around the find and placing pheromone (disparlure) traps in a grid pattern out to a 7km radius. Movement controls were placed on vegetation from a defined area. These actions were aimed at delimiting the population and controlling the gypsy moth’s potential spread.

Japan confirmed as source
A trace back on the likely source of entry into New Zealand concluded that the gypsy moth probably originated from Japan, arriving as an egg mass with an imported used car. DNA profiling confirmed the origin of the trapped moth was Japan. It was identified as the

In May 2005, Biosecurity New Zealand declared the Asian gypsy moth eradicated from New Zealand. It has been estimated that gypsy moth would cause economic impacts of up to $80 million/annum if it established in this country.

Aerial spraying is the best way to cover a wide area in a short time. Photo: Waikato Times.

A Technical Advisory Group (TAG) was convened to assist Biosecurity New Zealand by providing scientific and technical advice. On assessment of the evidence, the Technical Advisory Group recommended that Biosecurity New Zealand proceed with eradication of the gypsy moth.

The TAG agreed that other males and females from the same egg mass could have mated and the females laid new egg masses. It was agreed that other moths could have hatched, mated, laid eggs and that a population could well establish and expand from the egg mass. Even based on one male moth being trapped, it was agreed that without treatment there was a strong likelihood of a population of gypsy moth surviving into the second year.

**Spraying, trapping programme**

Aerial spraying with Btk (formulation Foray 48B) at the rate of 5 to 7 litres/hectare, followed by high-density trapping was recommended. Aerial spraying provides the best method to cover a wide area in a short time; it had been used previously over urban environments, and is a proven eradication technique against the gypsy moth.

During the predicted early instar stage of the gypsy moth in New Zealand (October/November) eight aerial applications of Foray 48B were applied at weekly intervals over an area of 1253 hectares in West Hamilton. No significant issues were encountered with the aerial treatment, and fortuitous weather meant that applications were completed within targeted timeframes.

After the completion of aerial treatment the focus of the eradication programme was on monitoring to detect any remnant gypsy moth activity. Additional traps were placed and further ground searches completed. The controlled area was maintained to ensure that untreated vegetation remained within the Hamilton region. No further activity was found.

**Eradication successful**

On 10 May 2005 the TAG met and concluded unanimously that, based on no sign of activity for two generations following aerial treatment, Asian gypsy moth could be declared successfully eradicated from Hamilton. Biosecurity New Zealand agreed with the recommendation, and an official declaration that eradication had been achieved was made by the Minister for Biosecurity on 26 May 2005.

Now the response has been completed, Hamilton will again be included within the national gypsy moth surveillance programme, with traps being placed on an annual basis around predetermined high risk sites between November and April.

Biosecurity New Zealand wishes to thank the many people and organisations who assisted in the successful eradication programme. The cooperation of the Hamilton community and scientific advice provided by the Technical Advisory Group was critical to the successful eradication of the Asian gypsy moth from New Zealand.

Mark Ross, Senior Adviser Surveillance and Incursion Response (Plant Kingdom), Biosecurity New Zealand, phone 04 498 9611, fax 04 470 2741, mark.ross@maf.govt.nz
New Zealand importers bring about 100,000 tonnes of copra meal and palm kernel meal (PKM) into New Zealand each year from the Pacific islands and Southeast Asia. The meals are mainly used as ingredients for adding to supplementary feed for dairy cattle and calves. Federated Farmers of New Zealand has raised the issue of palm kernel meal being able to carry avian influenza, foot and mouth disease and exotic salmonella strains into New Zealand.

Erroneous media reporting in May necessitated Biosecurity New Zealand (BNZ) issuing a media release confirming that the importation of these materials is appropriately managed under import health standard requirements.

In 2004, BNZ implemented a new import health standard to specifically regulate importation of oil-seed meals and eliminate contamination with materials or pests that could introduce biosecurity risks into New Zealand. The import health standard (PIT-MEAL-IMPRT – Importation of Oil Seed Meals for Animal Feed into New Zealand) is on the BNZ website:


BNZ’s basic requirements for the importation of PKM are:

1. The meal must be processed by heat treatment in facilities where only plant-derived meals are produced. During processing, the kernels are heated to about 100°C for 5–10 minutes and this temperature is lethal to pests and diseases.

2. It must be officially examined before export in the country of production and found to be free of contamination with unprocessed material, animal or bird excrement, animal products, and regulated pests (visually detectable).

3. After production, the PKM must immediately be bagged or stored, and be transferred to ships using clean vehicles and machinery in a controlled manner to prevent contamination.

4. After loading into containers or ship holds, it must be fumigated to eliminate insect pests.

5. On arrival in New Zealand, the shipment is representatively inspected and examined at the port or in BNZ-approved transitional facilities for insects and contaminants by MAF Quarantine Service.

If regulated contaminants or regulated pests were detected on arrival in New Zealand, the PKM would not receive biosecurity clearance. BNZ would give the importer the option to treat the PKM (if possible), re-ship it or destroy it at their expense.

BNZ is confident that imported animal feed meals do not include contaminants that could introduce avian influenza, exotic strains of salmonella or foot and mouth disease into New Zealand. The mandatory requirements found in the import health standard manage all biosecurity risks associated with these products.

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**Risk of herbicide-resistant seed establishing extremely low**

Federated Farmers of New Zealand (FFNZ) first raised the issue of herbicide-resistant ryegrass seeds (a non-regulated species, *Lolium rigidum*) being imported in grain consignments in July 2003, and again in May 2005.

Biosecurity New Zealand (BNZ) initially proposed restrictions on non-regulated herbicide-resistant ryegrass seeds but no longer believes this is justified. BNZ’s position is supported by the implementation of an effective operational standard for grain for consumption, feed and processing in August 2003. On 1 January 2004, a new import health standard for grain was issued to be used with the operational standard. Under these standards, about 400,000 tonnes of grain is imported annually into New Zealand for destructive processing (processing which renders seed non-viable) at BNZ-approved facilities. These standards are seen by BNZ and other stakeholders as being very effective in preventing regulated pests (including weed seeds) from establishing in New Zealand. The standards may be viewed at:


**No evidence of variety in New Zealand**

Despite many thousands of tonnes of grain being imported over the last decade from Australia, BNZ has not received any data that the herbicide-resistant variety of *Lolium rigidum* is found anywhere in New Zealand. Ordinary *Lolium rigidum* (non-herbicide resistant) occurs around the greater Auckland region and around Wellington on coastal cliffs and there is no regulation over the movement of the grass in New Zealand. In addition, there are no reports of the grass occurring in the South Island.

On 6 May 2005, FFNZ asked BNZ to assess the viability of *Lolium rigidum* seeds after processing by conducting grow-out tests on *Lolium* seeds that remained whole after processing to determine viability, to identify the *Lolium* species, and resistance to herbicides.

BNZ contacted Dr Graeme Bourdôt (Senior Weed Scientist with AgResearch and Convenor of the New Zealand Herbicide-Resistance Task Force) and formally asked if AgResearch could assist BNZ by conducting a scientific analysis of the situation. Dr Bourdôt advised that herbicide-resistant ryegrass does not occur in New Zealand, and that he would be able to begin a scientific analysis of the likelihood of establishment via the grain importation pathway in mid July 2005.

**Data on whole seeds**

BNZ will continue to gather data on numbers of whole ryegrass seeds that are found in imported grain (both pre-processing and post-processing) but intends to wait for Dr Bourdôt’s availability before making further decisions about the scientific analysis. BNZ still considers that the possibility of low numbers of herbicide-resistant weed seeds entering New Zealand via the imported grain pathway, surviving processing, subsequent feeding to animals, then being distributed in products such as fertiliser and finally establishing self-maintaining populations is an extremely low biosecurity risk.

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**Faxed’ gecko**

Discovering a baby gecko in a fax machine made Anir Lal’s first day on the job with MAF Quarantine Service at Auckland International Airport a memorable one.

Opening a Samoan passenger’s suitcase on, Anir noticed some gecko droppings on a used fax machine. As she lifted the machine, a small egg fell out onto the search bench and broke open. A neonate gecko wriggled out of it. Another egg was later found in the fax machine when it was taken to an inspection room, but there was no sign of any adult geckos.

They were later identified as *Hemidactylus frenatus* (house gecko). These geckos are native to southern and south-east Asia as well as the Indo-Australian archipelago. Due to freight movement, they are now widely established in many other tropical areas, including the Pacific region. Populations easily establish in homes and commercial buildings. Geckos lay their eggs in dark crevices, often in office equipment, as was the case here.

(Photo: Greg Calvert, James Cook University, Queensland.)
How animal welfare fits into the biosecurity mix

For most people, the term ‘biosecurity’ conjures up images of unwanted pests and diseases, and the ongoing battle to stop them from crossing our borders. So where does animal welfare – a part of Biosecurity New Zealand’s core activities – fit into the biosecurity mix?

That’s a fair question, says David Bayvel, Director Animal Welfare with Biosecurity New Zealand, but one that is straightforward to answer.

“Many of the disciplines and skills that make our biosecurity system so secure are equally relevant to animal welfare,” he explains. “There are strong synergies between animal welfare and other areas of biosecurity.”

“The specialised veterinary expertise within Biosecurity New Zealand, for example, contributes to animal health and welfare outcomes as well as disease surveillance and containment activities.”

In addition, there is a strong animal welfare component to many of the standards involving animal biosecurity, David adds. “Animal-based research, containment standards for quarantine and vertebrate pest control are just some of the biosecurity activities with animal welfare components.”

The requirement for transparent, scientifically justifiable biosecurity standards also applies to the standards within codes of welfare, he says.

“In all cases we use a science-based risk management approach, engage with a wide range of stakeholders and strive to achieve a balance between economic, environmental and social or ethical considerations.”

He says high standards of animal biosecurity and animal welfare each contribute to New Zealand’s market success for livestock products – a common strategic goal.

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Management of bee pest transferred to Varroa Agency Inc.

From 1 July 2005, responsibility for keeping the varroa bee mite out of the South Island has transferred from Biosecurity New Zealand (BNZ) to the Varroa Agency Incorporated (VAI), a management agency made up of South Island Councils and beekeeping organisations. If the mite is ever detected in the South Island, BNZ would manage any eradication programme.

Varroa was first detected in Auckland in April 2000, and has now spread throughout the North Island. To date, movement controls on bees and bee products have kept the bee-killing mite out of the South Island. As part of the latest change, revised controls on transport of some materials to the South Island will be implemented.

BNZ Senior Policy Analyst Paul Bolger says the handover means BNZ’s existing Controlled Area Notice is withdrawn from 30 June 2005. This removed all internal movement controls on varroa in the North Island.

“A replacement notice issued by the VAI has taken effect immediately. Like previous notices, the new Controlled Area Notice places controls on moving risk goods to the South Island and Stewart Island.”

Paul Bolger says the range of restricted goods will be extended from varroa, bees, bulk bee products, beekeeping vehicles and used beekeeping equipment to also include bulk wine grapes, unprocessed logs, and buildings. Restricted goods can not be moved without a permit.

The handover of varroa management to the VAI follows similar existing National Pest Management Strategies for bovine tuberculosis and American foulbrood disease of bees. These strategies give industry and local government bodies control over disease management. The Varroa Strategy aims to keep the South Island varroa free through movement controls, education and surveillance.

The hand-over of varroa management to the VAI follows completion of a National Pest Management Strategy for varroa in February 2005, itself the result of four years’ work by BNZ, regional councils and industry groups. The VAI is the body responsible for managing the strategy.

“The surveillance programme is designed to detect varroa as soon as possible in the South Island while there is still potential for it to be eradicated,” Paul Bolger says.

“Any eradication attempt would be managed by BNZ.”

The $720,000 annual cost of the strategy will be funded by South Island councils and the beekeeping industry.

www.biosecurity.govt.nz/varroa

Pig feed regulations tightened to manage disease risk

New pig feeding regulations aim to mitigate the risk of foot and mouth disease and control the spread of other diseases, like swine vesicular disease and classical swine fever.

From 7 July 2005, all food containing meat that is fed to pigs must be heated to 100ºC for one hour.

The easiest way to comply with the regulations is to boil meat and food waste containing meat for one hour, stirring frequently.

Items that do not have to be heated to 100ºC before consumption include:

- commercially manufactured pig feed
- food waste that does not contain meat and has not been in contact with meat
- eggs, milk or rendered material.

Although the risk of foot and mouth disease, or other serious exotic diseases, infecting New Zealand livestock through feeding of food wastes to pigs is low, the consequences to farmers and the whole economy would be great.

Under the Biosecurity Act 1993, individuals found feeding non-compliant food to pigs can be fined a maximum of $5,000. Corporations in breach of the new regulations face a $15,000 fine.

For the Biosecurity (Meat and Food Waste for Pigs) Regulations 2005:

www.knowledge-basket.co.nz/tkbpg/welcome.html
New report on ethics of animal-based research

The United Kingdom’s Nuffield Council on Bioethics1 spent two years developing its report on the ethics of research involving animals. The result has been welcomed in the United Kingdom by stakeholders representing views across the entire spectrum of the animal use debate.

The report, published in May, aims to clarify the ethical issues raised by animal-based research and to establish a framework for further debate. It examines animal use in different areas of scientific research (including basic biological research, the study of human disease, genetically modified (GM) animals as disease models, pharmaceutical research and toxicity studies). Alternatives to animal models are discussed, and the legal, ethical and policy issues associated with scientific procedures on animals are considered.

The report concludes with a series of recommendations for the formulation of policy and practice. Some of these are peculiar to the United Kingdom’s research environment and its position as part of the European Union. Others, however, address issues also facing New Zealand.

Selected recommendations relevant to New Zealand.

• Clarification of animal use statistics: The report emphasises the need to clarify statistics on animal use and suffering2. One suggestion is to include case studies of procedures under each category of suffering. Authorities in both the United Kingdom and New Zealand are currently considering how animal use statistics could be clarified.

• Interaction between the scientific community and the public: The report encourages researchers to take a proactive approach to being open about their work and its anticipated benefits, in order to improve and sustain public trust. In the United Kingdom, anonymised abstracts of research projects are published on the Home Office website, although it is not compulsory for researchers to provide these. The report also recommends research on public attitudes to animal use in research, and the provision of balanced educational materials about animal use for young people.

• Cost/benefit assessment: The report endorses an earlier recommendation by the United Kingdom’s Animal Procedures Committee (APC), that an easy-to-use, comprehensive list of factors to be taken into account in assessing costs, benefits and scientific validity be compiled. The list could guide researchers and others engaged in ethical review, and should be made publicly available.

• Three Rs: The report makes several recommendations for further implementing the principles of refinement, reduction and replacement of the use of animals in research, including that the APC be asked to conduct an analysis of alleged scientific barriers to replacing animals with non-animal alternatives. Targets, or ‘markers of reduction’ in the use of animals were also proposed, along with the possibility of appointing a Chair of the Three Rs. Before such a proposal could be developed, however, the relationship of the Chair to existing bodies such as the United Kingdom government-funded National Centre for the Three Rs would need to be clarified, to avoid duplication of effort.

• Duplication of research: The importance of avoiding duplication (rather than justified replication) of animal-based research was flagged for further consideration.

• GM animals: Specific welfare problems for GM or cloned animals could arise and the importance of a systematic approach to documenting these was emphasised. The report suggests that for GM animals, databases of phenotypic information relevant to scientific objectives and associated welfare implications should be established and made publicly available. Editors of scientific journals could support the collection of this information by requiring the submission of phenotype and associated data about welfare to databases as a condition of acceptance of submitted papers.

For copies of the full report:

www.nuffieldbioethics.org

Joanna Tuckwell, Policy Adviser, Animal Welfare Group

Joanna is currently on secondment to the Secretariat of the Animal Procedures Committee in London. She returns to Wellington later this month.

1 The Nuffield Council on Bioethics is an essentially independent group whose terms of reference include identifying, defining, examining and reporting on ethical questions raised by recent advances in biological and medical research, with a view to promoting public understanding and discussion.

2 An interesting feature of the report is its detailed description of the ways in which animals are used in various types of research.

Northland poultry farms found free of chicken virus

Two Northland poultry farms suspected of having Infectious Bursal Disease (IBD) have been found free of the virus after extensive testing.

IBD carries no human health risk, but attacks the immune system of young chickens, leaving them more susceptible to other diseases. Virulent IBD strains can cause high levels of mortality.

Biosecurity New Zealand was alerted after signs of the disease were detected by a poultry industry surveillance programme. A three-month investigation that involved extensive on farm testing, including the use of sentinel birds and laboratory analysis, has satisfied Biosecurity New Zealand that both farms were free of IBD.

Egg Producers Federation and Poultry Industry Association Executive Director Michael Brooks says the absence of IBD was significant, and an important result for the New Zealand poultry industry.

“It highlights the importance of our surveillance programme to the New Zealand poultry industry, and proves its effectiveness,” Mr Brooks says. “We have always been confident that our regular and routine surveillance of poultry farm stock would alert us to any possible IBD presence, and this incident has proved the value of the surveillance scheme.

“Proactive steps taken by the poultry industry included movement restrictions for birds and other potential risk items, to ensure the protection of other poultry farms,” Mr Brooks says.
Amended import health standards

**Dairy products for human consumption from the Republic of Korea**

This standard was first issued on 17 May 2005. Since then Clause 3 of the Veterinary Certificate has been amended to include the European Community. This change allows milk and milk products from member countries to be used in the manufacturing process.

The new standard is dated 13 June 2005.

**Dairy products for human consumption into New Zealand from Australia**

The Eligibility clause 7.4.1 has been amended as the Australian Quarantine Inspection Service (AQIS) does not release the quarantine clearance requested in this clause. The amended clause (7.1.2) now reads:

originated from a 'Specified country' (refer to Definitions of Terms, Section 3) and be accompanied by a letter from the Australian importer/exporter identifying the product, the country of origin and when the product was given quarantine clearance into Australia.

A clause has been added to the documentation section to explain the eligibility requirement:

8.4 Certification in accordance with PART D: ZOOSANITARY CERTIFICATION is not required in the case of dairy products originating from Specified Countries (See Definitions of Terms, Section 3) imported into New Zealand via Australia. In this case, the consignment is eligible for entry into New Zealand provided that the Inspector is satisfied that the products have been shipped to New Zealand directly from Australia. The consignment must be accompanied by a letter from the Australian importer/exporter identifying the product, the country of origin and when the product was given quarantine clearance into Australia. The rationale for this requirement is that AQIS retain the original health certification when products are given quarantine clearance into Australia.

The standard is now dated 17 May 2005 and replaces that dated 6 October 2004.

**MAF Biosecurity New Zealand Standard 155.02.05 Importation of Seed for Sowing**

This standard now includes a new import schedule for Zea seeds.

The new standard is dated 25 May 2005.

**MAF Biosecurity New Zealand Standard 155.02.06 Importation of Nursery Stock**

This standard, dated 17 June 2005, has been reissued with the following amendments:

- remove the mandatory insecticide/miticide treatment requirement for Lilium bulbs produced in accordance with the requirements of the BKD ALG bulb certification scheme from the Netherlands. MAF has recently received new information from the Dutch plant protection organisation that demonstrates none of the regulated insects/mites on Lilium bulbs are present in the Netherlands.
- clarify that an import permit is not required for tissue culture unless specified in the schedule of special conditions
- modify the treatment rate for the miticide Abamectin

**Importation of Agouti into New Zealand from Australia**

Dasyprocta leporina has been added to this standard as an ERMA approved-synonym of the original species name, and minor editorial changes have been made to the standard.


**Dogs and cats from non-quarantine countries**

From 1 July 2005, a permit to import dogs and cats into New Zealand is no longer required, as domestic pets are not directed to quarantine on arrival. This affects the following import health standards:

- **Importation of dogs and cats into New Zealand from the United Kingdom, dated 1 July 2005**
  - replaces that dated 1 March 2005
- **Importation of dogs and cats into New Zealand from Sweden, dated 1 July 2005**
  - replaces that dated 12 May 2003
- **Importation of dogs and cats into New Zealand from Norway, dated 1 July 2005**
  - replaces that dated 12 May 2003
- **Importation of dogs and cats into New Zealand from Singapore, dated 1 July 2005**
  - replaces that dated 12 May 2003
- **Importation of dogs and cats into New Zealand from Hawaii, dated 1 July 2005**
  - replaces that dated 1 May 2003
- **Importation of dogs and cats into New Zealand from The Republic of Ireland, dated 1 July 2005**
  - replaces that dated 12 May 2003

**Seeds for processing and consumption (grain)**

On 16 May 2005, MAF Biosecurity New Zealand issued MAF Biosecurity Authority Standard **PIT-GFP-PHR: Grain for Processing, Plant Health Requirements** under a new name:

**BNZ-GCFP-PHR – Biosecurity New Zealand (Importation of) Grains and Seeds for Consumption, Feed or Processing – Plant Health Requirements.**

The new import health standard (**BNZ-GCFP-PHR**) includes amended schedules for Helianthus (sunflower), Panicum (millet/panic grasses), Phaseolus (green beans/other beans), Pisum (pea) and Vicia (broad/faba beans) spp. seeds and other generic amendments. Recent requests from importers and the increased use of irradiation as a devitalisation treatment for grain or seeds for animal feed has led to the inclusion of options in the import health standard for offshore irradiation treatment and irradiation in transitional facilities in New Zealand.

MAF requires that **BNZ-GCFP-PHR** is used in conjunction with the operational information that is held in MAF Operational Standard – **PIT-GFP-ISR**

Both standards may be found at:


Dr Dave Nendick,
Senior Adviser – Operational Standards,
Biosecurity New Zealand, PO Box 2526, Wellington, New Zealand, phone 04 474 4200, fax 04 474 4132,
dave.nendick@maf.govt.nz
Biosecurity email notification

Biosecurity New Zealand has a generic email notification link that enables us to send out information (e.g. consultation and issue of import health standards) to multiple subscribers. Although these details are also on our website, this system provides prompt notification about consultation and how people can make submissions on issues that affect them. The email list has been categorised so that only information pertinent to an area of interest is sent out. These are broad categories, however, and may include information that is not applicable. The categories are animal exports, animal imports, animal welfare, border management, forest product exports, forest product imports, plant exports and plant imports.

Although in the past email notifications have been sent to specific groups within these categories, this method of notice has ceased from 1 July 2005. Those who receive notifications from both will not need to re-subscribe.

To subscribe to the email send-outs please go to the following web address and click on ‘subscribe’. Indicate which categories you would like to be informed about and then submit.

- www.biosecurity.govt.nz/imports/
- Notifications will still be published in Biosecurity.
- Wendy Long,
  Biosecurity New Zealand,
  PO Box 2526, Wellington, New Zealand,
  fax 04 474 4132,
  imports@maf.govt.nz

Draft guides for the export of equine semen

The following export guides have been developed by Biosecurity New Zealand and are available for public consultation:

- Guide on Export Information for Equine Semen Collection Centre
- Veterinarians and Guide for Approval of Semen Collection Centres
- Exporting Equine Semen From New Zealand dated 25 May 2005 and 17 May 2005 respectively.

These are drafts of new guides for the collection of equine semen for export.

Copies of the draft guides are available at:


Comments on this draft document should be forwarded by close of business on Wednesday, 17 August 2005. MAF welcomes submissions and encourages respondents to forward comments electronically to the email address below. However, should you wish to forward submissions in writing, please send them to:

- Dr Grant Clarke,
  Biosecurity New Zealand,
  PO Box 2526, Wellington,
  fax 04 498 9888,
  grant.clarke@maf.govt.nz

Draft code of welfare for painful husbandry procedures

The National Animal Welfare Advisory Committee (NAWAC) advises that a code of welfare for painful husbandry procedures has been drafted. The draft code was released for public consultation on 9 July 2005 and the closing date for submissions is 19 August 2005.

The draft code is available on the MAF Biosecurity New Zealand Animal Welfare Group website:

- www.biosecurity.govt.nz/animal-welfare

It may also be inspected at MAF, ASB House, 101-103 The Terrace, Wellington. Any person may make submissions on the draft code in writing to NAWAC at the following address:

- Animal Welfare Group,
  Biosecurity New Zealand, PO Box 2526, Wellington

Or by email to: 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
  • Valley Animal Research Centre

- Transfers of code of ethical conduct approved: Nil
- Code holder name changes: Nil
- Amendments to codes of ethical conduct approved: Nil
- Notifications to MAF of minor amendments to codes of ethical conduct
  • Genesis Research and Development Corporation Ltd

- Notifications to MAF of arrangements to use an existing code of ethical conduct: Nil

- Codes of ethical conduct revoked or expired or arrangements terminated: Nil

- Approvals by the Director-General of MAF for the use of non-human hominids: Nil

- Approvals by the Minister of Agriculture of research or testing in the national interest: Nil

- Linda Carsons, Senior Policy Adviser, Animal Welfare,
  phone 04 470 2746, fax 04 474 4196, linda.carsons@maf.govt.nz

Codes of welfare – update on development, issue, implementation and consultation since 1 July 2005

- Codes of welfare issued: Nil

- Codes of welfare coming into force/implemented: Nil

- Consultation on codes of welfare
  • On-farm husbandry procedures (including castration, tail docking, disbudding and dehorning of livestock) – now ‘Painful husbandry procedures’. Public consultation commenced 9 July 2005 and closes 19 August.
  • Commercial slaughter code: public consultation completed. Final code to be presented to Minister of Agriculture fourth quarter 2005
  • Deer code: public consultation closed 28 February 2005
  • Cat code: public consultation closed 16 May 2005

- Codes of welfare under development
  • Dogs
  • Dairy cattle
  • Transport of animals by sea
  • Horses.

- Wayne Ricketts, Programme Manager Animal Welfare,
  phone 04 474 4276, fax 04 474 4196, wayne.ricketts@maf.govt.nz
## New host 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>Coccus hesperidum</strong> (Brown soft scale)</td>
<td>Cedrus atlantica (Atlas cedar)</td>
<td>Northland</td>
<td>Forest Research (high risk site surveillance)</td>
<td>Other PPIN hosts include pumpkin, navel orange, lemon, mandarin, tangelo, grapefruit, grape, apricot, Trifoliate rootstock, kiwifruit, avocado, dendraobium orchid, moth orchid, cherry laurel, citron, cymbidium orchid, Japanese plum, nectarine, sweet cherry, feijoa, Chinese banyan and radiata pine.</td>
</tr>
<tr>
<td><strong>Trichocladium basicola</strong> (black root rot, Thielaviopsis root rot)</td>
<td>Pseudotsuga menziesii (Douglas fir)</td>
<td>Nelson</td>
<td>Forest Research (special survey)</td>
<td>This fungus has a very wide host range.</td>
</tr>
<tr>
<td><strong>Uresiphita polygonalis maorialis</strong> (kowhai moth)</td>
<td>Virgilia divaricata (virgilia)</td>
<td>Waikato</td>
<td>Forest Research (high risk site surveillance)</td>
<td>This native species has been recorded from quite a range of leguminous hosts.</td>
</tr>
<tr>
<td><strong>Phytophthora cinnamomi</strong> (black root rot)</td>
<td>Abies pinsapo (Spanish fir)</td>
<td>Nelson</td>
<td>Forest Research (special survey)</td>
<td>This fungus has a very wide host range.</td>
</tr>
<tr>
<td><strong>Pleospora tarda</strong> (sooty mould)</td>
<td>Ribes nigrum (black currant)</td>
<td>Mid Canterbury</td>
<td>IDC (General Surveillance)</td>
<td>Other PPIN hosts include cherimoya, asparagus, silver beet, Chinese cabbage, Brussels sprout, broccoli, chicory, daphne (winter daphne), Paterson’s curse, echium, feijoa, Casablanca lily (oriental hybrid lily), Limonium, tomato, olive, peony rose, black passionfruit, parsley, nectarine, spinach, verbena and broad bean.</td>
</tr>
<tr>
<td><strong>Epicoccum purpurascens</strong> (sooty mould)</td>
<td>Ribes nigrum (black currant)</td>
<td>Mid Canterbury</td>
<td>IDC (General Surveillance)</td>
<td>This common fungus has a very wide host range.</td>
</tr>
<tr>
<td><strong>Microsphaeropsis olivea</strong> (no common name)</td>
<td>Vaccinium sp. (blueberry)</td>
<td>Northland</td>
<td>IDC (General Surveillance)</td>
<td>Other PPIN hosts include Prunus spp., grape and dracaena.</td>
</tr>
<tr>
<td><strong>Erwinia rhapontici</strong> (cereal pink grain, wheat pink seed, rhubarb crown rot)</td>
<td>Trifolium repens (white clover)</td>
<td>Mid Canterbury</td>
<td>IDC (General Surveillance)</td>
<td>Other PPIN hosts include Narcissus.</td>
</tr>
<tr>
<td><strong>Gibberella baccata</strong> (false coral spot, stem dieback)</td>
<td>Sorbus aucuparia (rowan)</td>
<td>Mid Canterbury</td>
<td>IDC (General Surveillance)</td>
<td>This common fungus has a very wide host range.</td>
</tr>
<tr>
<td><strong>Gibberella avenacea</strong> (root rot)</td>
<td>Yucca sp. (yucca)</td>
<td>Northland</td>
<td>IDC (General Surveillance)</td>
<td>This common fungus has a very wide host range.</td>
</tr>
<tr>
<td><strong>Trichoderma sp.</strong> (no common name)</td>
<td>Wodyetia bifurcata (foxtail palm)</td>
<td>Northland</td>
<td>IDC (General Surveillance)</td>
<td>Other PPIN hosts include avocado, runner bean, French bean, garden pea, Prunus spp., wheat and broad bean.</td>
</tr>
<tr>
<td><strong>Fusarium sp.</strong> (fusarium root rot, fusarium rot)</td>
<td>Wodyetia bifurcata (foxtail palm)</td>
<td>Northland</td>
<td>IDC (General Surveillance)</td>
<td>Other PPIN hosts include kiwifruit, bromeliad, garlic, capsicum, yam, zucchini, carrot, Eucalyptus spp., Hypericum, perennial ryegrass, Narcissus, olive, black passionfruit, garden pea, pear, tulip, blueberry, broad bean, and maize.</td>
</tr>
<tr>
<td><strong>Botryosphaeria obtusa</strong> (black rot, botryosphaeria stem canker)</td>
<td>Cotoneaster glaucaphyllus (cotoneaster)</td>
<td>Bay of Plenty</td>
<td>IDC (General Surveillance)</td>
<td>Other PPIN hosts include avocado, grape, apple, New Zealand grapefruit, pear, lemon, kiwifruit, Prunus spp., feijoa, black currant, holly oak and broom.</td>
</tr>
<tr>
<td><strong>Microdochium dimerum</strong> (fungus)</td>
<td>Yucca elephantipes (yucca)</td>
<td>Auckland</td>
<td>IDC (General Surveillance)</td>
<td>No other hosts recorded in PPIN.</td>
</tr>
<tr>
<td>Organism</td>
<td>Host</td>
<td>Location</td>
<td>Submitted by</td>
<td>Comment</td>
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</tr>
<tr>
<td>Acrocercops laciniella (black butt leaf miner)</td>
<td>Eucalyptus nitens</td>
<td>Marlborough</td>
<td>Forest Research (exotic forest survey – FOA)</td>
<td>This is only the second record of this species from the South Island. The previous record was from Nelson.</td>
</tr>
<tr>
<td>Pseudocercospora acerosa (fungus)</td>
<td>Eucalyptus nitens</td>
<td>Marlborough</td>
<td>Forest Research (exotic forest survey – FOA)</td>
<td>Previously this fungus had been recorded from Southland, Mid Canterbury, North Canterbury, Nelson and Wanganui.</td>
</tr>
<tr>
<td>Cladosporium herbarum (cladosporium rot)</td>
<td>Ourisia macrophylla (mountain foxglove)</td>
<td>Otago Lakes</td>
<td>IDC (General Surveillance)</td>
<td>No other distributions recorded in PPIN.</td>
</tr>
</tbody>
</table>

Eleanor Morrison, Technical Support Officer, Biosecurity New Zealand, ph 04 498 9801, eleanor.morrison@maf.govt.nz

ANIMAL KINGDOM RECORDS 09/05/2005 – 17/06/2005

Validated new to New Zealand reports

No new to New Zealand records during this period.

New host reports

No new host records during this period.

Extension to distribution reports

No new distribution records during this period.

Suvi van Smit, Technical Support Officer, Biosecurity New Zealand, ph 04 460 8702, suvi.vansmit@maf.govt.nz

CODES OF WELFARE – Animal Welfare Act Update

This information can now be found in the Update section.
Exotic disease and pest emergency hotline: 0800 809 966
Animal welfare complaint hotline: 0800 327 027
www.biosecurity.govt.nz