# 2.14 NEW ZEALAND

## I. GENERAL INFORMATION

Last updated: June 2009

### Overall Executive Summary

Since the last Session of the Asia and Pacific Plant Protection Organization, New Zealand has continued to develop and refine its Biosecurity system.

MAF Biosecurity New Zealand (MAF BNZ) is the division of the Ministry of Agriculture and Forestry (MAF) charged with leadership of the New Zealand biosecurity system. It encompasses facilitating international trade, protecting the health of New Zealanders and ensuring the welfare of our environment, flora and fauna, marine life and Maori resources.

In December 2006, the Director-General of MAF announced that MAF's two biosecurity businesses Biosecurity New Zealand (BNZ), and MAF Quarantine Service (MQS) would be structurally integrated. The new integrated organization commenced operations on the 1 of July 2007, and is now known as MAF Biosecurity New Zealand (MAF BNZ).

Around $NZ500 million is spent annually on biosecurity in New Zealand, with activities undertaken by central government, regional councils, industry and private landowners. It is estimated government agencies are responsible for $NZ304 million of this.

MAF have approximately 1 000 full-time and part-time staff, based across New Zealand and overseas. They include vets, scientists, quarantine inspectors, directors, managers, administrators, advisers, Detector Dogs and their handlers, analysts, investigators, legal experts, policy makers, communicators, strategist and business services staff.

Seventy five new organisms associated with plants and plant products were recorded as new to New Zealand by MAF BNZ in 2007-2008. MAF BNZ has officially responded to the presence of a number of these organisms.

New Zealand continues to develop and review import health standards based on pest risk assessment in accordance with the International Standards for Phytosanitary Measures. Since the session of the APPC, import health standards have been developed for a range of plants and plant products.

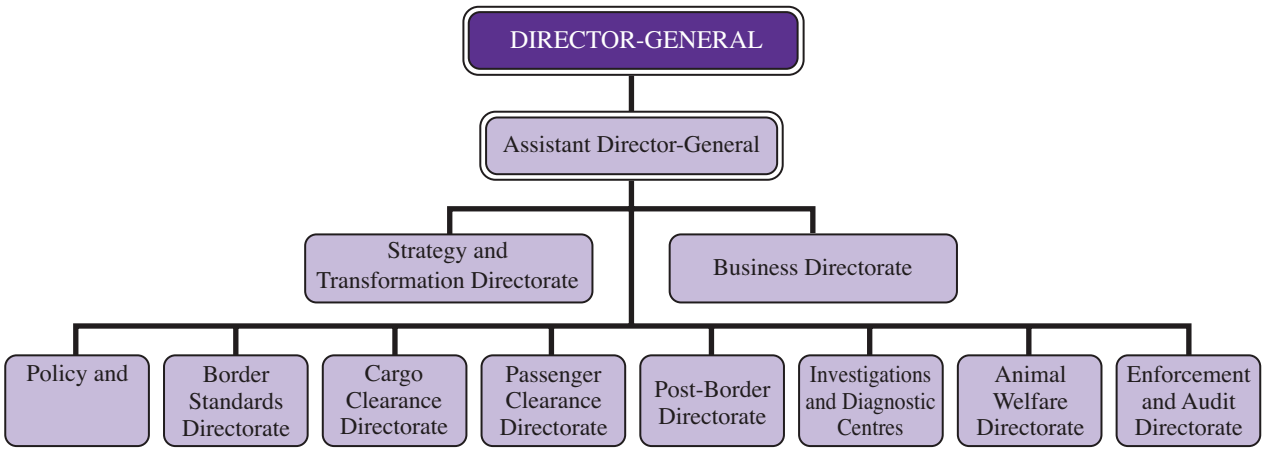
New Zealand operates an approvals framework for pesticides under the HSNO Act, developed a substance reassessment programme, and has implemented a compliance structure to support the approvals framework.

Integrated pest management continues to be an integral component of orchard management programmes in New Zealand.

New Zealand continues to be active in the development, implementation and promotion of international and regional standards.

## Plant Protection Organization Chart

Last updated: June 2009




## Important Contact Addresses

**Responsible Ministry**

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## Official International Contact Points

**National Plant Protection Organization (NPPO) Contact Point** (for IPPC/APPPC)

Director Border Standards

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Website: http://www.biosecurity.govt.nz/

Language(s): English

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**New Zealand Food Safety Authority**

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**Rotterdam Convention (PIC) DNA Industrial Chemicals and Pesticides (CP)**

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**Basel Convention Competent Authority (CA) and Focal Point**

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## II. PLANT QUARANTINE

Last updated: June 2009

### Key Legislation

*Biosecurity Act 1993* – is the principal legislation for the exclusion, eradication and management of pests and unwanted organisms in New Zealand. Biosecurity New Zealand administers this

Web source for further information: http://www.biosecurity.govt.nz/

*Hazardous Substances and New Organisms (HSNO) Act 1996* – the purpose of the HSNO Act is to achieve effective prevention or management of risks to the environment, public health and safety associated with importing or manufacturing hazardous substances and introducing new organisms (including genetically modified organisms), and their use

Web source for further information: http://www.mfe.govt.nz/ and http://www.ermanz.govt.nz/

| Policies (regarding plant quarantine) | Yes | No |
|---|---|---|
| Does phytosanitary legislation cover domestic quarantine? | x | |
| Does phytosanitary legislation cover import quarantine? | x | |
| Does phytosanitary legislation cover export quarantine? | | x |
| Does phytosanitary legislation cover living modified organisms? | x | |
| Is plant quarantine a separate organization from animal quarantine? | | x |
| Other policy initiatives (under review/progress) | | |
| Web source for further information:<br>http://www.maf.govt.nz/quarantine/<br>http://www.biosecurity.govt.nz/<br>http://www.biosecurity.govt.nz/pests/registers | | |

| Organization of Plant Quarantine Functions | Responsible Organizational Unit (Ministry/Department/Unit) |
|---|---|
| Pest Risk Assessment | MAF BNZ Border Standards Directorate |
| National standards development | MAF BNZ Border Standards Directorate |
| International notifications | MAF BNZ Policy and Risk |
| | |
| Import permits | MAF BNZ Border Standards Directorate |
| Import inspections | MAF BNZ Passenger and Cargo Directorates |
| Emergency action | MAF BNZ |
| | |
| Phytosanitary certificates | MAF BNZ Border Standards |
| Treatment of commodities | MAF BNZ Border Standards |

| Infrastructure | Years: 2007-2008 |
|---|---|
| Number of plant quarantine officers authorized to inspect/certify (exports) | |
| Number of plant quarantine officers authorized to inspect/certify (imports) | Approximately 600 |
| Total qualified personnel for plant pest risk assessment | 8 |
| Entry points (sea/air/land/mail = total) | 21 |
| Post-entry plant quarantine containment facilities | 68 |
| Number of quarantine service diagnosis laboratories | 2 |
| In-country recognized pest diagnostics capabilities (incl. universities, etc.) | |
| Number of laboratories for insect/mite (arthropod) samples | 2 |
| Number of laboratories for bacteria samples | 2 |
| Number of laboratories for virus samples | 2 |
| Number of laboratories for fungus samples | 2 |
| Number of laboratories for mycoplasma samples | 2 |
| Number of laboratories for nematode samples | 2 |
| Number of laboratories for plant/weed samples | 2 |
| Number of laboratories for other pests (snail, slug, rodents, etc.) | 2 |

| Pest Free Areas According to ISPM 10 | Responsible Organizational Unit (Ministry/Department/Unit) |
|---|---|
| Overall management | MAF BNZ Border Standards |
| – surveillance | Independent Verification Agencies |
| – management | Independent Verification Agencies |
| – certification | MAF BNZ Border Standards |

| List of target pest species and crops ISPM 4 | Number of sites in 2008 |
|---|---|
| All fruit flies attracted to Cuelure, Methyl eugenol, and Trimedlure. All fruit fly host crops. | 7 500 traps at 3 500 sites nationwide |
| | |
| List of target pest species and crops ISPM 10 | Number of sites in 2008 |
| Potato cyst nematodes (*Globodera rostochiensis* and *Globodera pallida*) | 250 |
| Oriental fruit moth (*Graphiolita molesta*) | 50 |

## Key Situation Indicators

| International Trade | | Years: 2007-2008 |
|---|---|---|
| Main Import Plant Commodities | Main countries/areas of origin | Quantity (tons) |
| Produce | Australia, USA, Asia, Pacific | N/A |
| Nursery Stock | Australia, USA, Asia, Europe, Central/ South America | N/A |
| Seed/Grains | Australia, USA, Europe, South America | N/A |
| Main Export Plant Commodities | Main destination countries | |
| Kiwifruit | Japan, Europe, USA, Taiwan, Korea, Australia | 368 521 |
| Apples | USA, Europe, Taiwan | 205 684 |
| Squash | Japan, Korea, | 109 068 |
| Flowers | Japan Europe, USA, Asia | N/A |
| Avocado | Australia | 12 358 |
| Stone fruit | Australia, Japan, Taiwan, Europe | 1 869 |
| Onions | Europe, Japan | 126 227 |
| Vegetable seed | Europe, Asia | N/A |
| Forestry products | Asia, USA, Australia | 7 772 000 $m^3$ |

| Cooperation Projects | | | |
|---|---|---|---|
| Title (Purpose/Target) | Donor | Amount | Years (start-end) |
| N/A | | | |
| | | | |
| Title of government follow-up programmes | | Amount | Years (start-end) |
| N/A | | | |
| | | | |

## Key Operation Indicators

| Institutional Functions | Years: 2007-2008 |
|---|---|
| Number of import permits issued (commercial consignments of nursery stock and seed) | 256 |
| Number of import inspections carried out | 10 000+ |
| Number of emergency phytosanitary treatments taken on imports | Approx 1 000 |
| Number of conventional phytosanitary certificates issued | 55 000 |
| Number of electronic phytosanitary certificates issued | 0 |

| Number of quarantine pests intercepted | | Years: 2007-2008 |
|---|---|---|
| Top three commodity | Top three pest/commodity | # of interceptions |
| | | N/A |
| | | |
| | | |
| | | |
| | | |

| Lists of Regulated Pests | Year of last update (2009) | Insects | Pathogens | Plants |
|---|---|---|---|---|
| Number of quarantine pests | Refer to web page below | | | |
| Number of regulated non-quarantine pests | | | | |
| Number of regulated import articles | | | | |
| Website for the above information: http://www.maf.govt.nz/biosecurity/pests-diseases/registers-lists/boric/ | | | | |

| Pest Risk Analysis | Insects | Pathogens | Plants |
|---|---|---|---|
| No. of PRA completed and documented (according to ISPM) | Refer to web page below | | |
| Web source for further information: http://www.biosecurity.govt.nz/regs/imports/ihs/risk | | | |

| Implementation of ISPM | Relevance | | | Implementation | | | | Planned/Actual Year of full implementation |
|---|---|---|---|---|---|---|---|---|
| **International Measures** | low | medium | high | none | partial | most | full | |
| ISPM 01 Principles of plant quarantine as related to international trade | | | x | | | | x | |
| ISPM 02 Guidelines for pest risk analysis | | | x | | | | x | |
| ISPM 03 Code of conduct for the import and release of exotic biological control agents | | | x | | | | x | |
| ISPM 04 Requirements for the establishment of pest free areas | | | x | | | | x | |
| ISPM 05 Glossary of phytosanitary terms | | | x | | | | x | |
| ISPM 06 Guidelines for surveillance | | | x | | | | x | |
| ISPM 07 Export certification system | | | x | | | | x | |
| ISPM 08 Determination of pest status in an area | | | x | | | | x | |
| ISPM 09 Guidelines for pest eradication programmes | | | x | | | | x | |
| ISPM 10 Requirements for the establishment of pest free places of production and pest free production sites | | | x | | | | x | |
| ISPM 11 Pest risk analysis for quarantine pests | | | x | | | | x | |
| ISPM 12 Guidelines for phytosanitary certificates | | | x | | | | x | |
| ISPM 13 Guidelines for the notification of noncompliance and emergency action | | | x | | | | x | |
| ISPM 14 The use of integrated measures in a systems approach for pest risk management | | | x | | | | x | |
| ISPM 15 Guidelines for regulating wood packaging material in international trade | | | x | | | | x | |
| ISPM 16 Regulated non-quarantine pests: concept and application | | | x | | | | x | |
| ISPM 17 Pest reporting | | | x | | | | x | |
| ISPM 18 Guidelines for the use of irradiation as a phytosanitary measure | | | x | x | | | | N/A |
| ISPM 19 Guidelines on lists of regulated pests | | | x | | | | x | |
| ISPM 20 Guidelines for a phytosanitary import regulatory system | | | x | | | | x | |
| ISPM 21 Pest risk analysis for regulated non-quarantine pests | | | x | | | | x | |
| ISPM 22 Requirements for the establishment of areas of low pest prevalence | | | x | | x | | | N/A |
| ISPM 23 Guidelines for inspection | | | x | | | | x | |
| ISPM 24 Guidelines for the determination and recognition of equivalence of phytosanitary measures | | | x | | | | x | |
| ISPM 25 Consignments in transit | | | x | | | | x | |
| ISPM 26 Establishment of pest free areas for fruit flies (Tephritidae) | | | x | | | | x | |
| ISPM 27 Diagnostic protocols for regulated pests | | | x | | | | x | |
| ISPM 28 Phytosanitary treatments for regulated pests | | | x | | | | | |
| ISPM 29 Recognition of pest free areas and areas of low pest prevalence | | | | | | | | |
| ISPM 30 Establishment of areas of low pest prevalence for fruit flies (Tephritidae) | x | | | x | | | | |
| ISPM 31 Methodologies for sampling of consignments | | | x | | x | | | |

Comments/Constraints

* Third party agencies utilised to verify compliance of export product

## III. SURVEILLANCE, PEST OUTBREAKS AND INVASIVE SPECIES MANAGEMENT

Last updated: June 2009

### Key Legislation

*Biosecurity Act 1993*

*Hazardous Substances and New Organisms (HSNO) Act 1996*

Web source for further information: http://www.biosecurity.govt.nz/

| (regarding invasive/migratory species management) | Yes | No |
|---|---|---|
| National strategy to control serious field pest outbreaks? | | x |
| National strategy to control migratory or periodically occurring pests? | | x |
| National strategy to eradicate serious newly invaded exotic pests? | x | |
| Other policies:<br>• New Zealand Biosecurity Strategy http://www.biosecurity.govt.nz/files/bio-strategy/biostrategy.pdf<br>• Policy for MAF's Responses to Risk Organisms (July 2008)<br>http://www.biosecurity.govt.nz/files/biosec/consult/response-policy-risk-organisms.pdf | | |
| Web source for further information: http://www.biosecurity.govt.nz/ | | |

| Organization of Outbreak Management Functions | Responsible Organizational Unit (Ministry/Department/Unit) |
|---|---|
| *Field/Storage Pest Outbreaks* | |
| Response strategy/plans | Pest outbreaks are generally managed by the Industry or the Agency most affected. MAF Biosecurity New Zealand may take a lead or coordinating role for National Interest Pests |
| | |
| | |
| *Migratory Pest Outbreaks* | |
| Response strategy/plans | N/A |
| Surveillance | |
| | |
| *New Exotic Pest Eradication* | |
| Response strategy/plans | MAF Biosecurity New Zealand with the support of affected industries and/or other central/local government agencies |
| | |
| Control/eradication | |
| | |
| Reporting to bilateral or international organizations | MAF Biosecurity New Zealand |

| Infrastructure | Years: 2007-2008 |
|---|---|
| Number of designated staff for **surveillance** of field pests of national importance | 3 FTEs within MAF BNZ Surveillance Group to coordinate National Programmes for pests and diseases affecting Plant Health.<br>**Note:** Field operations are generally contracted out and the number of staff at anyone time will depend on what programmes are currently being run. |
| Number of designated staff for **surveillance** of migratory and periodically occurring pests | |
| Number of designated staff for **surveillance** of invasive species | |
| Number of designated staff for **control** of field pests of national | 15 FTEs within MAF BNZ Response (8 FTE) and Incursion Investigation Groups (6 FTE) to coordinate response programmes and operations to exotic plant pest/disease incursions.<br>6 FTEs within MAF BNZ Pest Management Group to coordinate programmes for National Interest Pests (already established in New Zealand).<br>**Note:** Field operations are generally contracted out and the number of staff at anyone time will depend on what programmes are currently being run. |
| Number of designated staff for **control** of migratory and periodically occurring pests | |
| Number of designated staff for **eradication** of invasive species | |

## Key Situation and Operation Indicators

| New exotic species found established in country | Insects | Pathogens | Weeds |
|---|---|---|---|
| Total number for 2007:29 | 8 | 21 | 0 |
| Total number for 2008:46 | 10 | 36 | 0 |
| Total number on record: | 28 | 57 | 0 |

Numbers represent cases that have been assessed and declared established in New Zealand. Some of these may represent endemic species or species that have likely been present in the country for decades, but just never before been detected.

| Eradication or internal quarantine actions taken against economically important species | | | |
|---|---|---|---|
| Name of species | *Ophiostoma ulmi* (Dutch Elm Disease) | *Uraba lugens* (Gum Leaf Skeletoniser) | *Coptotermes acinaciformis* (subterranean termites) |
| Year of first discovery | 1989 | 1993 (Tauranga)<br>1999 (Auckland) | 2006 (Nelson)<br>2007 (Auckland) |
| Pathway | Vector insect carrying spores of the fungus in elm wood material (e.g. packaging, dunnage, pallets) with bark present | Unknown | Railway sleepers |
| Location of first discovery | Auckland | Tauranga, Auckland | Nelson, Auckland |

| | | | |
|---|---|---|---|
| Area affected [ha] | Parts of Greater Auckland (Waitakere City, Auckland City, North Shore City, Manukau City, Papakura District) | Greater Auckland (20 000 ha), Waikato, Bay of Plenty | Nelson – 2 neighbouring residential properties<br>Auckland – planter boxes and shed on rural property |
| Area treated [ha] | All | None | Nelson – the 2 affected properties plus 4 adjacent properties<br>Auckland – affected property |
| Control method | Removal of diseased elms supported by surveillance and vector beetle trapping | Research into biological and chemical control methods | Hexaflumuron bait stations, surveillance of wider area, and (Auckland) netting to contain alates |
| Expenditure (NZD) (01 Jan 07 – 31 Dec 08) | NZ$155 968 | No spend | NZ$61 679 |
| Status | Under official control – transitioning to local control | Established | Under eradication |

| **Eradication or internal quarantine actions taken against economically important species** | | | |
|---|---|---|---|
| Name of species | Didymo | *Solenopsis invicta* (Red Imported Fire Ant) | Dampwood termites |
| Year of first discovery | 2004 | 2006 | 2007 |
| Pathway | Suspect North America | Suspect USA | Australia – suspect historically-imported hardwood timber |
| Location of first discovery | Southland | Napier | Kaipara Flats |
| Area affected [ha] | 122 waterways in the South Island (March 2009) | Single nest found on property of forest products processing plant | Likely to be one or two isolated nests (not yet located) |
| Area treated [ha] | | c.750 ha | |
| Control method | Social marketing, potential GEMEX tool, cleaning methods, surveillance, controlled area | Surveillance, movement controls, application of fire ant insecticidal baits | Surveillance |
| Expenditure (NZD) (01 Jan 07 – 31 Dec 08) | NZ$3.8 million | NZ$4.9 million | NZ$21 101 |
| Status | Under official control | Under eradication | Under investigation |

| Eradication or internal quarantine actions taken against economically important species | | | |
|---|---|---|---|
| Name of species | Candidatus Liberibacter species (Tomato Bacteria Like Organism) | | |
| Year of first discovery | 2008 | | |
| Pathway | Vectored by insect pest, the tomato potato psyllid (Bactericera cockerelli) The vector is already established in New Zealand | | |
| Location of first discovery | Commercial Tomato Glasshouses Auckland | | |
| Area affected [ha] | 20 sites throughout New Zealand including tomato/ capsicum glasshouses, outdoor potato fields and tamarillo orchards | | |
| Area treated [ha] | | | |
| Control method | Commercial growers and exporters are managing the psyllid through an industry management programme. Social marketing to raise home gardener awareness | | |
| Expenditure (NZD) (01 Jan 07 – 31 Dec 08) | NZ$250 000 | | |
| Status | Established | | |

| Eradication or internal quarantine actions taken against economically important species | | | |
|---|---|---|---|
| Name of species | *Salvina molesta* Salvinia | *Eichhornia crassipes* Water hyacinth | *Sorghum halepense* Johnson grass |
| Year of first discovery | 1963 | 1950 | 1945 |
| Pathway | Unknown | Unknown | Possibly contaminated seed or feed |
| Location of first discovery | Western Springs Lake, Auckland | Hauraki Plains | Napier |
| Area affected [ha] | Limited | Limited | Limited |
| Area treated [ha] | Limited | Limited | Limited |

| | | | |
|---|---|---|---|
| Control method | Physical removal; herbicides | Physical removal; herbicides | Physical removal; herbicides |
| Expenditure (NZD) (01 Jan 07 – 31 Dec 08) | NZ$299 151 (includes Salvinia, Water hyacinty, Johnson grass & Cape Tulip – *refer next table*) | | |
| Status | Under Eradication | Under Eradication | Under Eradication |

| **Eradication or internal quarantine actions taken against economically important species** | | | |
|---|---|---|---|
| Name of species | *Moraea flaccida* *(syn. Homeria collina)* Cape tulip | *Ehrharta villosa* pyp grass | *Phragmites australis* phragmites |
| Year of first discovery | 1944 | Mid 1970s | 1950 |
| Pathway | Possibly ornamental plantings | Deliberate introduction for sand dune stabilization | Unknown |
| Location of first discovery | Hamilton Bay, French Pass | Turakina Beach, (south of Wanganui) and Blackhead, Hawkes Bay | Napier |
| Area affected [ha] | Limited | Limited | Limited |
| Area treated [ha] | Limited | Limited | Limited |
| Control method | Physical removal; herbicides | Physical removal; herbicides | Physical removal; herbicides |
| Expenditure (NZD) (01 Jan 07 – 31 Dec 08) | *(refer pervious table)* | NZ$55 393 | NZ$29 211 |
| Status | Under Eradication | Under Eradication | Under Eradication |

| **Eradication or internal quarantine actions taken against economically important species** | | | |
|---|---|---|---|
| Name of species | *Hydrilla verticillata* hydrilla | *Ceratophyllum demersum* hornwort | *Bryonia cretica* subsp *dioica* white bryony |
| Year of first discovery | 1963 | 1961 (North Island) 2002 (South Island) | 1990 |
| Pathway | Unknown | Aquaria trade, garden trade, deliberate | Unknown |
| Location of first discovery | Lake Tutira, Hawkes Bay | Napier/Hastings (NI) Moutere Stream near Motueka (SI) | Rangatikei |
| Area affected [ha] | Approx. 164 ha | Extensive in NI 2 small localised sites (SI) | Approx 10.5 ha |
| Area treated [ha] | Approx. 164 ha | 2 small localised sites (SI) | Limited |
| Control method | Physical removal; herbicides; grass carp | Aquatic herbicides | Physical removal; herbicides |
| Expenditure (NZD) (01 Jan 07 – 31 Dec 08) | NZ$841 574 | NZ$56 709 | NZ$282 790 |
| Status | Under Eradication | Under Eradication (in South Island only) | Under Eradication |

| Eradication or internal quarantine actions taken against economically important species | | | |
|---|---|---|---|
| Name of species | *Tricoglossus haematodus* rainbow lorikeet | *Zizania latifolia* Manchurian wild rice | Kauri PTA |
| Year of first discovery | Early 1990s (in the wild) | 1906 | 1950 |
| Pathway | Deliberate releases of captive cage birds | Ballast | Unknown |
| Location of first discovery | North Shore, Auckland | Northern Wairoa River, Northland | Great Barrier Island |
| Area affected [ha] | Widely distributed in the Auckland area (150-200 individuals by 1999) Whole of country | ca.338 ha (Northland) Various limited outlier sites (Northland; Auckland; Waikato; Wellington) | Northland, Auckland, Great Barrier |
| Area treated [ha] | Auckland – maintain zero density. Approx 10-30 birds escaping each year are controlled. Reports of populations outside Auckland investigated | Outlier sites treated, in all regions | Control tools in research |
| Control method | Traps, mist nets and hand nets | Physical removal; herbicides | Pathway management only. Hygiene and vector control. |
| Expenditure (NZD) (01 Jan 07 – 31 Dec 08) | NZ$44 591 | NZ$249 538 | NZ$41 174 |
| Status | Feral population, control to zero density | Containment (large site) Eradication (outlier sites) | Long term management |

| Pest outbreak actions | Outbreak 1 | Outbreak 2 | Outbreak 3 |
|---|---|---|---|
| Name of species | N/A | | |
| Year of first discovery | | | |
| Area affected [ha] | | | |
| Estimated damage $ | | | |
| Area treated by government [ha] | | | |
| Expenditures by government [US$] | | | |
| Control method | | | |
| More information | | | |

## Progress and Constraints

**Main Progress in Recent Years (legislation, policies, infrastructure, investments, training, etc.)**

**SURVEILLANCE**

- MAF BNZ has developed a Biosecurity Surveillance Strategy. The strategy document has completed final public consultation and final approval is being sought. The strategy develops a cohesive vision and consistent principles and approaches for the future biosecurity surveillance system. Now that the main principles have been agreed an implementation plan is being prepared to establish a path that will successfully move New Zealand from the current state to the preferred future biosecurity surveillance system.

**RESPONSE**

- A new MAF BNZ Response Policy has been adopted and has led to the development of a new generic Biosecurity Response Model. The Biosecurity Response Model includes web-based process maps, supporting procedures, tools and templates, and a people capability framework. The model has been progressively implemented since mid 2008 with full implementation expected by 30 June 2009.
- MAF is continuing to work towards a Government-industry agreement for joint decision-making and resourcing. It would cover biosecurity readiness (including surveillance) and response. Benefits MAF hopes to achieve from an agreement include:
  - better planning, resourcing and delivery of biosecurity readiness and response activities;
  - more accurate signals from industries on their priorities (they will identify what they most want to invest in);
  - more certainty on whether and how the govt will be involved in readiness/response activities that benefit industries; and
  - incentives for all parties to mitigate biosecurity risks within their control.

  If Government and industries decide to proceed, an agreement could be in place by December 2011. However, timing will depend on how long it takes to negotiate a final agreement, put in place levies to secure resource contributions from industry, and amend legislation to enable the agreement to

- Response Foundations project. This project is to improve Response Readiness. There are two key streams of work. (1) Development of 3 year work plan that once implemented will take MAF BNZ to a desired future state of response readiness. The 3-year plan is expected to be complete and ready for implementation from 1 July 2009. (2) Implementing a new model for outsourcing operational response capability. MAF BNZ is moving to contract a single Master Supplier to manage response operations across all sectors for MAF BNZ, to develop and maintain a network capability to manage response operations, and to be a resource as part of this network for response operations into the future. The transition from the current state to the new state will start in July 2009 and will run over a period of 2-3 years.

**PEST MANAGEMENT**

- Eleven National Interest Pests were identified and have MAF-led responses underway. The goal for all for but three of the responses is total eradication from New Zealand, with containment/exclusion and zero density for the other three. Delivery of the responses is managed through partnerships with other biosecurity agencies.
- Pest species that are being managed on a long term basis include Didymo and Gum leaf skeletoniser. The recent outbreak of Phytophthera Taxon Agathis has affected the iconic Kauri tree (*Agathis* ).

**Main Constraints (personnel, infrastructure, administrative, operational, training, etc.)**

## IV. PEST MANAGEMENT

Last updated: June 2009

### List of Key Legislation/Regulations/Rules for Pest Management

- *Biosecurity Act 1993*
- *Hazardous Substances and New Organisms (HSNO) Act 1996*

*Agricultural Compounds and Veterinary Medicines (ACVM) Act 1997* – controls agricultural compounds and veterinary medicines used in association with animals and plants, and is a *companion measure to the Hazardous Substances and New Organisms (HSNO) Act, Animal Products Act (1999) Diary Industry Act (1952), Food Act (1981), Animal Welfare Act (1993) and Biosecurity Act (1993)*

Web source for further information: http://www.nzfsa.govt.nz/

| (regarding pest management) | Yes | No |
|---|---|---|
| Do you have policies encouraging organic or low-pesticide use production | N/A | |
| Is IPM specifically mentioned in laws or policy documents? | N/A | |
| Do you have official Good Agricultural Practice (GAP) or any other relevant food safety (ecofood, etc.) standards for pest management? | N/A | |
| Is pest management extension separate from general extension? | N/A | |
| Other policies: (subsidies, production inputs, etc.) | | |

| Organization of Plant Protection Functions | Responsible Organizational Unit (Ministry/Department/Unit) |
|---|---|
| Policy development | N/A |
| Pest management research | |
| Control recommendations | |
| Pest management extension | |
| | |
| | |

| Infrastructure | Years: 2007-2008 |
|---|---|
| Number of technical officers for pest management | N/A |
| Number of central, regional, provincial or state offices | N/A |
| Number of district and village level field offices | N/A |
| Number of field/extension agents for pest management advice | N/A |
| Number of field/extension agents trained in IPM-FFS facilitation | N/A |
| Number of government biocontrol production/distribution facilities | N/A |
| Number of government biopesticide production/distribution facilities | N/A |
| Number of general extension staff involved in pest management | N/A |
| Number of designated plant protection technical officers for extension | N/A |

## Key Situation and Operation Indicators

| Pest Management | Yes | No |
|---|---|---|
| Does the country have a National IPM Programme?<br>*If yes, give Name and Address of IPM Programme:* | | x |
| Does the country have specific IPM extension programmes?<br>*If yes, in which crops?* | x | |
| Does the country have specific IPM research programmes?<br>*If yes, in which crops?* | x | |
| Does the country have specific GAP extension programmes?<br>*If yes, in which crops?* | x | |
| Does the country have specific GAP research programmes?<br>*If yes, in which crops?* | x | |

| **Market shares** (estimated value, volume or area under control) | Years: 2007-2008 |
|---|---|
| Size of chemical pest control market | N/A |
| Size of biopesticides market | N/A |
| Size of biological control agents market | N/A |

| Major pest control requiring crops (requiring most pesticide applications) | 1st | 2nd | 3rd |
|---|---|---|---|
| Affected crop | N/A | | |
| Name(s) of pest(s) | N/A | | |
| Estimated crop loss | N/A | | |
| Affected area | N/A | | |
| Number of pesticide applications or amount of pesticide used | N/A | | |
| Government action taken | N/A | | |

| Cooperation Projects | | | |
|---|---|---|---|
| Purpose/Target | Donor | Amount | Years (start-end) |
| N/A | | | |
| | | | |
| Purpose/Target of government follow-up programmes | | Amount | Years (start-end) |
| N/A | | | |
| | | | |

| Pest Management Extension | Years: 2007-2008 |
|---|---|
| Number of farmers trained in IPM during the year | N/A |
| Number of IPM-FFS conducted during the year | N/A |
| Number of farmers trained in GAP standards during the year | N/A |
| Area under IPM/low pesticide management [ha] | N/A |
| Area under organic/pesticide-free management [ha] | N/A |
| Crops in which IPM or other ecology friendly programmes are successfully implemented: N/A | |
| Crops grown organic/pesticide-free: N/A | |

## Progress and Constraints

| **Main Progress in Recent Years** (legislation, policies, infrastructure, investments, training, etc.) |
|---|
| N/A |
| **Main Constraints** (personnel, infrastructure, administrative, operational, training, etc.) |
| N/A |

## V. PESTICIDE MANAGEMENT

Last updated: June 2009

### List of Key Legislation/Regulations

- *Resource Management Act 1993 (RMA)* (administered by the Ministry for the Environment

  Web source for further information: http://www.mfe.govt.nz/
- *Hazardous Substances and New Organisms (HSNO) Act 1996* (administered by MfE)
  Web source for further information: http://www.mfe.govt.nz/
  and http://www.ermanz.govt.nz/
- *Agricultural Compounds and Veterinary Medicines (ACVM) Act 1997*

Web source for further information: http://www.nzfsa.govt.nz/

| (regarding pesticide management) | Yes | No |
|---|---|---|
| Do you have national pesticide reduction targets?<br>*If yes, what is the target:*_____ | | x |
| Have you ratified the Rotterdam (PIC) Convention? | x | |
| Have you ratified the Stockholm (POP) Convention? | x | |
| Have your ratified the Basel Convention? (hazardous wastes) | x | |
| Have your ratified the Montreal Protocol? (MeBr phasing-out) | x | |
| Have you reported the observance of the Code of Conduct to FAO according to Art. 12 of the Code? | x | |
| Have you adopted Good Laboratory Practices (GLP)? | x | |
| *Pesticide Registration* | | |
| Do you require pesticides to conform to relevant FAO or WHO specifications? | x | |
| Do you allow the "me-too" registration and sale of generic pesticides? | x | |
| Do you require data on product equivalence for generic registration? | x | |
| Do you conduct country-specific risk assessments for… | | |
| occupational risks? | x | |
| consumer risks? | x | |
| environmental risks? | x | |
| Have you adopted the Global Harmonized System (GHS) for pesticides hazards evaluation and labelling? | x | |
| Do you accept evaluation results from other countries? | | x |
| Do you accept field studies conducted in other countries? | x | |
| Do you require environmental fate studies? | x | |
| *Incentives/Disincentives* | | |
| Do you have a special tax on pesticides to cover externality costs? | | x |
| Do you subsidize or provide low-cost pesticides? | | x |
| Do you subsidize or provide low-cost biopesticides? | | x |
| | | |
| Web source for further information: http://www.nzfsa.govt.nz/ | | |

| Organization of Plant Protection Functions | Responsible Organizational Unit (Ministry/Department/Unit) |
|---|---|
| | • New Zealand Food Safety Authority (ACVM Act) – efficacy and (Food Act) MRLs<br>• Ministry for the Environment (HSNO Act/RMA) – human and environmental health and safety |
| | • New Zealand Food Safety Authority and Environmental Risk Management Authority (ERMA New Zealand) |
| Licensing of shops | |
| Licensing of field applicators | • ERMA New Zealand |
| Enforcement/inspections | • New Zealand Food Safety Authority (ACVM & Food Acts)<br>• Department of Labour (DoL) (HSNO Act)<br>• Regional Councils and Territorial Authorities (RMA/HSNO Act) |
| Development of pesticide use recommendations | • NZFSA<br>• ERMA New Zealand |
| Safe use training/extension | • ERMA New Zealand (in association with ITOs) |
| Food residue monitoring | • New Zealand Food Safety Authority |
| Environmental monitoring | • Regional Councils |
| Health monitoring | • Ministry of Health, District Health Boards |
| *Other Stakeholders:* | |
| Pesticide Industry Association | • AGCARM<br>• ARPPA |
| Civil Society Organizations | Includes:<br>• Pesticides Action Network<br>• Toxics Action Group<br>• Greenpeace<br>• Research providers |

| Infrastructure | Years: 2007-2008 |
|---|---|
| Number of registration officers | NZFSA (20), ERMA (15) |
| Number of enforcement officers | NZFSA (1) plus MAF Border Inspectors (604), DoL (8) |
| Number of department quality control laboratories | N/A |
| Number of quality control laboratory personnel | N/A |
| Number of department residue analysis laboratories | N/A |
| Number of residue laboratory personnel | N/A |

## Key Situation Indicators

| Pesticide Trade: 2007-2008 | Tons | US$ '000 Value |
|---|---|---|
| [1] | N/A | N/A |
| Manufacture | N/A | N/A |
| [1] | N/A | N/A |
| Domestic Use/Sales[2] | 4 683 | N/A |
| **Pesticide Use Profile: 2007-2008** | **Tons (a.i./formulation to be specified)** | **US$ '000 Value** |
| | | |
| Chem. Insecticides | 252 | N/A |
| Chem. Fungicides | 1 108 | N/A |
| Chem. Herbicides | 2 868 | N/A |
| Chem. Others: e.g. molluscicide, acaricide | 164 | N/A |
| e.g. Avamectrin, Bt, Neem | Included in chemicals above | N/A |
| Other purposes | N/A | |
| | | |

NZ Statistics for 2005/06 (figures are for all pesticides, including disinfectants, rodenticides etc.).
Based on Agcarm sales data 2005/06 for active ingredient only

## Post Registration Monitoring

| Testing, Quality Control and Effects in the Field | Yes | No |
|---|---|---|
| Do you have significant problems with low-quality pesticides in the market? | | x |
| Do you have significant problems with pesticide resistance? | | x |
| Do you have a list of pesticides under close observation for problems | x | |
| Source for more information: http://www.ermanz.govt.nz/hs/reassessment/index.html | | |

| Health and Environmental Information | Yes | No |
|---|---|---|
| Do you maintain data on pesticide poisoning cases? | x | |
| Do you have a system to monitor pesticide residues in food? | x | |
| Do you have a system to monitor pesticide residues in the environment? | | x |
| Do you have significant problems of environmental contamination from pesticides? | | |
| Do you have data on pesticides effects on wildlife and ecosystems? | x | |
| Source for more information: – | | |

| Pesticide Disposal | Yes | No |
|---|---|---|
| Do you have system to collect and safely dispose of used containers and small quantities of left-over pesticides? | x | |
| Do you have an inventory of outdated and obsolete pesticides in the country? (e.g. banned and no longer traded, but still in storage) | x | |
| Do you have illegal trade in pesticides? If yes: what is the estimated amount: _____ | | x |

## Key Operation Indicators

| Registration/Regulation/Monitoring | Years: 2007-2008 | |
|---|---|---|
| | a.i.* | Trade Name |
| Number of registered pesticide products | 328 | 1 128 |
| Number of registered biopesticides (Avamectrin, Bt, Neem, etc.) | See above | See above |
| Number of restricted-use pesticides/formulations | | |
| Number of banned pesticides | 11 | |
| Number of licensed outlets | N/A | |
| Number of licensed field applicators (professional and/or farmers) | ~ 40 000 | |
| Number of licensing violations reported during year | N/A | |
| Number of quality control analyses conducted during year | N/A | |
| Number of food samples analyzed for pesticide residues during year | N/A | |
| Number of samples exceeding MRL | N/A | |
| Number of environmental samples analyzed for pesticide residues | N/A | |

* active ingredient

| Pesticides Restricted in Recent Years | |
|---|---|
| Year | Name of active ingredient or hazardous formulation |
| | N/A |
| | |

| Pesticides Banned in Recent Years | |
|---|---|
| Year | Name of active ingredient |
| 2009 | Endosulfan |
| | |

| Cooperation Projects | | | |
|---|---|---|---|
| Purpose/Target | Donor | Amount | Years (start-end) |
| N/A | | | |
| | | | |
| Purpose/Target of government follow-up programnes | | Amount | Years (start-end) |
| N/A | | | |
| | | | |

## Progress and Constraints

| Main Progress in Recent Years (legislation, policies, infrastructure, investments, training, etc.) |
|---|
| |
| **Main Constraints (personnel, infrastructure, administrative, operational, training, etc.)** |
| • Funding implications to implement pesticide management and risk reduction strategies in a quicker |

## VI. ADDITIONAL ISSUES OF INTEREST

Last updated: June 2009

| Genetically Modified Crops | |
|---|---|
| Name of GMO Crop | Area under Cultivation [ha] |
| No GMO crops are commercially grown in New Zealand | 0 |