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Biosecurity effort to step up another gear

by Murray Sherwin, MAF Director-General

Biosecurity has been under intense scrutiny over the past year or so. The products of that scrutiny are beginning to appear. Last month saw the release of the Prime Consulting International Ltd review of biosecurity surveillance. This month sees the release of a report by the Office of the Auditor General on biosecurity risk management. Shortly we will see the release, for a further round of consultation, of the Biosecurity Council’s draft biosecurity strategy document.

At last count, these three documents contained a total of around 170 recommendations for actions and initiatives to improve the effectiveness of our overall biosecurity operations and policies. Those recommendations span a range of issues, including governance, leadership, funding, prioritisation of effort, decision making, communications, linkages between central government agencies, linkages with local government biosecurity functions, and linkages with the non-government sector including Maori, NGOs and private sector industry groups.

While the work programme ahead to respond to these reports is daunting, the positive message is that the importance of biosecurity is well recognised, both within the Government and within other stakeholder groups. With that recognition comes the will to make decisions necessary to strengthen the nation’s biosecurity capability.

What has become clear in the course of the various reviews of biosecurity is that public and political expectations have expanded markedly in recent years. So too has the scope and complexity of the biosecurity task. The drivers for this growth can be found in:

- our increased and more diversified trade and tourism flows which have opened up pathways to more and different pests
- better detection methods, which mean that we now find more of the pests and diseases which do enter New Zealand inadvertently; and
- more sophisticated science, which both aids the detection of biosecurity risks, and adds to the range of response options.

It is also the case that the interest of New Zealanders in biosecurity matters has grown rapidly in recent years. Also, the nature of that interest has evolved from a primarily focus on risks to agriculture, horticulture and forestry, to now extending into risks to the conservation estate and our unique biodiversity, to human health and to the freshwater and marine environments.

The challenge over the next few months, for both the MAF Biosecurity team and other agencies engaged in biosecurity, is to assess the work produced in the reports already released, and the directions emerging from the biosecurity strategy, and to prepare responses to concerns identified and build on the strengths of our existing biosecurity infrastructure.

The clear message is that our overall biosecurity capability must step up another gear. That is a message that MAF is hearing loud and clear and we relish the opportunity to respond to it.

Flying the flag for biosecurity

The biosecurity message is reaching its target good and early if this creative effort from the Johnsonville cub pack is any indication. The boys’ sterling effort was given pride of place in the NatureSpace hall in Te Papa – a popular haunt for younger visitors and centre for many of the museum’s educational programmes.
New diagnostic tests have made it possible for surveillance for BSE to be extended. Apart from that, an international experts’ group on the disease has recommended only minor changes to the control strategies designed to prevent its spread.

The OIE ad hoc Group on bovine spongiform encephalopathy (BSE) met at the OIE Headquarters during October 2002. Dr Stuart MacDiarmid, National Manager Risk Analysis was one of the five experts brought together by the OIE to discuss recent advances in the understanding of the epidemiology of BSE and to advise the OIE on a number of measures designed to protect animal and human health. The outcomes of their discussions are summarised below.

**Surveillance**

Surveillance programmes developed before the advent of the new rapid diagnostic tests focused on the sub-population containing cattle displaying clinical signs compatible with BSE. The Group reaffirmed that while surveillance should focus on this sub-population, investigation of other sub-populations using the new diagnostic techniques may provide a more accurate picture of the BSE situation in the country or zone. A surveillance strategy may in fact need to combine several strategies.

**Progeny and cohorts**

The Group recommended some clarifications to the current Code concerning the risks presented by the progeny of BSE-affected female cattle, and by the birth and feed cohorts of BSE-affected cattle. Available information did not indicate any increased prevalence of BSE cases in the cohorts of affected cattle, and the Group concluded that slaughter and destruction of progeny and cohorts achieved few significant benefits.

**Tallow**

After reviewing information on the safety of tallow, the Group concluded that there was no new information which would indicate a need to significantly increase the restrictions on this commodity.

**Gelatin**

No changes to the current chapter are recommended until experimental studies underway have been completed.

No significant changes to BSE code

Intestinal tract

The Group considered that the requirements for trade in commodities containing tissues from the distal ileum were justified but that there was no new information which would indicate a need to place similar restrictions on the entire intestinal tract.

**Hides/skins**

Considering the lack of infectivity in skin, and taking into account normal production methods and the significant dilution factors involved, the Group concluded that no changes to the code were warranted.

**Meat and bone meal (MBM)**

The ad hoc Group discussed proposed alternative uses of MBM but, because of lack of data, could not make a recommendation regarding the safety of the disposal of MBM via burning in power plants or in plants manufacturing cement.

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New bee pest found in Australia

Following an incursion in Australia, MAF is taking steps to prevent the bee pest small hive beetle getting here.

A serious pest of bees, the small hive beetle (*Aethina tumida*), is the subject of an exotic organism response in New South Wales and Queensland. It destroys bee colonies and damages honey, rendering it useless for both the bees and human consumption.

The adult beetle is found primarily in honey bee (*Apis mellifera*) colonies but can also live in bumble bee nests and, possibly, in the nests of other social bees. It pupates in soil and can complete its lifecycle on some types of fallen rotting fruit.

**New Zealand impacts**

The beetle could establish in New Zealand but it is uncertain how successful it would be in cooler areas. Establishment of the beetle would affect some of New Zealand’s live bee and honey export markets. Chemical remedies are available but these would affect the status of organic products.

**Import risks**

The primary means of transmission for the beetle are honey bees, hive products and used beekeeping equipment. Importation of these commodities is currently prohibited. This situation will only change if the risk analyses MAF is currently developing (see Biosecurity 37:19) show that these commodities can be safely brought into New Zealand. The small hive beetle is covered in the risk analysis for these products.

The small hive beetle can also invade fallen rotting fruit and soil, and hitch-hike on air cargo.

The information MAF has collected to date indicates that compliance with existing import health standards and procedures would be expected to prevent introduction of small hive beetle to New Zealand. Further evaluation of the potential pathways for introduction of small hive beetle to New Zealand will occur by way of formal risk analysis.

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Helen Beban, National Adviser, International Animal Trade, phone 04 474 4138, fax 04 474 4227, bebanh@maf.govt.nz
New disease could threaten endangered native parrots

MAF is asking bird owners and enthusiasts to report any sick parrots that show signs of psittacine (parrot family) poxvirus, to help identify how far it has spread.

Psittacine poxvirus has been diagnosed in New Zealand for the first time, although other strains of avian poxvirus occur here. Experts believe that the disease could establish in New Zealand and cause high death rates amongst caged and wild introduced parrots, when factors combine to cause disease outbreaks.

Of even greater concern to New Zealand, however, is the potential effect on indigenous parrots such as the critically endangered kakapo, the threatened kaka and kea and kakariki. The susceptibility of native parrot species is not known. If they are susceptible, the disease could be spread to them from introduced wild parrots, through transfer by contaminated items or by biting insects.

**Report birds showing signs of the disease**

MAF wants to find out how widespread the disease is. To do this, they need samples from sick parrots, particularly rosellas, galahs, lorikeets, cockatiels and budgerigars that show signs of poxvirus infection.

An information sheet has been distributed to the bird fanciers community in New Zealand and posted on MAF’s website (see weblink below). Reports of suspect disease can be made to a veterinarian or the MAF Exotic Disease Hotline (0800 809 966). MAF will send information and forms to help veterinarians collect appropriate samples for testing. Diagnosis can only be confirmed by laboratory tests.

Continued on Page 6

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**Endangered native parrots such as these kakapo could be vulnerable to psittacine pox.** (Photo: Don Merton, Department of Conservation).

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**Signs of disease**

Psittacine pox can occur in various forms:

- A cutaneous form (skin form, sometimes called ‘dry’ form by budgie fanciers) causes nodules on the unfeathered parts of the skin, the cere, around the eyes and the feet. The nodules form blisters that erupt to scabby erosions. Secondary infections with other organisms may delay healing, but the mortality of birds affected with this form is low.

- A diphtheritic form (sometimes called ‘wet’ form) causes lesions on the mucous membranes of the mouth, eyes, and throat. White plaques will be seen on affected surfaces, with fluid effusions. The disease may become systemic, with internal lesions in the throat, gastro-intestinal tract, lungs and air sacs causing birds to be very ill and depressed. Mortality can be high with this form.

Birds affected with either form of the disease may appear weak and emaciated. In some cases there may be no or few outward signs, other than general depression, illness and death. There is no specific treatment or effective vaccine for psittacine pox.

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**Disease outbreak and investigation**

In July 2002 two rosellas were presented to an Auckland veterinarian. The birds subsequently died and psittacine poxvirus was diagnosed. MAF eventually traced the birds to an Auckland aviculturalist, on whose property there appears to have been a large number of bird deaths. Up to 200 rosellas caught from the wild were being prepared for export, along with other birds from a large number of sources. The mortalities appear to have largely been among rosellas, and the birds were disposed of without the event being reported. Depopulation and decontamination has been undertaken on three Auckland properties linked to the outbreak.

Investigating the disease outbreak has been more difficult for MAF because of the non-cooperation of some of the parties involved. The source of the rosellas is believed to be wild populations in the upper North Island; however the source of infection may be untraced caged birds that were introduced to the facility. Investigations involving other suppliers of birds to the outbreak facility continue.
Programme Coordinator, Active Surveillance

The position of Programme Coordinator, Active Surveillance, has been created in the Animal Biosecurity group, reflecting the benefits of improved prevention and early detection of pests and diseases to New Zealand biosecurity.

The new position will work in the areas of exotic animals (also called environmental pests) and animal exotic disease. Core tasks are to develop priority lists of exotic animal pests and exotic animal diseases for active surveillance, prepare proposals for active surveillance programmes, and coordinate the implementation of government-approved programmes.

Ron Thornton is the new programme coordinator. Prior to this appointment, Ron was the inaugural team leader of the Exotic Disease Response Centre of the National Centre for Disease Investigation at Wallaceville. There he had an exciting and busy time developing New Zealand’s animal disease and pest response capabilities managing several animal disease and environmental pest responses.

Before that, Ron worked as a veterinary pathologist and a laboratory manager. As a formally qualified pathologist, Ron has had plenty of hands-on work in epidemiology. He developed a liking for the subject and subsequently became a member of the Epidemiology Chapter of the Australian College of Veterinary Scientists.

Ron says active surveillance will complement the existing passive surveillance programme in helping to fulfil MAF Biosecurity Authority’s mission statement: “To protect New Zealand’s unique biodiversity and facilitate exports by managing risks to plant and animal health and animal welfare.”

Technically speaking, active surveillance is almost synonymous with surveys, Ron explains. “It can be more broadly defined as structured surveillance with analytical components that are able to measure the confidence limits of results and the consequences of failure.

“Active surveillance programmes are potentially complicated, expensive and highly technical. It is important, therefore, to have clearly defined objectives and identified revenue streams. Activities will be managed as projects and stakeholder consultation will be an important part of the entire process,” Ron says.

Ron Thornton, Programme Coordinator, Active Surveillance, phone 04 474 4156, fax 04 474 4227, thorntonnr@maf.govt.nz

International Animal Trade team

Paul Berentson joined Animal Biosecurity in October as a technical adviser in the International Animal Trade team. Paul has a BSc in Ecology and Environmental Studies which he completed at Victoria University after working and travelling overseas. The IAT team is responsible for negotiation and communication of animal health conditions for international trade. Paul will provide administrative and technical support for the non-ruminant animal portfolios.

MAF’s initial response

In the meantime, MAF is also tracing sources of birds to try and identify the source of infection. Birds are being checked for infection and, where necessary, properties are being disinfected.

MAF is also working with the Department of Conservation (DoC) and the Aviculture Society’s Avian Disease Management Council to develop plans for managing further cases.

Contingency options

DoC is assessing actions on a number of fronts, including:
• increasing biosecurity measures at important sites
• instructing staff to be vigilant for signs of the disease
• evaluating contingency measures to protect at-risk parrot populations, given that there is a risk that the virus may already be established in the wild
• possible review of hygiene protocols associated with parrot conservation management and disease screening procedures, along with the recovery plan for threatened parrot species
• possible temporary restrictions on the transfer of parrots from the greater Auckland region, until more is known about the spread of the poxvirus in the wild
• increased enforcement under the Biosecurity and Wildlife Acts, to discourage illegal parrot liberations.

Matthew Stone, Programme Coordinator, Exotic Disease Response, phone 498 9884, fax 04 474 4133, stonestem@maf.govt.nz

Verity Forbes, New Organisms Officer, Department of Conservation, phone 04 471 3251, fax 04 471 3279, VFORBES@doc.govt.nz

Aviculture Society’s Avian Disease Management Council:
Gwenda Hewson, fax 06 752 8089 gmhewson@xtra.co.nz

Murray Powell, phone 07 849 6510
www.maf.govt.nz/psittacine-pox
**Market access conditions for live animal and animal germplasm exports**

Overseas market access requirements (OMARs) are the conditions for the export of animals or animal products that New Zealand has agreed with the importing country. They are promulgated under the Animal Products Act 1999.

The import conditions are proposed by the importing country and then agreed by New Zealand through negotiation. Negotiations may involve New Zealand’s animal health status, tests available in New Zealand and our exports regulatory arrangements.

OMARs are not necessarily up to date because importing countries rarely advise changes in their requirements to MAF automatically. What the current OMAR does reflect is the latest agreement between MAF and the importing country.

Import permits issued by an importing country do contain its latest conditions for importation. However these conditions have not necessarily been agreed by MAF and may be at variance with those in the OMAR. In these cases, the International Animal Trade (IAT) Section of MAF Biosecurity must be advised far enough ahead of the export for changes to be made and negotiations undertaken where necessary.

MAF may also provide additional information where exporters would find it useful. This is attached to the OMAR but is not part of it.

**OMARs on the web**

The Animal Products Act 1999 requires MAF to make OMARs available to registered exporters. This is done via the MAF website. Some OMARs may be commercially sensitive and there is provision to restrict these by password to registered exporters.

It is intended that OMARs for all current export certificates for live animals and animal germplasm will be available on the web. However, not all OMARs for current export certificates are available yet, and it will take some time to develop these. Exporters can obtain a complete list of current export certificates through a link found on the OMAR page of the website.

Carolyn Hini, National Manager, International Animal Trade, phone 04 470 2780, fax 04 474 4227, hinic@maf.govt.nz

www.maf.govt.nz/animal-exports

**Biosecurity Business Support team**

Adrienne Tollemache has recently joined the Biosecurity Business Support team as the Programme Coordinator for the Biosecurity Awareness Programme, Protect New Zealand. Adrienne’s role involves developing and implementing strategies encouraging New Zealanders and visitors to New Zealand to help protect our country from pests and diseases.

Adrienne has joined MAF from AMP, where she worked as a Direct Marketing Consultant within the Marketing Communications team. Prior to that, Adrienne held various marketing positions, including working on the launch of INL’s Stuff website, one of New Zealand’s first online brands. Adrienne has a BCom from the University of Auckland, majoring in Marketing and Management.

Biosecurity People

**Watch out, weeds!**

As part of its efforts to cut pest plants down to size the Department of Conservation (DoC) has appointed Amber Bill as National Weeds Public Awareness Coordinator.

This is an exciting development and an opportunity for agencies to get together and send out a clear message about reducing the impacts of pest plants. The recent review on biosecurity surveillance recommends that public awareness and education programmes should be at the core of government involvement in biosecurity. Couple this with these facts – around 75 percent of invasive weeds are escapes from home gardens, numbers of invasive weed species are increasing, and new plants are constantly being introduced – and it’s easy to appreciate how important it is not to overlook pest plants.

DoC has secured money for the next two years to concentrate on improving this public understanding. The Coordinator will focus initially on weed awareness within DoC, building towards a national level campaign.

Amber Bill, National Weeds Public Awareness Coordinator, Department of Conservation, Canterbury Conservancy, phone 03 371 3720, abill@doc.govt.nz

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While New Zealand’s rural and business communities carried on business as normal in mid-November, MAF and associated response staff were simulating an animal disease outbreak that would have quickly disrupted everyone’s lives if it were for real.

MAF’s annual simulations are used for response training and readiness testing. This year’s practical exercise was based on animal anthrax, a disease not seen in New Zealand for almost 50 years but which regularly occurs in many other countries, including Australia.

The largely paper-based exercise was run out of Wellington and the Disease Investigation centre in Upper Hutt. Farmers and industry supply chains were also involved, providing real-life information during the simulation, explains Matthew Stone, Exotic Disease Response coordinator with MAF’s Animal Biosecurity group.

“We have a ‘standing army’ of trained personnel who we mobilised as soon as our scenario started on Monday 15 November. These included policy makers, disease investigators, scientists and vets,” said Dr Stone.

Other organisations involved included AgriQuality, the New Zealand Food Safety Authority, New Zealand Police, Ministry of Health, Department of Conservation, Ministry of Foreign Affairs and Trade, Asure New Zealand and regional council Horizons.mw (Manawatu/Wanganui).

Impact would be nation wide

Although the simulation centred on the lower North Island, the impact of such an outbreak would be national, with likely consequences including short-term suspension of export certificates on a number of products, traffic movement controls and a nation-wide public information campaign. Ensuring public health information is made available would be a priority to allay any unnecessary concerns.

“This was our largest exercise in recent years and involved as many as 200 staff for a whole week. We tested our response times, our geographic and mapping information, the quality of our intelligence gathering and all of the associated work that a response would call for,” said Dr Stone.

Rob Williams, a senior veterinary officer with Australia’s Department of Agriculture, was one of four international visitors to observe the simulation. “After running a critical eye over the week’s programme my conclusion has been that, aside from some minor tweaking, the systems here are both robust and flexible and I’ll certainly be taking some good points back to Australia,” he said.

By the end of the simulation scenario, anthrax had been detected on several dairy and meat farms in an area bounding the Manawatu River and the spread of infection was being minimised by controlling movement of possibly contaminated products and things.

Although there were several thousand livestock on these farms, less than 50 animals, including some wildlife, were found dead which would be typical of an anthrax incident where the spore-forming bacterium is uncovered in the soil.

The leading symptom of anthrax in farmed livestock is sudden death. The disease is not contagious however. As the most rapid spread of infection is from contact with dead carcasses, disposal of dead animals would involve incineration in pits at recorded sites. Unlike last year’s foot and mouth disease outbreak in Britain, slaughter would not be a strategy for anthrax.

Jeffrey Stewart,
Programme Adviser,
Surveillance and Response,
phone 04 474 4199,
fax 04 474 4133,
stewartje@maf.govt.nz

The observer team for the simulation consisted of – Maria McKinley, State Services Commission; Akiko Nishiguchi of Japan’s National Veterinary Assay Laboratory; Rob Williams of Australia’s Department of Agriculture, Fisheries and Forestry; Ty Vannieuwenhoven of the US Department of Agriculture; and Martin Atkinson of the UK’s Department for Environment, Food and Rural Affairs.
Guarding Pacific's Triple Star is the title of the draft biosecurity strategy scheduled for release for discussion in early January. The title drawn from our national anthem has deep symbolism for Maori and stands for the three islands of Aotearoa, New Zealand.

The strategy is passing through an approval process involving government departments and Cabinet prior to its release to everyone who had input during the first round of consultation on the issues to be considered in developing the strategy. The draft will also be available on the internet (see below) and comments will be received until mid-February, 2003.

The strategy makes a number of recommendations for short term actions to provide a base for achieving the longer term vision for the country’s biosecurity systems.

The proposed vision for 2010 is that:

New Zealand has a high-performing, integrated system for managing biosecurity risks to the economy, environment and human health. New Zealanders understand and have confidence in the biosecurity system. They are committed and able to play their vital role, from pre-border through to pest management.

Biosecurity is making a significant contribution to achieving a range of goals for the economy, environment and human health, including:

- protecting land-based primary industries and facilitating exports and tourism
- protecting New Zealand’s indigenous biodiversity – our native species, natural habitats and ecosystems
- enabling sustainable use of fisheries resources and protection of the marine environment
- maintaining the relationship between Maori and their culture and traditions with ancestral lands, waters, sites, waahi tapu and taonga
- protecting the health of New Zealanders from pest-borne diseases and from venomous species
- reducing the damage caused by pests and diseases introduced in the past.

The strategy proposes four prerequisites to lifting performance across the biosecurity system to achieve the vision:

1. Leadership and participation: Clear leadership of biosecurity, including communication of a collective vision, and integration and coordination across the biosecurity system. The public, industry and government agencies must have a strong sense of ownership, support and commitment to biosecurity and be active and informed participants in biosecurity programmes.

2. Responsiveness to Maori: Recognising the special nature of taonga.

3. Decision-making and priority setting: Decisions must be taken at the appropriate level, taking into account the full range of values; they must be taken transparently and based on adequate information.

4. Capability and funding: Agencies should have the resources and capabilities to deliver on their accountabilities, with the correct incentives in place for industry and individuals to fund biosecurity activities. Scientific inputs need to be more deeply integrated into the development of capabilities. www.biostrategy.govt.nz

Varroa update

National pest management strategy preferred option

The Varroa Planning Group’s preferred option for the long-term management of the varroa bee mite is available for public comment, with submissions accepted until 28 February 2003.

MAF has been working with the Varroa Planning Group to assess options for long-term management of varroa. The group includes representatives from the beekeeping, horticultural, pastoral and arable sectors, and local government. Its preferred option is a national pest management strategy with the objective of keeping the South Island varroa free.

The discussion paper describes the key measures that would be involved in keeping varroa out of the South Island, the expected costs of those measures, the benefits that a national strategy would deliver, and how the strategy might be funded. Anyone can make written submissions and there will also be a series of meetings for stakeholders. Details of the meetings are in the discussion paper.

Varroa destructor is a parasitic mite of honey bees first detected in New Zealand in Auckland in April 2000. Eradication was not considered to be technically feasible so MAF was funded to manage varroa for two years while long-term management options were assessed. The objectives of the interim programme were:

- to mitigate the impact of varroa within infested areas
- to slow the spread of varroa within the North Island; and
- to keep varroa out of the South Island.

Paul Bolger,
Varroa Programme Coordinator,
Surveillance and Response,
phone 04 474 4144,
fax 04 474 4133,
bolgerp@maf.govt.nz

For copies of the discussion paper:

Jeffrey Stewart, Programme Adviser,
Surveillance and Response,
phone 04 474 4199,
fax 04 474 4133,
stewartje@maf.govt.nz

www.maf.govt.nz/varroa

Submissions close 28 February 2003.
Queensland’s new animal welfare legislation was centre of attention at a successful conference for the Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART) held on the Queensland Gold Coast during October.

The conference, entitled Animal Welfare and Animal Ethics Committees: Where are the Goalposts Now? coincided with the implementation of Queensland’s new Animal Care and Protection Act 2001, which was enacted on 1 March 2002.

During the conference, it was recognised that members of animal ethics committees require skills not only in the areas of science, ethics and welfare, but also in the decision-making process itself. The theme of the conference was intended to reflect a growing general interest in animal welfare and ethics and the changing role of animal ethics committees.

The conference was divided into six sessions which addressed the question of ‘moving goalposts’, and included topics such as genetically modified organisms, thorny issues and ethical conundrums and achieving animal welfare outcomes. There was a good balance between the formal contributions and the informal discussions and a good mix of scientific and non-technical topics. The conference provided an open and interactive environment.

The more than 100 delegates came from all states of Australia and from New Zealand and included a wide range of animal welfare stakeholders as well as members of animal ethics committees. Animal welfare and lay members of animal ethics committees were well represented amongst the delegates, and valued the opportunity to meet members of other committees and discuss the challenging new issues they face.

Because the conference was held in Queensland, the state’s new Animal Care and Protection Act 2001 was discussed in some detail. The Queenslanders were justifiably proud that the Act has created the highest level of protection for animals anywhere in Australia. It promotes responsible animal care and use, creates an enforceable duty of care, and provides a broad range of enforcement powers to protect all animals from cruelty and abuse through dramatically increased penalties. It has also required a major effort in training enforcement officers and establishing animal ethics committees.

Professor Rory Hope, Director of ANZCCART, announced in his opening speech that the University of Queensland, the major conference sponsor, has established a Chair in Animal Welfare, funded by government and industry.

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

Biosecurity People

Biosecurity Coordination – Policy Team

David Wansbrough was appointed Manager, Biosecurity Coordination – Policy in October.

David joined MAF two years ago as a senior policy analyst working on biotechnology and genetic modification. He coordinated MAF’s input into the Royal Commission on Genetic Modification, the national biotechnology strategy, and public information about genetic modification. David also helped to develop a testing regime for genetically modified seeds – firstly for imported sweet corn seeds and then extending it to maize and canola seeds in 2002.

David first infiltrated New Zealand’s biosecurity system in October 2000 on moving to Wellington from Canberra, Australia, where he had worked in the Department of the Prime Minister and Cabinet on the Agriculture, Forestry and Fisheries portfolio. He contributed to the Australian biotechnology strategy, labelling of genetically modified food, and the joint New Zealand/Australia food regulatory system.

Although Wellington is much warmer than Canberra during winter, David is struggling to deal with the fact that winter here seems to last all year. He bought a Wallabies jersey shortly after moving here and wears it occasionally at work to test his colleagues’ mettle.
High-tech imagery reduces need for dissections

A project which exemplifies the potential for cooperation between animal welfare groups and the scientific community was the subject of one of 11 invited papers presented by New Zealanders at the Fourth World Congress on Alternatives and Animal Use in the Life Sciences held in New Orleans recently.

Technological Advances that Enhance Teaching Using Animals, and the Application of the Three Rs from Massey University’s Professor Alex Davies, describes progress in the development of computer-based programs at Massey’s Institute for Veterinary, Animal and Biomedical Sciences. Using a variety of techniques from interactive software, through computer graphics and animations to a Veterinary Virtual Museum, the end result is a significant reduction in the numbers of animals used for dissection.

Desire for improvements

These developments were stimulated by a desire to improve the classical methods of teaching anatomy. The motivations for this were various. Practical considerations included the expense of using animals, the difficulty in retaining the technical skills necessary for dissection preparation, larger classes meaning less available space, and constraints on time, personnel, animals and resources. On another level, there was some realisation that traditional methods were not necessarily ideal, or even adequate for all teaching objectives.

However, it was an awareness of the ethical issues of animal use and student expectations that alternatives would be available to them, that led to the funding partnership in 1994. Professor David Mellor, also of Massey University, recognising the strong animal ethics component of the project, directed Professor Davies towards the New Zealand Fund for Humane Research. This fund supports research into viable alternative techniques to replace living animals in scientific investigations.

The New Zealand Fund for Humane Research was established in 1981 by Lady Muriel Dowding, a British animal welfarist who had founded both the British Union for the Abolition of Vivisection and Beauty without Cruelty. Neil Wells, one of the founding trustees of the Fund, remembers that Professor Davies’ project to create computer programs for anatomy was one of the very few that fitted the requirements.

Ideal project

“Even if the ultimate aim is reduction in animal use,” he says, “the Fund will not support research involving manipulation of living animals. Because Professor Davies was intending to create his material using either archival material, or by using non-invasive techniques such as radiography and ultrasound, it was an ideal project for us to support.”

Despite the value of computer-based programs, there are no plans to do away with dissection altogether. “As long as students need to train to care for real animals, a fully alternative system is not viable if we are not to lower the standard of teaching,” says Professor Davies.

“However, we have reduced the number of many of the species of animals we kill for dissection by over 50 percent, because we can teach their anatomy just as well, and in many instances much better, using computer images and interactive programs. We are also using the animals that we do kill much more efficiently than previously and are enhancing our ability to teach anatomy on live animals, so that most horse and cattle anatomy is taught by sight, palpation and visualisation or ‘informed imagination’.”

For further information on the Fourth World Congress on Alternatives and Animal Use in the Life Sciences:

Alexander S. Davies, Associate Professor in Veterinary Anatomy Comparative Physiology and Anatomy Section, Institute of Veterinary, Animal and Biomedical Sciences, Massey University, Palmerston North, A.S.Davies@massey.ac.nz

www.worldcongress.net
One appointment and two reappointments to the National Animal Ethics Advisory Committee (NAEAC) were recently announced by the Minister of Agriculture. Wyn Hoadley was appointed for a second term as chairperson and Joanna Roberts was reappointed as a member. The new appointee is Jenny Prattley.

Wyn Hoadley is a barrister practising in the areas of resource management law and public law. She is also Chancellor of Auckland University of Technology, a North Shore City Councillor and chairperson of the council’s Regulatory and Hearings Committee. As NAEAC chairperson, Wyn also serves as a member of the National Animal Welfare Advisory Committee.

Joanna Roberts was nominated by Local Government New Zealand to represent the public interest in respect of animals. She operates a rural tourism business and is a former Kaipara District Councillor.

Jenny Prattley replaces Jeanette Crosado who had served five years on NAEAC. Jenny was nominated by the Royal New Zealand Society for the Prevention of Cruelty to Animals to provide knowledge and experience in animal welfare advocacy. She is Canterbury SPCA’s Shelter manager and has been an RNZSPCA National Councillor for 10 years.

Not some strange fruit but a hairball – in this case, out of a cow from India – was declared by a passenger arriving in New Zealand recently. MAF Quarantine Officers dealing with the novelty item suggested it is hair inside with a calcium secretion around the outside.

The passenger, who did the right thing by declaring it, didn’t know much about it. He just thought the tennis ball-sized curiosity was interesting. MAFQS is fumigating the hairball before returning it to the owner.

Hair balls (trichobezoar) in cattle are caused by frequent ingestion of hair. This is seen most commonly in cattle infested with lice or mange, or during the spring when shedding of the winter hair coat occurs. Under certain conditions, cows lick each other and themselves, but don’t digest the hair, which gathers in a mass.

On a wing and a prayer

MAF Quarantine Service Officers at Auckland International Airport seized the wing of a barn owl from a passenger from the United States recently. The item was declared, but was prohibited under both quarantine (because of fleshy tissue still attached) and CITES regulations.

Friends of the owner had found the bird dead by the roadside, taken it home and put it in the freezer. Because the bird was intact, they believed it still held its spirit. They had given the wing to their friend as a special gift.

When is a nut not a nut? When it is a fresh pistachio, complete with fleshy coating – then it is classified as fresh produce, and as such, is prohibited. MAF Quarantine Service Officers took these fresh pistachios – they originated in Iran – from a passenger at Auckland International Airport. Normally, pistachios have been dried and roasted, and are of minimal quarantine concern. Fresh nuts, however, constitute a high risk.
Bah humbug! Biosecurity bust stymies stout smuggler

A recent biosecurity bust at a Fiordland deer farm has resulted in the apprehension of a compulsive smuggler with an astonishing track record. Senior biosecurity and customs officials are astounded at the audacity of the overweight offender who has allegedly been flouting international trade, phytosanitary and zoosanitary regulations for decades.

Nicholas of Myra a former resident of Demre, Turkey was observed behaving suspiciously near the stag pens of a western Fiordland deer farm at 11:53pm on the sixth of December. When approached the offender mysteriously disappeared, but was reported soon afterward by Doris Wintergale, a resident of the Southland community of Nightcaps who alerted police after observing a man behaving suspiciously on her neighbour’s roof. When confronted by police, Nicholas again decamped but was apprehended following a high speed chase involving MAF detector dogs and dog handlers, five police patrol cars and two airforce Iroquois helicopters.

Eye witness reports appear to corroborate a MAF statement that Nicholas tried to escape apprehension by flying back to the Fiordland farm in a sleigh pulled by six reindeer. Sharp-nosed MAF detector dogs, assisted by the chopper pilots’ superb flying, were able to follow the scent of the reindeer and pursuing authorities forced Nicholas to land.


A spokesperson from MAF Forest Biosecurity said biological contamination posed an enormous threat to our forests. Pine needles with fruiting bodies of *Lophodermium seditiosum*, a potentially devastating needlecast disease, and oak leaves infected with *Ceratosyis fagacearum* oak wilt, and *Phytophthora ramorum* a disease which threatens a wide range of tree species were found among debris in the sleigh. Adult Siberian moths *Dendrolimus superans* were found inside a large sack that Nicholas carried on the sleigh. A number of wooden toys found inside the sack contained woodboring larvae of Asian long horned beetle *Anoplophora glabripennis* and Pine beetles *Dendroctonus micans*. Illegal importation of reindeer exposes New Zealand to the risk of introduction of a number of serious animal diseases.

A MAF Biosecurity spokesperson acknowledged that Nicholas, whose behaviour since his apprehension and custody has been nothing short of saintly, believed his activities would improve the welfare and happiness of children throughout the land. Officials portray Nicholas as thoughtful, generous, philanthropic and moralistic, and are at a loss to explain how such a saint-like individual could show so little respect for the biosecurity of New Zealand and for the law.

One thing is clear however, no longer will the sound of jingling sleigh bells gently float across the sky at Christmas. Furthermore, no longer will falling reindeer droppings pose a disease risk to our agricultural-based economy.
New Zealand experience shared at gypsy moth conference

For more than 20 years the United States has staged an annual international conference to discuss new information on gypsy moth and other high profile forest pest species.

Gypsy moth (Lymantria dispar) is a major concern to the United States, and over 160,000 hectares of forest is defoliated annually.

The annual management bill exceeds US$10 million and involves bulk aerial spraying with bio-pesticides such as Btk.

Regular surveillance in New Zealand since 1993 has resulted in no gypsy moth finds. However, regular intercepts at the border makes gypsy moth a potential high-risk pest to our forests.

New Zealand has participated in the conference on several occasions during the last decade. Attendance allows international contacts to be maintained, provides an insight into potential problem forest pests to New Zealand, and gives updates on current research into the gypsy moth.

More than 200 programme managers, aerial applicators and researchers attended this year’s conference.

Highlights included:

• gypsy moth in northern climates
• programme security and forestry aviation issues
• pheromones for insect control
• human health studies of Bacillus thuringiensis (Bt)
• discussion on ‘Fortress North America’ – how the United States and Canada harmonise import and cross border regulation of forestry and agriculture commodities to exclude quarantine pests
• media training techniques
• exotic pest issues and updates on introduced forest pests.

Two New Zealand representatives were invited to speak at the conference, with Mark Ross providing the keynote addresses. Mark spoke on New Zealand’s forest biosecurity efforts and used the white-spotted tussock moth response as a case study of how to successfully eradicate a Lymantriid moth. The second MAF representative, Chris Baddeley, spoke on the human health impact studies that were conducted during the white-spotted tussock moth operation and the current painted apple moth response.

Both presentations were well received, with many questions fielded on the logistics of forest surveillance and response within New Zealand.

It was reassuring to note that throughout the conference many parallels were observed between New Zealand, Canada and the United States in the continuing efforts to keep out, manage and eradicate exotic forest pests.

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

The painted apple moth eradication programme is proceeding according to plan, with two sprays covering 8000 ha already completed and a further spray scheduled for early December.

The first aerial spray operation on 23 October was completed in one day thanks to near perfect weather conditions. A Fokker F27, AT 602 Air Tractor and BK 117 helicopter were used to apply the Foray 48B. Dr Bob Fusco, a senior Research and Development scientist with Valent Bio-Sciences met with the team and undertook various tests during the operation.

There were some community concerns about the impact the aerial operation had on children walking to and from school and while they were eating lunch. Changes to the flight schedules means we are aiming not to have the planes in the air during the times of concern. Following a debrief and plan revision by the operations team the new schedules were implemented on the second spray day of 13 November and were well received by community leaders and school principals who commended the project team for responding to the community concerns.

The second spray day on 13 November was hampered by the wind but the aerial operation was finally completed on 15
Freeing up transtasman flow of produce

Trade in plant-base products between Australia and New Zealand should be both safer and more efficient following successful talks between the countries’ top biosecurity officials.

Banana fruit fly has split

New Zealand markets may be open to Australian bananas by Christmas following the successful eradication of the fruit fly that had afflicted the crop.

Access to seven other tropical fruits including mangoes, lychees and custard apples is also being considered depending upon whether import health standards are in place for the start of the 2003 export season in September.

Irradiation will be the principal phytosanitary measure.

These and other issues were discussed during September at the annual New Zealand MAF and Australian Biosecurity meeting. New Zealand was represented by MAF’s Director Plants Biosecurity, Richard Ivess.

Mr Ivess says the meeting was an ideal opportunity to raise issues relating to market access and quarantine requirements.

Freer flow at border

“We made enormous progress in further streamlining and improving efficiency at the border for exporters and importers, particularly on ways both countries could collaborate to make the existing system more efficient.”

This included considering ways in which the Australian import risk analysis procedures for New Zealand apples could be implemented in a scientifically justified and transparent manner.

Progress was made in New Zealand’s application to export lily bulbs and flower varieties to Australia. While this was to be part of a wider risk analysis Australia will review existing requirements which will markedly speed this process.

Shrink-wrapped products cause frustration

It was also acknowledged that there was frustration for both the border inspector and the exporter when inspecting pre-packaged produce such as shrink wrapped cucumbers and truss tomatoes. The damage to packaging when removed for inspection impacted not only on future saleability but also added considerable time to the inspection.

To address this it was agreed that both countries would develop quality management systems which would increase the level of security prior to export. This policy will only apply to products where both countries have good history of no interceptions at arrival.

Another initiative aimed at reducing inspection time and frequency is the pest lists supplied from the importing country. These lists assist exporters in ensuring their products comply with established standards.

Mr Ivess says both countries will continue to develop initiatives designed to increase the effectiveness of our border controls without limiting trade opportunities.

Richard Ivess,
Director Plants Biosecurity,
phone 04 474 4127,
fax 04 474 4257,
ivessr@maf.govt.nz

November. Trapping grids, which were reduced over winter, were re-established in late September and early indications from the population model are that there has been a significant reduction in the population following the earlier programme.

Hotspots are being continually monitored – the latest being a significant larval find among mangroves in Motions and Meola Creeks in the Point Chevalier area. This area was ground sprayed immediately and will now be included in the painted apple moth zone. The helicopter was used to spray the area on 21 November and fixed wing will be deployed in December.

As the Auckland Zoo is now in the new extension of the zone, zoo officials have been fully briefed and they are not expecting any major problems.

At press time the next spray day was planned, weather permitting, for 2 December 2002.

Ian Gear,
Director Painted Apple Moth Project,
phone 04 474 4275,
fax 04 474 4196,
egeari@maf.govt.nz

www.maf.govt.nz/painted-apple-moth
The root weevil, *Otiorhynchus corruptor*, was discovered recently in an Oamaru supermarket by a vigilant employee who spotted it in a carton of table grapes from Italy and reported it via MAF’s exotic pest and diseases hotline.

The remainder of the consignment was closely inspected by MAF and two further weevils were found and destroyed.

The weevil was identified to genus level in New Zealand and sent to Italy for species identification by an Italian weevil expert.

A weevil of the same genus – the black vine weevil (*Otiorhynchus sulcatus*) – already exists in New Zealand and its biology is likely to be similar to the new import. It is possible that *O. corruptor* could reproduce without mating (or parthenogenesis), and thus may be able to produce large numbers of eggs, giving it significant pest potential.

MAF considers the root weevil to be a potentially significant pest and has notified the Italian authorities of the detections. It has also been added to the pest list of regulated organisms for table grapes, and inspection requirements at the border have been increased.

The import health standard is being reviewed at the end of the current importing season and this will include documentation of MAF’s actions on detection.

George Gill, Technical Adviser, Pest Management, MAF Plants Biosecurity, phone 04 470 2742, fax 04 474 4257, gillg@maf.govt.nz

A new fungus that attacks carnations was discovered on a North Island property in October. MAF is investigating how far the downy mildew, *Peronospora dianthi*, has spread and how it got into New Zealand.

Generally, *Peronospora* species are host specific, and *P. dianthi* has only been recorded from *Dianthus* species, which include carnations, pinks and sweet William.

Severely infected plants have stunted growth with a deceptive profusion of shoots at the base of the plant, giving a bushy appearance. The fungus produces two spore types; the short-lived conidia found on the underside of leaves, and the other more resilient oospore, which can live several years in the soil and is produced internally in rotting leaf tissue.

*Peronospora dianthi* is an unwanted organism (under review) under the Biosecurity Act. This species appears to affect ornamental carnations due to the leafy growth habit which favours development of the disease.

Review of overseas literature shows that downy mildew is not a major disease. It tends to express under favourable environmental conditions which create high humidity in the foliage.

MAF has taken the following actions in response to the discovery:

- Restrictions have been placed on the infected property to contain the disease while more information is gathered;
- A selection of properties growing *Dianthus* species have been visited to evaluate the distribution of the disease;
- Information has been posted on the MAF website;
- Forty growers of *Dianthus* have been informed of the symptoms and arrangements made for free diagnosis of plants with suspected symptoms.

George Gill, Technical Adviser, Pest Management, MAF Plants Biosecurity, phone 04 470 2742, fax 04 474 4257, gillg@maf.govt.nz

www.maf.govt.nz/downy-mildew
Deeup burial is used in certain circumstances as a method of disposing of risk goods that cannot be given biosecurity clearance. The risk goods are transported securely to a landfill site where they are buried under two metres of soil, followed by up to 50 metres of refuse or fill on top.

Recently, 600 tonnes of grain that had been imported for flour production was deep buried near Wellington.

The wheat had been damaged after water from a leaky hose caused it to rot and ferment. The wheat could not be turned into flour and such a large volume could not be burnt or cooked. The fermented wheat could not be given biosecurity clearance because of the possibility of contamination of weed seeds.

A MAF Quarantine Service inspector seized the wheat because it was considered a risk good and landfills are not recognised transitional facilities. Once seized, a Chief Technical Officer directed the wheat for deep burial under stringent security and transport conditions. The landfill site where the wheat was buried has resource consent for the dumping of quarantine refuse.

The entire amount was buried in a 75m x 6m x 5m trench during a three-day operation at the Wainuiomata landfill. The process was carried out without a hitch, but observers commented that the stench from the fermented wheat was intolerable.

Brendan McDonald, Programme Coordinator, Border Management Group, phone 04 474 4204, fax 04 470 2730, mcdonaldb@maf.govt.nz

**Holiday reading aplenty!**

It's been another busy year for biosecurity, with December delivering its share of year's-end delights.

The month began with the long-awaited release of the report of the Office of the Controller and Auditor-General on biosecurity risk management at MAF. This was being tabled in Parliament as two separate volumes – the first on 27 November and the second expected before Christmas.

On the day of the report's release, MAF's Acting Director-General Larry Ferguson said it provided some useful insights into the management of biosecurity risks and had been a valuable resource for developing the upcoming draft Biosecurity Strategy.

He also commented on significant advances made by MAF Biosecurity in the three years since its establishment, and noted MAF is continuing to accept and address old and new issues alike.

Biosecurity Council chair John Hellström said the Auditor-General’s report has added to the emergence of common themes around which the foundation of a national Biosecurity Strategy is being built (see page 9).

Dr Hellström said recent reviews have all brought a raft of useful recommendations forward.

He also noted it is important to recognise that the Biosecurity Strategy will eventually sit above all of the recent reviews.

“We do have a successful biosecurity system in New Zealand and we shouldn’t lose sight of that. I believe the number of reviews of our biosecurity system is reaching a saturation point and we need to shift our attention to agreeing on a Biosecurity Strategy, ready for implementation by July 2003.”

On another note of progress, the New Zealand Biodiversity Strategy – under which the Biosecurity Strategy has been sponsored – celebrated the completion of its second year in December with the launch of a new, joint agency biodiversity web site (see link below). It’s a sign of things to come and another form of holiday reading to catch up on!

Brendan McDonald, Programme Coordinator, Border Management Group, phone 04 474 4204, fax 04 470 2730, mcdonaldb@maf.govt.nz

**Media releases**

- www.maf.govt.nz/mafnet/press
- Biosecurity Council
  - www.maf.govt.nz/biocouncil
- Biosecurity Strategy
  - www.biostrategy.govt.nz
- Biodiversity website
  - www.biodiversity.govt.nz
- Audit Report
  - www.oag.govt.nz

**Biosecurity Issue 40 • 15 December 2002**
Expanded Border Management Group

The MAF Biosecurity Authority Border Management Group was expanded earlier this year with the appointment of Neil Hyde as Director and Chief Technical Officer, an Executive Coordinator and three Scientific Advisers, increasing the size of the specialist group from three to eight. The new members of the team are all based in Auckland, while the other three members, Mike Alexander, Ken Glassey and Brendan McDonald, are based in Wellington.

The Border Management Group is accountable for managing biosecurity risks at New Zealand’s border in a cost-effective manner. It does this by developing and promulgating import health and operational standards and by overseeing, via an internal contract, the efficiency and effectiveness of delivery of border inspection operations by the MAF Quarantine Service. The Border Management Group also provides advice to the Minister of Biosecurity on border management, liaises with international counterparts and develops biosecurity border management strategies. This work is undertaken in close cooperation with the other MAF Biosecurity groups.

Research and development associated with managing border risks, consultation with stakeholders and other border agencies, and representation in a number of key national and international forums is pivotal to the success of New Zealand’s biosecurity border management capability.

Neil Hyde, Director

Neil was the Director of the MAF Quarantine Service prior to joining the MAF Biosecurity Authority. He led the MAF Quarantine Service team during a period of significant growth and change. He has also held regional and national management positions in plant surveillance, incursion response and plant protection centres. Before joining MAF he was employed in a metallurgy laboratory. His tertiary qualifications include an MBA.

Jeanette Dawson, Executive Coordinator

Jeanette has recently joined the MAF Biosecurity Authority as Executive Coordinator, Border Management Group. She will provide administrative support to the Director and coordinate group actions. Before joining MAF she completed a BSc/BA at the University of Auckland, majoring in Biological Sciences and Spanish.

Carolyn Whyte, National Adviser Border Risk Management

Carolyn joined MAF in 1993 as a Senior Quarantine Scientist, Biometrics at the Lynfield Plant Protection Centre. This position was transferred to the MAF Quarantine Service in 1998. She now joins the MAF Biosecurity Authority as National Adviser, Border Risk Management. Carolyn received College Honours for her BSc in Zoology from the University of Washington and then went on to complete her PhD in Biology, with a minor in Statistics, at Indiana University.

Jana Nair, National Adviser Plant and Forestry Border Management

Jana was first employed by MAF in 1986 and served for some years in a training role with MAF Quarantine Service. More recently he served as a Senior Quarantine Scientist providing technical liaison between MAF Quarantine Service and MAF Biosecurity Authority. Jana joins the MAF Biosecurity Authority as National Adviser, Plant and Forestry Border Management. He completed his MSc with first class honours and a PhD at the University of Auckland. Although his qualifications focused on botany and forest pathology, he possesses wide technical skills in most aspects of quarantine.

Sarah Wedde, Technical Adviser Border Risk Management

Sarah recently joined MAF Biosecurity Authority as a Technical Adviser, Border Risk Management from her previous position of Quarantine Scientist, Biometrics with the MAF Quarantine Service. Sarah came to MAF in September 2001, having completed her Masters degree in Applied Science, with a Plant Ecology thesis, at Lincoln University. Sarah also holds a BSc in Ecology and Environmental Science from Auckland University.
Regional pest management strategies

This is the second article in a series of regional perspectives on biosecurity.

The Biosecurity Act 1993 reformed the way New Zealand manages the risks posed by organisms to the economy, environment and people’s health. Under the Act, no single agency is required to be involved in pest management. However if an agency or group chooses to do so, and wishes to impose obligations on other parties, then a national or regional pest management strategy will generally be required.

A pest management strategy sets out a strategic framework for managing harmful organisms that have been declared ‘pests’ under the Act. Since 1993, most regional councils have been proactive and continue to manage plant and animal pests on behalf of their region. They have proposed regional pest management strategies and taken them through the following steps:

- establishing that the nominated pests do indeed have serious adverse and unintended effects, and that the benefits of the strategy will exceed its cost, and will accrue to the region rather than individuals
- consulting with those likely to be interested or affected
- providing sufficient content in the proposal to allow stakeholders to make a meaningful contribution
- identifying the ‘exacerbators’ of the problem pests and the ‘beneficiaries’ of control, so as to determine who should fund the strategy
- publicly notifying the proposal, the appointment of commissioners, the holding of an inquiry, and the decision to adopt the strategy.

In the case of a regional strategy, any stakeholder that does not agree with the council’s final decision in relation to their submission has the right to refer the matter to the Environment Court.

Any government department, local authority, or industry group can prepare a pest management strategy, but 21 of the 23 current strategies have been prepared by regional councils (Table 1).

<table>
<thead>
<tr>
<th>Management agency</th>
<th>Strategy name</th>
<th>Organism type</th>
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<tr>
<td>Animal Health Board**</td>
<td>National Bovine Tuberculosis Pest Management Strategy</td>
<td>Bacterium</td>
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<td>Auckland Regional Pest Management Strategy</td>
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<td>Plant Pest Management Strategy for the Bay of Plenty Region</td>
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<td>Regional Animal Pest Management Strategy</td>
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<td>Marlborough District Council</td>
<td>Regional Pest Management Strategy for the Manawatu-Wanganui Region</td>
<td>Plants</td>
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<td>National Beekeepers’ Association of NZ Inc**</td>
<td>National American Foulbrood Pest Management Strategy</td>
<td>Bacterium</td>
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<td>Northland Regional Council***</td>
<td>Northland Regional Pest Management Strategies for Nassella Tussock and a number of other Plant Pests</td>
<td>Plants</td>
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<td>Northland Regional Council***</td>
<td>Northland Regional Pest Management Strategies for a number of Animal Pests</td>
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<td>Wellington Regional Council</td>
<td>Regional Pest Management Strategy – Wellington Region</td>
<td>Plants, birds, fish, mammals, insects</td>
</tr>
</tbody>
</table>

* Source: MAF Pest Management Database
** National Pest Management Strategy
*** Northland Regional Council has a number of RPMSs but for the purpose of this article they are considered as two strategies – for animal pests and for plant pests.
New import health standards

Specified inedible animal products and biologicals from all countries

Numdah rugs must be inspected to ensure they are free of contaminants such as seeds. Other commercially manufactured items containing animal fibres can be released unconditionally. This standard is dated 4 October 2002 and replaces the one dated 24 September 2002.

Dairy products for human consumption

Israel has been added to the list of countries in the standard for Commercial consignments of dairy products for human consumption from specified countries. The new standard is dated 15 October 2002 and replaces the one dated 16 May 2001.

Pig meat and poultry meat samples for evaluation and destruction from Australia

Reference to the National Chemical Residue Laboratory at Wallaceville has been removed. This import health standard is dated 14 October 2002 and replaces the one dated 24 July 1998.

Dogs and cats from Australia

Clause 6.4 has been amended to allow animals less than 8 weeks of age to travel when accompanied by their mother. The Australian Quarantine and Inspection Service (AQIS) highlighted contradictions in the International Air Transport Association (IATA) regulations, which mean some carriers would not accept these animals for travel. Editorial changes have also been made. The latest standard is dated 29 October 2002 and replaces ones dated 25 September and 8 October 2002.

Dog semen from Belgium, the Netherlands and Hungary

Belgium and Hungary have been added to the standard for dog semen from the Netherlands. The new standard is dated 30 October 2002 and replaces the one dated 11 January 1998.

Zoo primates from Australia

This standard has been updated to require tuberculosis testing for prosimians, new and old world monkeys, gibbons and great apes only (marmosets and tamarins do not require testing) as per the 2002 World Animal Health Organisation (OIE) International Animal Health Code.

Tests and treatments for infectious disease and parasites must be recorded and supplied only for the two-year period during which the animal must have been on the premises of export, rather than its lifetime. The new standard is dated 11 November 2002 and replaces the one dated 28 October 2001.

Slender-tailed meerkat

This is a revision of the standard that was withdrawn when the Hazardous Substances and New Organisms Act 1996 came into place. This species of meerkat is the only viverridae now allowed to be imported. The new import health standard is dated 29 October 2002.

Equipment used with animals

Used beekeeping equipment has been removed from the standard until the import risk analysis for honey bee hive products and used beekeeping equipment is completed. The fumigation requirements for used veterinary equipment, used sheep/goat shearing equipment, used horse covers, rugs, saddles, harnesses and other animal equipment have been changed.

Section 7.2.3 has been changed to require the equipment to be cleaned “in hot water” and, in section 7.3.3, the words “organic material” have been replaced with “live insects”.

The new standard is dated 26 September 2002 and replaces the one dated 19 April 2002.

Private consignments of animal fibre from all countries

The fumigation treatment requirements for biosecurity clearance have been changed. The new standard is dated 11 November 2002 and replaces the one dated 26 June 2002.

Export testing laboratory standards

Two new standards have been added to the suite for export testing laboratories. The existing standard allows veterinary laboratories to do specified serological tests for endemic diseases, for animals to be exported.

A new standard, for bacteriological testing for export, has been approved following consultation with industry. The approval relates only to specified bacteriological tests for endemic diseases.

The second new standard relates to bulls that are candidates to go to an export semen collection centre, while they are undergoing evaluation. EU Directive 89/407/ECC and subsequent amendments require that serological testing of these animals takes place in an approved laboratory. This standard is still undergoing consultation with industry.

Kerry Mulqueen, National Adviser, Import Management, phone 04 498 9624, fax 04 474 4132, mulqueenk@maf.govt.nz

Roger Poland, Programme Coordinator, Surveillance, phone 04 498 9820, fax 04 474 4133, polandr@maf.govt.nz
Cattle welfare during sea transport

A draft MAF standard for the welfare of cattle during sea transport is available for public consultation. This is an interim standard until a code of welfare can be developed under the Animal Welfare Act 1999.

Jennie Brunton, phone 04 474 4116, fax 04 474 4277, bruntonj@maf.govt.nz
www.maf.govt.nz/biosecurity/consultation.htm

Camel meat and camel meat products from Australia

The draft import health standard proposes that only muscle tissue (not offals) may be imported. The camel meat and camel meat products shall be commercially packaged and sealed with an official government or company seal. The camel meat must come from animals slaughtered and processed in government-licensed premises under official supervision and be subject to ante-mortem and post-mortem inspection.

Consultation closes 17 January 2003

Paul Berentson, Technical Adviser, International Animal Trade, phone 04 498 9897, fax 04 474 4227, berentsonp@maf.govt.nz
www.maf.govt.nz/biosecurity/consultation.htm

Good practice guide for the use of animals in research, testing and teaching

This publication has been produced by the National Animal Ethics Advisory Committee to encourage those responsible for animals used in research, testing and teaching to adopt the highest standard of husbandry and animal care.

If you would like a copy of this document, please download it or contact:

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

Animal manipulation statistics due

All organisations/individuals with a code of ethical conduct or who have an arrangement to use another organisation’s animal ethics committee are reminded that their annual return of animals manipulated during 2002 is due to be submitted to MAF by 31 January 2003. Returns must be in writing and should be made on the forms provided by MAF for this purpose.

Pam Edwards, Executive Coordinator Animal Welfare, phone 04 474 4129, fax 04 498 9888, edwardsp@maf.govt.nz
www.maf.govt.nz/animal-welfare

Codes of ethical conduct – approvals, notifications and revocations since the last issue of Biosecurity

All organisations involved in the use of live animals for research, testing or teaching are required to adhere to an approved code of ethical conduct.

Codes of ethical conduct approved: Nil

Amendments to codes of ethical conduct approved: Nil

Notifications to MAF of minor amendments to codes of ethical conduct: Nil

Notifications to MAF of arrangements to use an existing code of ethical conduct

• AgriQuality NZ Ltd (change from AgResearch Ltd’s Wallaceville AEC to Ruakura AEC)
• Livestock Improvement Corporation Ltd (to use AgResearch Ltd’s code, Ruakura Animal Ethics Committee)
• Novartis New Zealand Ltd (to use PharmVet Solutions’ code)
• Pyne Gould Guinness Ltd (to use Lincoln University’s code)

Codes of ethical conduct revoked or arrangements terminated

• Livestock Improvement Corporation Ltd (to use the University of Waikato’s code)
• Merial NZ Ltd
• Nufarm Ltd
• The New Zealand King Salmon Co Ltd.

Draft import health standards for consultation - Plants

The following draft import health standards have been developed by MAF Biosecurity Authority, Plant Imports:

• Triticum (wheat) grain for processing
• Avena (oat) seed for sowing
• Hordeum (barley) seed for sowing
• Phaseolus (bean) seed for sowing
• Pisum (pea) seed for sowing
• Triticum (wheat) seed for sowing
• Vicia (bean) seed for sowing

Laraine Beaven, Technical Adviser – Plant Imports, MAF Biosecurity Authority, fax 04 474 4257, plantimports@maf.govt.nz
www.maf.govt.nz/consultation
Under Plants Biosecurity.
New organism records: 28/09/02 – 15/11/02

Biosecurity is about managing risks – protecting the New Zealand environment and economy from exotic pests and diseases. MAF Biosecurity Authority devotes much of its time to ensuring that new organism records come to its attention, to follow up as appropriate. The tables below list new organisms that have become established, new hosts for existing pests and extension to distribution for existing pests. The information was collated by MAF Forest Biosecurity and MAF Plants Biosecurity during 28/09/02 – 15/11/02, and held in the Plant Pest Information Network (PPIN) database. Wherever possible, common names have been included.

**PLANTS BIOSECURITY RECORDS 28/09/02 – 15/11/02**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Host</th>
<th>Location</th>
<th>Submitted by</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myzus persicae (green peach aphid)</td>
<td>Echium plantagineum (Patterson’s curse)</td>
<td>Mid Canterbury</td>
<td>National Plant Pest Reference Laboratory (NPPRL)</td>
<td>MAF is conducting a delimiting survey of the fungus. This fungus is currently known from only one property and MAF has put containment measures in place to prevent spread of the disease.</td>
</tr>
<tr>
<td>Puccinia chrysanthemi (chrysanthemum rust)</td>
<td>Agryranthemum frutescens (Marguerite)</td>
<td>Auckland</td>
<td>NPPRL</td>
<td>The other PPIN host is chrysanthemum.</td>
</tr>
<tr>
<td>Balanococcus danthoniae (mealybug)</td>
<td>Hordeum vulgare x Hordeum bulbosum (perennial barley)</td>
<td>Mid Canterbury</td>
<td>NPPRL</td>
<td>No other hosts recorded in PPIN.</td>
</tr>
<tr>
<td>Erysiphe cichoracearum (powdery mildew)</td>
<td>Carica x heilbornii var. pentagona (babaco)</td>
<td>Auckland</td>
<td>NPPRL</td>
<td>Other PPIN hosts include cucurbits, tamarillo, chrysanthemum, potato, perennial phlox, field speedwell and woolly nightshade.</td>
</tr>
</tbody>
</table>

**New host reports**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Host</th>
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<tbody>
<tr>
<td>Myzus persicae (green peach aphid)</td>
<td>Echium plantagineum (Patterson’s curse)</td>
<td>Mid Canterbury</td>
<td>National Plant Pest Reference Laboratory (NPPRL)</td>
<td>This aphid has a very wide host range and geographic distribution.</td>
</tr>
<tr>
<td>Puccinia chrysanthemi (chrysanthemum rust)</td>
<td>Agryranthemum frutescens (Marguerite)</td>
<td>Auckland</td>
<td>NPPRL</td>
<td>The other PPIN host is chrysanthemum.</td>
</tr>
<tr>
<td>Balanococcus danthoniae (mealybug)</td>
<td>Hordeum vulgare x Hordeum bulbosum (perennial barley)</td>
<td>Mid Canterbury</td>
<td>NPPRL</td>
<td>No other hosts recorded in PPIN.</td>
</tr>
</tbody>
</table>

**Extension to distribution 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>Spiilocae oleaginae (olive leaf spot)</td>
<td>Olea europaea (African olive)</td>
<td>Bay of Plenty</td>
<td>Forest Research</td>
<td>Other PPIN distributions include Auckland, Northland and Waikato.</td>
</tr>
<tr>
<td>Botrytis tulipae (tulip fire)</td>
<td>Tulipa sp. (Tulip)</td>
<td>Wangarui</td>
<td>National Plant Pest Reference Laboratory</td>
<td>Other PPIN distributions include North, Mid and South Canterbury, Southland, Nelson, Dunedin, Wellington, Coromandel, Rangitikei, Auckland, and Waikato.</td>
</tr>
</tbody>
</table>

**FOREST BIOSECURITY RECORDS 28/09/02 – 15/11/02**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Host</th>
<th>Location</th>
<th>Submitted by</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leptomelanconium austrialeiense (no common name)</td>
<td>Eucalyptus ficifolia (red flowering gum)</td>
<td>Hawkes Bay</td>
<td>Forest Research</td>
<td>This fungus was first described in Australia from <em>Eucalyptus ficifolia</em> in 1974 where it was reported to cause leaf lesions. There appear to be no other hosts recorded and this is the first record from outside Australia. In New Zealand the samples examined had moderate to high levels of leaf spots.</td>
</tr>
<tr>
<td>Coccopteryx dactyliperda (Kentia palm seed borer)</td>
<td>Phoenix canariensis (Phoenix palm)</td>
<td>Auckland</td>
<td>National Plant Pest Reference Laboratory</td>
<td>This species has an almost world wide distribution and may have been in NZ for some time before this detection. A specimen was detected from a wood chip pile in the Auckland Domain in 2000. Scolecytid specialist Milos Knizek has examined this specimen and confirms it is <em>Coccopteryx dactyliperda</em>. A further 15 specimens of this species were also reared from seed taken from Kohimarama, Auckland on January 19 January 2002 and Blockhouse Bay in February 2002. Specimens have also been reared from Phoenix palm seed collected from Whangarei in Northland March 2002. On 28 January 2002 a specimen was also detected in a Bark beetle trap positioned at the Port of Auckland. Feeds on a variety of palm seeds including Phoenix, Kentia and Howeia spp.</td>
</tr>
</tbody>
</table>

**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>Phylosticta spinarum (no common name)</td>
<td>Sequoiadendron giganteum (Giant sequoia)</td>
<td>Auckland</td>
<td>Forest Research</td>
<td>Other PPIN hosts include Lawson’s cypress, kaikawaka, Californian redwood, false arbovitae, Mediterranean cypress and olive.</td>
</tr>
<tr>
<td>Leptocybe cupressi (cypress canker)</td>
<td>Juniperus rigida (Needle juniper)</td>
<td>Mid Canterbury</td>
<td>Forest Research</td>
<td>Cypress canker is a major disease problem in many cypress plantations.</td>
</tr>
</tbody>
</table>
### 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><em>Hierodons atychoideus</em></td>
<td><em>Abies fargesii</em> (Farges fir)</td>
<td>Wellington</td>
<td>Forest Research</td>
<td>Wide range of native and exotic hosts including spruce, fir, pines and cypresses.</td>
</tr>
<tr>
<td><em>Cardiaspina fiscella</em></td>
<td><em>Eucalyptus deanei</em> (Deane’s gum)</td>
<td>Northland</td>
<td>Forest Research</td>
<td>A relatively recent introduction, this psyllid causes serious defoliation of <em>Eucalyptus</em> spp. in its native Australia during periods of drought.</td>
</tr>
<tr>
<td><em>Phylacteophaga froggatti</em></td>
<td><em>Eucalyptus deanei</em> (Deane’s gum)</td>
<td>Northland</td>
<td>Forest Research</td>
<td>Other PPIN hosts include Dwarf bean, Tasmanian blue gum, Sydney blue gum, shining gum and <em>Eucalyptus</em> sp.</td>
</tr>
<tr>
<td><em>Aenetus virescens</em></td>
<td><em>Buddleja davidii</em> (Buddleia, butterfly bush, Summer lilac)</td>
<td>Bay of Plenty</td>
<td>Forest Research</td>
<td>Hosts include a wide range of native and exotic shrubs and trees.</td>
</tr>
<tr>
<td><em>Ctenopseustis obliquana</em></td>
<td><em>Correa sp. cv. Dusky Bells</em> (Fuchsia)</td>
<td>Wellington</td>
<td>Forest Research</td>
<td>Attacks a very wide range of native and exotic trees and vegetable crops. Hosts include Douglas fir, radiata pine, eucalypts and acacias.</td>
</tr>
<tr>
<td><em>Pseudocoremia suavis</em></td>
<td><em>Acacia paradoxa</em> (Kangaroo acacia, Kangaroo thorn, prickly acacia)</td>
<td>Wellington</td>
<td>Forest Research</td>
<td>Attacks a very wide range of native and exotic hardwoods and softwoods. Significant defoliator of Douglas fir and radiata pine.</td>
</tr>
<tr>
<td><em>Cephalouros virescens</em></td>
<td><em>Agonis sp.</em> (Willow myrtle)</td>
<td>Auckland</td>
<td>Forest Research</td>
<td>Other PPIN hosts include red honeysuckle, passionfruit and Kermadec pohutukawa.</td>
</tr>
<tr>
<td><em>Omona hirta</em></td>
<td><em>Telopea oreades</em> (Gippsland waratah, Victorian waratah)</td>
<td>Bay of Plenty</td>
<td>Forest Research</td>
<td>Hosts include wide range of native and exotic shrubs and trees.</td>
</tr>
<tr>
<td><em>Omona hirta</em></td>
<td><em>Entelea arborescens</em> (whau)</td>
<td>Auckland</td>
<td>Forest Research</td>
<td>Hosts include wide range of native and exotic shrubs and trees.</td>
</tr>
</tbody>
</table>

### Extensions to distribution 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><em>Sarcostroma grevilleae</em></td>
<td><em>Grevillea sp.</em></td>
<td>Bay of Plenty</td>
<td>Forest Research</td>
<td>Other PPIN distributions include Wellington and Wanganui.</td>
</tr>
<tr>
<td>(no common name)</td>
<td>(no common name)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Spilocusa eleginea</em></td>
<td><em>Olea europaea</em> (olive)</td>
<td>Bay of Plenty</td>
<td>Forest Research</td>
<td>Other PPIN distributions include Auckland, Northland and Waikato.</td>
</tr>
<tr>
<td>(no common name)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Hylurgus ligniperda</em></td>
<td>MAF bark beetle trap</td>
<td>Southland</td>
<td>Forest Research</td>
<td>Specimen collected during wood boring and bark beetle trapping programme. This species was first recorded in New Zealand in 1974, and with this record it completes its southerly spread over all of New Zealand.</td>
</tr>
<tr>
<td>(golden haired bark beetle)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Leptomelanconium australense</em></td>
<td><em>Eucalyptus ficifolia</em> (red flowering gum)</td>
<td>Bay of Plenty</td>
<td>Forest Research</td>
<td>Recorded also from Hawkes Bay.</td>
</tr>
<tr>
<td>(no common name)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Forest records: Peter Thomson, Director MAF Forest Biosecurity, phone 04 498 9639, fax 04 498 9888, thomsonp@maf.govt.nz

**ANIMAL BIOSECURITY RECORDS 28/09/02 – 15/11/02**

No new to New Zealand records reported
**CODES OF WELFARE – Animal Welfare Act Update**

This part of the Directory section of Biosecurity is a new, regular feature. The table below is a quick guide as to the status of the various codes of welfare as they are developed under the Animal Welfare Act 1999.

<table>
<thead>
<tr>
<th>Code</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broiler Code</td>
<td>Final Code presented to Minister of Agriculture on 15 November 2002</td>
</tr>
<tr>
<td>Pig Code</td>
<td>Final Code to be presented to Minister of Agriculture on 17 March 2003</td>
</tr>
<tr>
<td>Rodeo Code</td>
<td>Public consultation completed. Final Code to be presented to Minister of Agriculture on 1 May 2003</td>
</tr>
<tr>
<td>Layer Hen Code</td>
<td>Public consultation completed. Final Code to be presented to Minister of Agriculture on 1 May 2003</td>
</tr>
<tr>
<td>Zoo Code</td>
<td>Under development. Final Code to be presented to Minister of Agriculture on 1 June 2003</td>
</tr>
<tr>
<td>Circus Code</td>
<td>Under development. Final Code to be presented to Minister of Agriculture on 1 June 2003</td>
</tr>
<tr>
<td>Commercial Slaughter Code</td>
<td>Public notification on 1 November. Submissions close on 20 December. Final Code to be presented to Minister of Agriculture on 1 April 2003</td>
</tr>
</tbody>
</table>

**Accredited reviewers for organisations with a code of ethical conduct**

Organisations with a code of ethical conduct are required to undergo a review from time to time. Reviews must be carried out by independent reviewers accredited by MAF for the purpose in accordance with section 109 of the Animal Welfare Act 1999. The following people have been accredited to carry out independent reviews:

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Email</th>
<th>Date of accreditation</th>
<th>Expiry date of accreditation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Kenneth John</td>
<td>61 Amapur Drive, Khandallah, Wellington</td>
<td>04 479 5092</td>
<td></td>
<td></td>
<td>01.07.02</td>
<td>30.06.07</td>
</tr>
<tr>
<td>Patrick Cooper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr Angenita Harding</td>
<td>AgriQuality NZ Ltd, Private Bag 3080 Hamilton</td>
<td>07 834 1777</td>
<td>07 838 5846</td>
<td><a href="mailto:hardingn@Agriquality.co.nz">hardingn@Agriquality.co.nz</a></td>
<td>29.05.02</td>
<td>28.05.07</td>
</tr>
<tr>
<td>Blanche Harding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr David Rowland Morgan</td>
<td>Landcare Research NZ Ltd, PO Box 69, Lincoln</td>
<td>03 325 6700</td>
<td>03 325 6705</td>
<td><a href="mailto:morgand@landcare.cri.nz">morgand@landcare.cri.nz</a></td>
<td>11.10.02</td>
<td>10.10.07</td>
</tr>
<tr>
<td></td>
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Exotic disease and pest emergency hotline: 0800 809 966
Animal welfare complaint hotline: 0800 327 027
www.maf.govt.nz/biosecurity