



Australian Government

Department of Agriculture, Fisheries and Forestry

Submission to the

**Senate Environment, Communications, Information Technology and Arts
References Committee inquiry into:**

**The regulation, control and management of invasive species and the
Environment Protection and Biodiversity Conservation Amendment
(Invasive Species) Bill 2002.**

Introduction

The purpose of this submission is to provide the Committee with an overview of the nature and extent of the involvement by the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) in the regulation, control and management of invasive species.

DAFF has a significant involvement and responsibility with regard to invasive species. The submission summarises this involvement, within a framework of the relevant international and Commonwealth-State/Territory arrangements. Recognising that the Committee may need more detailed information, DAFF is prepared to provide additional material in response to requests by the Committee.

The prime focus of the submission is on Terms of Reference (1)(c) and 1(d), as they apply to pests of Australia's agriculture, fisheries and forestry industries. A companion submission by the Bureau of Rural Sciences¹ addresses Terms of Reference 1 (a) and 1(b) and focuses on principles and technical aspects of pest control, regulation and management that may apply to any invasive species. DAFF understands that the Department of the Environment and Heritage will be providing a submission focusing on, but not limited to, its responsibilities regarding the biodiversity-related aspects of invasive species, and the *Environment Protection and Biodiversity Conservation Act 1999*.

Rather than specifically addressing the Inquiry's terms of reference, this submission provides the Committee with information on the Department's role, the extent of its responsibilities, and its approach to invasive species. The submission demonstrates that current arrangements are well established, operationally tested, and continuously updated.

Australia's approach to invasive species is consistent with international agreements and best practice. Within Australia, invasive species have been addressed on a whole of government basis, built around a risk-management approach to pre-border and border

¹ BRS is a scientific agency within the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF). It has been involved since the early 1990s in providing Commonwealth advice on invasive and other pest species and their management.

control, and incursion management. This means that a large number of participants must be involved, so the organisational arrangements are necessarily complex.

The four diagrams attached to this submission provide a graphical summary of how these arrangements cover animal, plant and marine pests, and weeds. The diagrams show how the arrangements operate across the various levels of government, and across the key areas of policy, operational activity, and research.

Most importantly, they show how in the operational area, border protection, emergency/incursion arrangements and management of established pests are coordinated, and supported on the one hand by policy arrangements, and on the other by scientific and technical advice. They also highlight the close coordination between the Australian Government, State and Territory Governments, industry, and scientific and technical advisors, and show how national and state/territory arrangements are harmonised with each other, and with international arrangements.

The primary responsibilities for DAFF are in the area of quarantine and emergency response. This submission highlights:

- The rationale and purpose for DAFF involvement, in particular the Constitutional and legislative responsibilities of the Commonwealth and DAFF in relation to the management and control of invasive species of relevance to Australia's agricultural, fisheries and forestry industries, and
- The comprehensive nature of those arrangements, including the Department's involvement in Australia's approach to invasive species, including:
 - The range of international considerations relevant to the regulation, control and management of invasive species and how DAFF ensures these responsibilities are fulfilled in a manner that ensures the risks of incursions are minimised consistent with our World Trade Organisation obligations;
 - Pre-border and border controls to effectively minimise the risk of invasive pest species being introduced to the Australian environment and procedures in place to ensure biodiversity considerations are taken into account in this process;
 - The development and implementation of appropriate national risk management systems to ensure emergency responses to incursions of invasive pests are undertaken in the most effective and efficient manner;
 - The Department's role in working with State and Territory governments to assist them with their responsibilities in relation to the management of established invasive species; and
 - The level of interaction with other Commonwealth, State/Territory government agencies and industry stakeholders involved in these activities to ensure the arrangements for the regulation, control and management of invasive species are comprehensive, regularly updated and effectively engage all stakeholders.

This submission also notes the outcomes of recent reviews undertaken by the Australian National Audit Office and the Joint Committee of Public Accounts and Audit into the effectiveness of DAFF's activities in relation to the regulation, control and management of the invasive species within its area of responsibility, ie pests of primary industries.

Context

Invasive pest species and diseases have the capacity to do serious damage to Australia's environment and economy. They could significantly reduce the profitability,

competitiveness and sustainability of Australian agricultural, fisheries, food and forestry industries. Because of our geographic isolation and past efforts to minimise the risks of incursions, Australian industries are currently relatively free from many serious diseases and invasive pest species.

Most of DAFF's efforts and responsibilities are aimed at exotic invasive species and protection and response (as distinct from established pests). Under current Administrative Arrangements Orders, DAFF has three major areas of responsibility: agricultural, pastoral, fishing, food and forest industries; water, soils and other natural resources; and quarantine. Reflecting these responsibilities, the maintenance of Australia's current pest and disease status represents a significant DAFF activity. This includes managing the development and implementation of:

- International agreements and undertakings;
- Pre-border and border monitoring, detection and control arrangements; and
- National policies and programs to manage emergency pest incursions.

State and territory governments as well as industry and the wider community have the prime responsibility for the management of established pests, so DAFF is also involved in the management of these species to the extent that there is a significant and discernable national interest.

International Considerations

Australia is involved in international activities regarding invasive species arrangements to ensure that our procedures conform with current international standards and best practice and importantly do not jeopardise our trade in primary products. For DAFF, this involves dealing with:

- The World Trade Organization *Agreement on the Application of Sanitary and Phytosanitary Measures*;
- The United Nations Food & Agriculture Organisation *International Plant Protection Convention*;
- The Office International des Epizooties (the world animal health organisation) to the extent that it deals with animal diseases and invertebrate pests that infect animals or that act as vectors for microbial diseases of animals, and
- International Maritime Organisation - Marine Environment Protection Committee in relation to invasive marine pests.

Border Protection

The Department's involvement in pre-border and border protection is designed to fulfil the Commonwealth's constitutional responsibilities in relation to quarantine matters as well as the provisions of the *Quarantine Act 1908*.

The Department's approach to delivering an effective border protection regime involves three key elements:

- Assessing risks and identifying the policies and measures necessary to address those risks (through the Import Risk Analysis and Weed Risk Assessment processes) managed by Biosecurity Australia;
- Implementing those measures at the border (Border Protection) managed by the Australian Quarantine and Inspection Service (AQIS); and

- Developing surveillance systems and complementary measures in neighbouring countries (Northern Australia Quarantine Strategy), together with off-shore and overseas inspections, managed by AQIS.

The objective of Australian Government biosecurity policies is to prevent or control the entry, establishment or spread of pests and diseases that will or could cause significant damage to human beings, animals, plants, other aspects of the environment, or economic activities. For animal and plant biosecurity, import risk analysis identifies the pests and diseases relevant to an import proposal, assesses the risks posed by them and, if those risks are unacceptable, specifies what measures should be taken to reduce those risks to an acceptable level.

The Quarantine Act requires the Director of Animal and Plant Quarantine to ensure that environmental factors are considered in the decision making process. A Memorandum of Understanding is in place between Biosecurity Australia and Environment Australia to facilitate input of advice on environmental matters into Australia's import risk analysis process.

Import risk analyses are conducted in accordance with the administrative process detailed in the Import Risk Analysis Handbook (copy attached) and conform with Australia's international obligations.

The Weed Risk Assessment (WRA) process operates in parallel to the IRA and is designed to enable non-invasive plant species to be imported, while preventing the importation of potentially invasive species new to Australia. Clients of the WRA process include wholesale nurseries, horticultural companies, agricultural suppliers, private individuals, botanic gardens, universities, researchers, and state and territory governments.

The WRA process takes into account a wide range of factors including the domestication of the species, climate suitability, distribution of the species, weed status elsewhere in the world, undesirable traits, type of plant, reproductive methods, propagatable dispersal mechanisms and persistence attributes.

There are three outcomes of the WRA assessment —the species is accepted, rejected or further evaluated. If the result is to accept, then the species is permitted importation if standard quarantine requirements are satisfied (no quarantine pests or diseases are identified during the WRA). If the result is to reject, importation of the species is prohibited (due to its high potential to become a weed of agriculture and/or the environment) and the species can only be imported with a permit and used under strict quarantine conditions.

The results of the IRA and WRA processes are operationalised by AQIS. AQIS' quarantine related operations are organised into eight major programs that provide a comprehensive operational system to prevent or control the entry, establishment or spread of pests and diseases.

Ballast water is a recognised mechanism for the translocation of marine pests, when ballast water sourced from overseas is discharged in Australia. A risk assessment process, the Ballast Water Decision Support System is used to calculate the risks of transfer. Use of the system is not mandatory, but if it is not used, ships must exchange ballast water on the high seas. Compliance is checked by AQIS staff.

Pest Incursion

A pest incursion occurs when an exotic pest, disease or weed is detected within national quarantine barriers for the first time and has spread beyond the recognised limits of quarantine operations. DAFF, in conjunction with state/territory and industry stakeholders has developed arrangements to manage pest and disease incursions that have the potential to impact upon Australia's primary industries. These arrangements are intended to provide the capacity for early and decisive intervention. The four diagrams attached to this submission illustrate these arrangements for weeds, animal pests, plant pests and marine pests.

Because of the range of mixed jurisdictional issues associated with invasive species, national policy councils and committees play a vital role in this process. At the national level the peak councils with direct relevance to this portfolio's interests in relation to invasive species are the Primary Industries Ministerial Council, with responsibilities for plant and animal pests and the Natural Resource Management Ministerial Council dealing with weeds and marine pests. The Australian Transport Council is also involved in marine pests due to the potential impacts on the shipping industry.

The activities of the Ministerial Councils are supported by Secretariats established and maintained within DAFF, and by a range of advisory committees. These committees function to ensure there is a coherent, consistent and concerted national approach to the management of those invasive pests and diseases that have the potential to prejudice the competitiveness and sustainability of Australia's agriculture, fisheries and forestry industries. DEH representation on a number of these committees enhances their capacity to address the full range of invasive species issues, including associated environmental considerations. These advisory committees are identified in the four organisational diagrams attached to this submission.

At an operational level the coordination of Commonwealth and State Government involvement in incursion management is primarily undertaken through consultative committees established under the Australian Weeds Committee, Animal Health Committee, Plant Health Committee, or the Forest Health Committee (although environmental pests are not embedded in the functions of the latter two committees). The Consultative Committees review the available information on the spread of the pest and may make recommendations to the Standing Committee of the relevant Ministerial Council on further action before determining if eradication is feasible.

The Standing Committee may either endorse a recommendation for no action or makes a decision on recommendations regarding eradication and the funding formula. Where a program of eradication is agreed, the Consultative Committee continues to oversee and monitor the program until eradication is achieved or considered to be no longer feasible.

Recommendations made by the Consultative Committees for response actions are carried out in a coordinated manner under State legislation that enable government agencies to, *inter alia*, enter properties, establish quarantine zones and restrict movement of plants, animals, vehicles and other sources of contamination.

The relevant standing consultative committees for plant, animal and marine pests and diseases are shown in the attached organisational diagrams, ie:

- Consultative Committee on Exotic Plant Incursions (CCEPI);
- Consultative Committee on Exotic Plant Pests and Diseases (CCEPPD);

- Consultative Committee on Emergency Animal Diseases (CCEAD); and
- Consultative Committee on Introduced Marine Pest Emergencies (CCIMPE).

DAFF involvement in incursion management

At the operational level, the Product Integrity, Animal and Plant Health (PIAPH) Business Unit is the focal point for the Commonwealth's involvement in emergency responses involving pests and diseases with potential implications for Australia's agriculture, fisheries and forestry industries. PIAPH is responsible for the national coordination of the management of exotic pest and disease incursions or outbreaks of endemic pests or diseases of national significance. The area also leads Australia's contribution to the development of international policy and standards related to animal and plant health.

Within PIAPH, the main operational responsibilities are carried by the Office of either the Chief Plant Protection Officer (CPO) or the Chief Veterinary Officer (CVO). These responsibilities include chairing and providing secretariat support for meetings of the relevant Consultative Committees and overseeing the implementation of DAFF's emergency response plan (AFFAEMPLAN).

AFFAEMPLAN details DAFF's management response in relation to emergencies related to animal health and welfare, plant health, food safety, aquatic animal health, and introduced marine pests. It is triggered by an emergency incident caused by a pest, disease, presence of a causative disease agent or contaminant in agricultural, aquacultural commodities or the aquatic environment, that requires urgent consideration by the relevant Commonwealth/State/Territory consultative committee.

DAFF has recently established an Emergency Risk Management Unit to coordinate and facilitate DAFF's involvement in such emergency preparedness and response activities, most notably the recent Foot and Mouth Disease simulation 'Operation Minotaur'.

Funding

The effective management of invasive species normally involves concerted and coordinated action by several government jurisdictions often in close collaboration with industry and the community. The cost of managing exotic pest species can be many millions of dollars and this can escalate rapidly if decisive intervention is delayed. For this reason it is essential that:

- appropriate response strategies and systems are in place;
- the roles and responsibilities of each stakeholder are clearly defined and agreed; and
- procedures are in place so that the necessary human and financial resources can be effectively mobilised.

Without an agreed funding model even the best-planned emergency response can be severely prejudiced by:

- delaying timely action while funding issues are resolved;
- diverting key resources to resolving cost sharing issues rather than addressing the threat; and
- limiting the nature and extent of management action that can be undertaken during the critical initial stages of the incursion management process.

There are established government/industry cost sharing arrangements in place in respect of animal diseases through Animal Health Australia. However, similar arrangements are yet to be developed in respect of plant pests, weeds, vertebrate or aquatic pests.

Current cost sharing arrangements for eradication measures associated with arthropod pests, pathogens and weeds of agricultural production involve the Commonwealth and State Governments first agreeing that the issue warrants joint action, then usually sharing costs on a 50:50 basis apportioned on the basis of the value of production of the industry(s) at risk in each State. In respect of marine pests the Government has determined that the maximum Commonwealth contribution in the event of an outbreak will be \$2.5 million over any three year period, shared equally between the AFF and EH portfolios. Funding beyond that level is subject to Government consideration.

Managing established pests

While responsibility for the management of established pests rests fundamentally with State, Territory and local governments as well as landholders and industry, the Commonwealth plays a major role in setting the strategic framework that other stakeholders implement. DAFF through PIAPH has a significant role in facilitating a coordinated and concerted effort to address established pests where there is a clear and discernable national interest.

Australian Government support has focused on identifying and addressing weeds considered to be of national significance and other priority activities identified through the National Weeds Strategy. The activities associated with addressing both Weeds of National Significance and other NWS priorities have been jointly managed by DAFF (in respect of agricultural weeds) and DEH (in respect of environmental weeds).

The National Weeds Strategy has achieved a number of significant outcomes against its goals of:

- Preventing the development of new weed problems;
- Reducing the impact of existing weed problems of national significance; and
- Providing the framework for ongoing management of weed problems of national significance.

Of particular relevance to this inquiry are the strategic plans developed through the WONS process in respect of the following weeds:

- Mimosa (*Mimosa pigra*)
- Serrated tussock (*Nassella trichotoma*);
- Willow (*Salix spp.*);
- Lantana (*Lantana camara*);
- Blackberry (*Rubus fruticosus agg.*); and
- Parkinsonia (*Parkinsonia aculeata*).

Copies of these strategies are attached. The strategies developed for these weeds represent detailed and nationally agreed assessments of the nature of the threat these weeds pose and a program to address those threats that identifies the roles and responsibilities of each of the key stakeholders. During the first phase of the Natural Heritage Trust, some \$12.9 million was provided through the National Weeds Program to support the development of the National Weeds Strategy, and implementation of the Strategy for these weeds of National Significance. The Report of the National Weeds Strategy Executive Committee covering this period is also attached.

The Natural Heritage Trust also supports the National Feral Animal Control Program (NFACP) that has been established to develop and implement, in cooperation with State, Territory and Local Governments, a program to reduce the damage to agriculture caused by nationally significant pest animals. This program is administered by BRS. Since 1996-97, some \$3.1 million has been provided through the Trust for the agricultural component of the program. This funding complements activity funded through State and Territory land management agencies.

Interaction with other stakeholders

In fulfilling its roles and responsibilities in relation to the regulation, control and management of invasive species DAFF interacts and has developed partnerships with a wide range of stakeholders including other Australian Government agencies and industry.

For example, in addition to the close working relationship developed with DEH, DAFF consults with and coordinates its activities with other government agencies including the Australian Customs Service, the Departments of Health and Ageing (DH&A), Immigration and Multicultural and Indigenous Affairs (DIMIA), Foreign Affairs and Trade (DFAT), Transport and Regional Services (DOTARS), Defence and Australia Post on quarantine issues.

The key agencies engaged in incursion management include DFAT, (in relation to any potential trade implications), DH&A (in relation to any potential public health dimensions) and the Department of Finance (in relation to funding the Commonwealth's contribution). In the management of invasive marine pests DAFF is extensively involved with both DOTARS and the Australian Maritime Safety Authority at a policy level. Depending on the nature of the incident, the Navy, Customs, the Australian Fisheries Management Authority and DIMIA may also be involved at an operational level.

Arrangements for engaging industries in quarantine-related activities include the Quarantine and Export Advisory Council and thirteen industry specific consultative bodies, as well as through Plant Health Australia (PHA)² and Animal Health Australia (AHA)³. For marine pests, industry is engaged through the National Introduced Marine Pest Coordination Group (NIMPCG).

Surveillance Capacity

The ability to detect pests early is probably the main determinant in achieving an effective response to incursions. Surveillance capacity is therefore a key constraint in achieving early detection. DAFF provides some targeted surveillance through AQIS and PHA for specific pests such as fruit flies, screw worm flies and Asian Gypsy Moth. It is also working with AHA and PHA to enhance the general surveillance capacity of a wide range of stakeholders through national awareness and reporting programs.

Diagnostic services and scientific support

A decision on whether to eradicate, contain or manage an outbreak of an exotic pest must be taken quickly and is heavily dependent on the ability to obtain a rapid and

² Plant Health Australia is a public company established in 2000 to advise on plant health issues for industry and government. Membership includes the Australian Government, all State/Territory governments, and some 15 peak industry bodies.

³ Animal Health Australia is a public company established in 1996 to advance issues of collective interest to stakeholders associated with the health of livestock. It has 24 members including Commonwealth, State and Territory governments, primary industry groups, and other key interest organisations.

accurate diagnosis of the organism involved. Diagnostic services in Australia are provided via a combination of government laboratories (State agencies and CSIRO), commercial laboratories, universities, and pest and disease specialists.

PIAPH and Plant Health Australia have recognised the importance of strengthening diagnostic capacity and are putting resources into the development of national diagnostic standards for priority exotic plant pests, along the lines of those being developed internationally.

In relation to animal health issues the primary source of diagnostic advice is the Australian Animal Health Laboratory based in Geelong. This is a substantial biosecure facility jointly supported by the CSIRO and DAFF funds.

In relation to marine pests, the CSIRO has developed considerable expertise in its field that is drawn on as required. The resources available from the CSIRO are supplemented by the activities of state government laboratories, museums, universities and the Bureau of Rural Sciences.

DAFF Performance

In recent years there have been a number of reviews of the effectiveness of Australia's quarantine services and the Department's preparedness to deal with emergencies concerning the agriculture-related pests and diseases for which it has responsibility. These include⁴:

ANAO Report No.9 1999–2000: Managing Pest and Disease Emergencies—Agriculture, Fisheries and Forestry—Australia

This audit assessed the Commonwealth's planning and response mechanisms to deal with exotic and new endemic disease and pest emergencies in the animal and plant sectors. The report concluded that, overall, the Commonwealth's emergency planning and response strategies had enabled it to deal effectively with most aspects of exotic incursions and new endemic pest and disease outbreaks.

The ANAO recommended strengthening of aspects of the emergency management framework to provide adequate assurance that the Commonwealth was fully prepared to respond in a timely and appropriate way to emergencies. To this end it made a number of recommendations to improve planning for emergencies; better coordination; diagnostic support; and appropriate monitoring and surveillance. AFFA agreed to all recommendations.

ANAO Report No.34 2002-03 Pest and Disease Emergency Management Follow-up Audit—Agriculture, Fisheries and Forestry—Australia

The overall conclusions of the ANAO were that in the three years since the previous audit, AFFA adopted a systematic approach to addressing the recommendations of the earlier audit. This has been assisted by additional funding under the *Building a National Approach to Animal and Plant Health* initiative and funding in the 2001 and 2002 Budgets to strengthen post-border preparedness; enhance epidemiological and diagnostic resources; and boost rural veterinary services.

The ANAO considered the effectiveness of the Commonwealth's planning and response strategies for pest and disease emergencies had improved as a result of AFFA's actions

⁴ Usage of the term 'Commonwealth' and 'AFFA' rather than 'Australian Government' and 'DAFF' reflects usage at the time of preparation of the reports.

in responding to the previous audit recommendations. Response capability was found to be strongest for a major terrestrial animal emergency, which had been subject to most development. It considered that further improvements in the effectiveness of planning and response strategies for pest and disease emergencies in the aquatic animal and plant sectors, and for lower level terrestrial animal emergencies, were likely to result from projects underway.

AFFA agreed with the outcomes of ANAO's audit, which confirmed the extensive work that has been completed by the Department, in cooperation with its key stakeholders, over the previous three years. It acknowledged that to remain well prepared for emergency responses, an ongoing process of continuous improvement was required. As a result, it had established a new Emergency Risk Management Unit to coordinate and facilitate AFFA's involvement in emergency preparedness activities and to complete the outstanding actions identified by ANAO in its report. AFFA indicated that the outstanding matters would be substantially completed by the end of 2003.

*Joint Committee of Public Accounts and Audit Report No. 394 – February 2003–
Review of Australia's Quarantine Function.*

In general, the Committee found that Australia's quarantine function was 'in good shape and the additional funding is being appropriately used'. The Committee also found that AFFA was 'well prepared to respond to incursions of exotic terrestrial pests and diseases'. However, it did note that evidence provided to the Committee revealed that currently at the Commonwealth level, there appeared to be no capacity to systematically deal with marine incursions, especially of biofouling organisms.

The JPCAA also acknowledged that it was not possible for Australia to adopt a zero risk stance as regards quarantine so there would be from time to time incursions of exotic pests and diseases. The Committee considered Australia was well placed to meet those threats but had found some gaps and areas where it felt enhancement was warranted.

The Australian Government is currently considering its response to this review.

Attachments

Diagrams- Management Roles and Responsibilities

1. Animal Pests
2. Plant Pests
3. Marine Pests
4. Weeds

Import Risk Analysis

Biosecurity Australia, Import risk analysis handbook, Agriculture, Fisheries and Forestry – Australia, Canberra

Weeds of National Significance

National Strategies in respect of:

- Mimosa (*Mimosa pigra*)
- Serrated tussock (*Nassella trichotoma*);
- Willow (*Salix spp.*);
- Lantana (*Lantana camara*);
- Blackberry (*Rubus fruticosus agg.*); and
- Parkinsonia (*Parkinsonia aculeata*).

Report of the National Weeds Strategy Executive Committee 1997-2002