



# Chapter 1

The plant biosecurity system protecting Australia

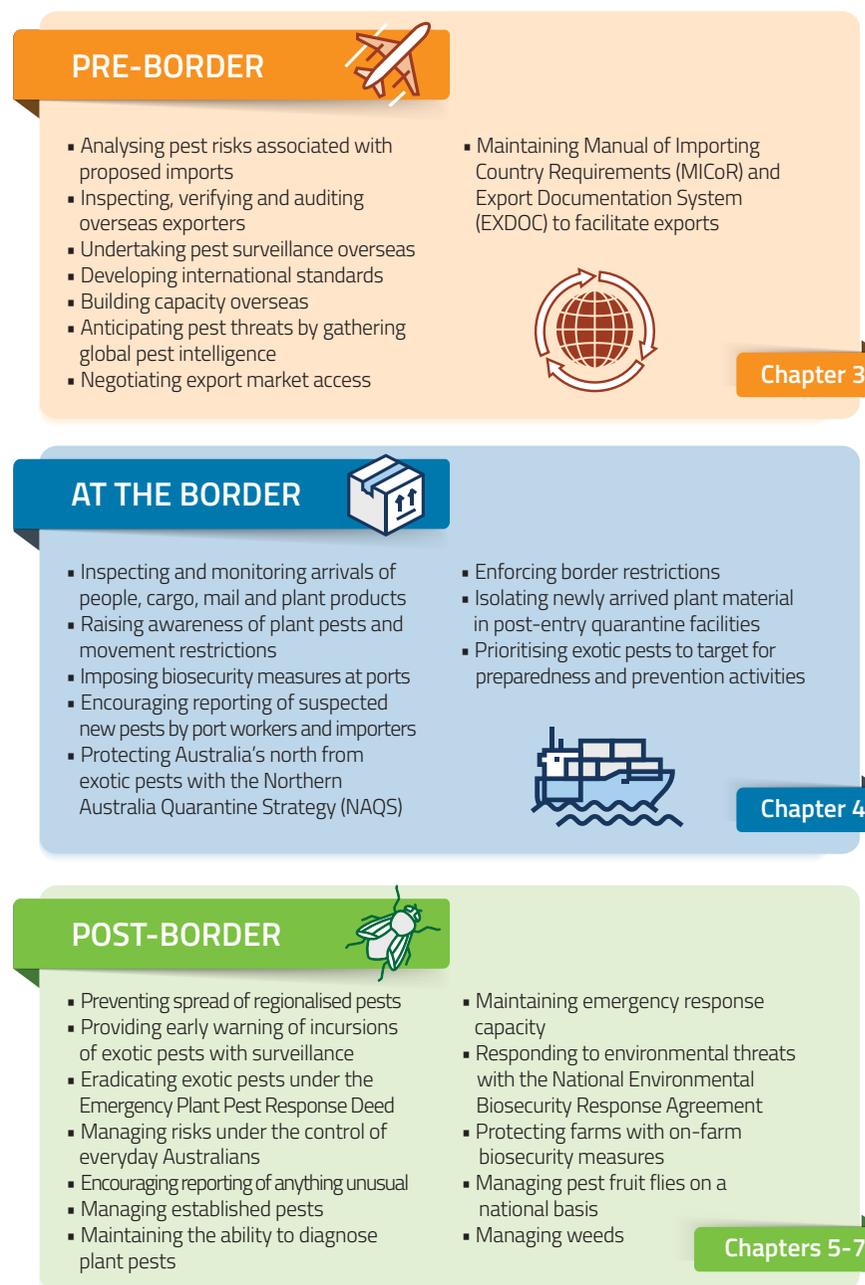
Australia's plant biosecurity system is made up of three layers of protection: pre-border activities, those at the border and post-border measures within Australia, plus whole of system assets (see Figure 3).

While some activities defy easy categorisation into these layers, some generalisations can be made. Pre-border activities are dealings with overseas countries to prevent pests from reaching Australia.

Border restrictions aim to intercept pests arriving through movements of people and goods from overseas.

Post-border initiatives aim to control risks within Australia, including surveillance to quickly detect any new exotic pest incursions, regional and interstate movement restrictions, farm biosecurity, taking responsibility for risks under an individual's control, and eradication efforts in response to the detection of emergency plant pests within Australia.

Figure 3. Key components of Australia's plant biosecurity system



# The plant biosecurity partnership

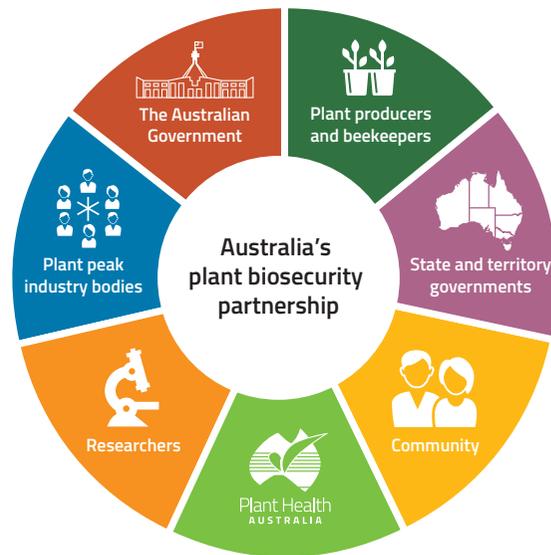
The enormous challenge of protecting Australia from plant pests can only be achieved by stakeholders operating in a coordinated fashion, referred to as the plant biosecurity partnership.

Previous reviews of Australia’s biosecurity arrangements by Nairn (1996)<sup>4</sup> and Beale (2008)<sup>5</sup> have emphasised the complex nature of biosecurity, the consequent challenges in building a sustainable support structure, and the need for all stakeholders – national, state, industry and others – to work together to achieve better biosecurity outcomes.

The principle of biosecurity partnerships was established in recognition that, in addition to plant producers and governments, the wider Australian community benefits from good biosecurity. Benefits include improved productivity, product quality, market access, trade, profitability, sustainability and environmental preservation.

Each of the seven key plant biosecurity partners has a role to play in protecting Australia from plant pests (see Figure 4). The roles and responsibilities, legislation and frameworks are described in the following sections.

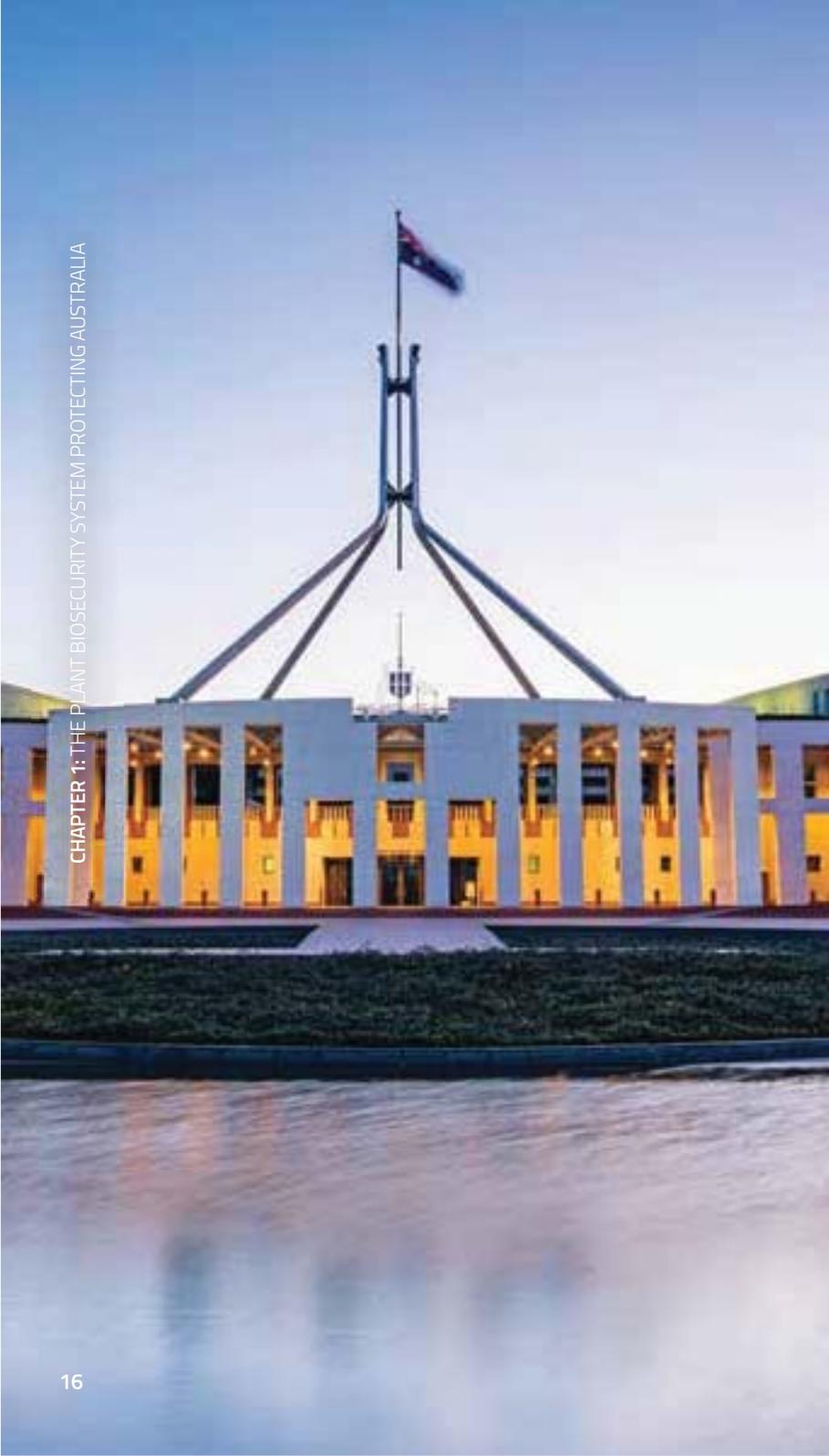
Figure 4. Key players in the plant biosecurity partnership that protects Australia from plant pests



4. Nairn ME, Allen PG, Inglis AR and Tanner C (1996). Australian quarantine: A shared responsibility  
 5. Beale R, Fairbrother J, Inglis A and Trebeck D (2008). One biosecurity : A working partnership



ACT Government biosecurity officers setting up exotic fruit fly traps. Image courtesy of Suzie Breitkopf



## Roles of governments

### THE AUSTRALIAN GOVERNMENT

Under national legislation, the Australian Government has responsibility for the bulk of biosecurity activities pre-border and at the border. This includes screening and compliance at the multiple entry points that make up the nation's border, international phytosanitary (plant health) obligations, carrying out risk analysis for proposed imports, and post-entry plant quarantine.

As well as regulating imports, the Australian Government's biosecurity activities also play a key role in exports of Australian produce. This is because overseas markets can reject imported produce from countries if it is grown in areas known to have particular pests.

The Australian Government assists in market access negotiation by working with states and territories and plant industry peak bodies to collect and analyse plant health surveillance data, to provide our trading partners with evidence of our freedom from pest and disease.

The Australian Government also undertakes negotiations to determine any treatments that may be required, or any other conditions to be met in sending Australia's plant products overseas.

In addition to bilateral and multilateral trade negotiations Australia also plays a leadership role in developing and implementing international agreements that aim to prevent the spread of plant pests, known as phytosanitary agreements.

Under the *Agricultural Competitiveness White Paper, Stronger Farmers, Stronger Economy*<sup>6</sup>, the Australian Government is also investing \$200 million into improving biosecurity surveillance and analysis, to better target critical biosecurity risks and improve market access for Australian producers.

#### Department of Agriculture and Water Resources

Most of the responsibilities of the Australian Government are delivered through the agriculture portfolio, in collaboration with other agencies described in the following pages.

Following several reviews over recent decades, the Australian Government Department of Agriculture and Water Resources takes a future focused approach to maintain a strong and resilient biosecurity system that will protect Australia from new biosecurity challenges, whatever they may be.

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6. Commonwealth of Australia (2015). *Agricultural Competitiveness White Paper*, Canberra

Key themes underpinning continuous improvement to Australia's biosecurity system include:

- Targeting what matters most, including risk-based decision making and managing biosecurity risk across the system layers (pre-border, at the border and post-border).
- Good regulation, including effective legislation and reduced regulatory burden.
- Better processes, including modernisation of service delivery and streamlined systems.
- Sharing the responsibility, including maintaining productive relationships with all levels of government, primary industries and the wider Australian public.
- Maintaining a capable workforce.

The benefits of the modern biosecurity system are realised by industry, government and the community, with positive flow-through effects to the nation's economy.

The core priorities of the Department of Agriculture and Water Resources in managing biosecurity are to:

- Effectively identify risks and direct resources to the areas of greatest return from a risk management perspective.
- Partner with other governments, industry, clients and stakeholders to manage Australia's biosecurity.
- Deliver biosecurity services to support access to overseas markets and protect the economy and the environment from the impacts of unwanted pests and diseases.
- Support Australia's reputation as a competitive exporter of agricultural goods and products.

The Department also pursues international market access for Australia's industries and access to the Australian market for our trading partners through bilateral, regional and multilateral engagement. Priority is given to:

- Working to remove barriers to international trade.
- Progressing and resolving market access priorities and issues for portfolio industries.
- Facilitating targeted technical assistance and agricultural cooperation in support of portfolio interests.
- Assisting the development of international standards for portfolio products and industries.

This work is supported and enhanced by a network of agricultural counsellors located in Belgium, China, Dubai, Europe, France, India, Indonesia, Italy, Malaysia, Japan, Korea, the Middle East, Thailand, Saudi Arabia, Vietnam and the United States. Through its overseas network, the department pursues international market access opportunities.

## Strengthening plant biosecurity surveillance and analysis



Through investment under the Agricultural Competitiveness White Paper, the Australian Government is building the capability and effectiveness of the Australian plant biosecurity system.

One focus is stronger surveillance to prevent the arrival and establishment of exotic pests and disease, and improve the timeliness and accuracy of

surveillance data collected for market access negotiations.

A \$200 million package of biosecurity measures aims to improve biosecurity surveillance and analysis to better target critical biosecurity risks, including in Northern Australia, to protect agricultural industries, environment and the community from the impact of exotic pests and diseases.

The investment is being used to strengthen biosecurity surveillance, build community based engagement, and improve scientific and analytical capability.

The Department of Agriculture and Water Resources is responsible for implementing this component of the White Paper and are doing so through:

- Additional pre-border surveys to provide early warning of risks to Australia, enabling adjustments to risk management measures and national preparedness activities.
- Additional national and departmental surveillance, including support for industry surveillance strategies. This is helping to detect pests of concern as early as possible to better support containment or eradication, and to provide evidence to our trading partners of pest freedom.
- Updated import conditions to ensure that our risk management measures are fit for purpose and stay up to date.
- Additional import risk assessments to ensure safe trade, improve relations with trading partners and facilitate export market access negotiations. This includes the adoption of improved risk assessment processes and policies.
- Improved analytics capability to give insights into emerging biosecurity risks.
- A new process for identifying and managing changes in biosecurity risk to ensure that high impact changes are assessed and mitigation actions tracked to completion.
- Export market access assisted through the development of standardised treatment packages, domestic and offshore capability building and the use of surveillance data to demonstrate area freedom during market access negotiations.

For more information visit [agriculture.gov.au/whitepaperbiosecurity](http://agriculture.gov.au/whitepaperbiosecurity).

### Department of Foreign Affairs and Trade

The Department of Foreign Affairs and Trade (DFAT) helps make Australia stronger, safer and more prosperous by promoting and protecting our interests internationally and contributing to global stability and economic growth. The department provides foreign, trade and development policy advice to the government and works with other government agencies to coordinate Australia's global, regional and bilateral interests.

### Department of the Environment and Energy

The Department of the Environment and Energy (DEE) is responsible for contributing to the development of national policies on pests and invasive plants that cause harm to the environment.

The department is also responsible under the *Environment Protection and Biodiversity Conservation Act 1999* for assessing the environmental impact associated with proposals to import live plants and animals (the approvals of which are not inconsistent with the *Biosecurity Act 2015*) and ensuring that Australia complies with its obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

It also provides advice to the Department of Agriculture and Water Resources on environmental issues in relation to risk assessments.

### Department of Home Affairs

The Department of Home Affairs, formed in 2017, manages the security and integrity of Australia's borders. It works closely with other government and international agencies, in particular the Australian Federal Police, the Department of Agriculture and Water Resources and the Department of Defence, to regulate and control the movement of goods and people across the Australian border.

### The Inspector-General of Biosecurity

Australia's biosecurity system relies on various government programs, in cooperation with industry, to ensure the safe international movement of people and goods.



*Dr Helen Scott-Orr is the inaugural Inspector-General of Biosecurity, appointed in July 2016. Image courtesy of the Department of Agriculture and Water Resources*

The Inspector-General of Biosecurity (IGB) was established to enhance the integrity of Australia's biosecurity systems through independent evaluation of the performance of these programs across the whole system: pre-border, at the border and post-border.

The position is independent from the Department of Agriculture and Water Resources and its Minister, though they will consider particular review requests.

The Inspector-General may review the performance of functions and exercise of powers by the Director of Biosecurity and make recommendations for improvement to the overall system.

A review program is published annually, set in consultation with the Minister for Agriculture and Water Resources and the Director of Biosecurity. Processes that underpin Biosecurity Import Risk Assessments are subject to review by this office. In 2017, the Inspector-General analysed pest and disease incursions, barrier breaches and high-risk interceptions in Australia over the past 10 years.

### Other Australian Government organisations

Within the Department of Agriculture and Water Resources, the Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES) provides current scientific and economic advice to decision makers to support the plant biosecurity system.

Other Australian Government agencies that contribute to maintaining Australia's plant biosecurity system include the CSIRO, the Office of the Gene Technology Regulator, and the Australian Pesticides and Veterinary Medicines Authority (APVMA).

The Australian Trade and Investment Commission, Austrade, is the Australian Government's trade, investment and education promotion agency. Austrade's role is to advance Australia's international trade, investment and education interests by providing information, advice and services.

The Australian Centre for International Agricultural Research (ACIAR) is a statutory authority that operates as part of the Australian Government's development cooperation programs. ACIAR encourages Australia's agricultural scientists to use their skills for the benefit of developing countries and Australia.

For a list of other Australian Government organisations that support plant biosecurity research and development see Chapter 8.

## STATE AND TERRITORY GOVERNMENTS

While the Australian Government has responsibilities for the majority of pre-border and border biosecurity activities, state and territory governments are responsible for the delivery of plant biosecurity operations and the supporting legislation within their borders.

Each state and territory has a different approach to the role, primarily due to the varied climatic conditions and legislative frameworks across the country. Jurisdictions each provide a number of core services, most of which involve the community.

Broadly, these are activities concerned with not spreading existing plant pests further within Australia, including any newly detected exotic pests.

State and territory government responsibilities include:

- Managing domestic imports and exports into and out of their jurisdiction, primarily to prevent the spread of regionalised pests around Australia. There are two components to this:
  - Domestic quarantine services for the clearance of passengers, cargo, mail, plants and plant products moving interstate.
  - Export and market access support for producers who want to sell their produce across state boundaries. This includes including plant health certification services, surveys and inspections to support area freedom and the accreditation and auditing of export compliance arrangements.
- Providing quarantine services, involving activities to prepare for, and respond to, any plant pest incursions in their jurisdiction, including communicating with communities.
- Maintaining normal commitments and deliver responsibilities under the Emergency Plant Pest Response Deed, which is activated upon detection of a suspected Emergency Plant Pest in their jurisdiction. Responsibilities include setting up and enforcing quarantine zones, informing the public and treating pests and plants. The lead agency also carries out surveillance to find out how far pests have spread, and at the end of the response, to confirm that eradication has been achieved.
- Undertaking pest surveillance in their jurisdiction, in partnership with industry and community volunteers. There are 155 surveillance programs carried out by state and territory governments, requiring significant resourcing. Pest surveillance is crucial for the early detection of new pests, discovering the extent of pest spread (delimiting), and providing evidence of area freedom to facilitate market access.
- Providing state and territory diagnostic services to identify plant pests (both endemic and exotic) found in their jurisdiction, or to assist another jurisdiction. This includes reference collections for comparison of species.
- Developing and maintaining information systems to support routine and emergency plant biosecurity management.
- Sending out public information to raise awareness of biosecurity threats and calls to action.

- Carrying out science based risk analyses to identify pest threats and inform plant biosecurity policy and operations.
- Funding and providing research, development and extension to support the continued improvement of pest management and protection capabilities.
- Developing and administering plant biosecurity policies and legislation, and work on national committees to ensure that these are in line with other governments around Australia.

State and territory governments coordinate their activities through the Intergovernmental Agreement on Biosecurity (page 30), the Plant Health Committee and subcommittees (page 28), through Plant Health Australia (page 26) and through the Emergency Plant Pest Response Deed (page 142).

### Australian Capital Territory

Lead agency: Environment Planning and Sustainable Development (EPSD) Directorate  
[environment.act.gov.au](http://environment.act.gov.au)

The ACT Government manages plant biosecurity through the EPSD Directorate, together with the Transport Canberra and City Services (TCCS). The directorate is responsible for policy development and shares operational implementation with TCCS.

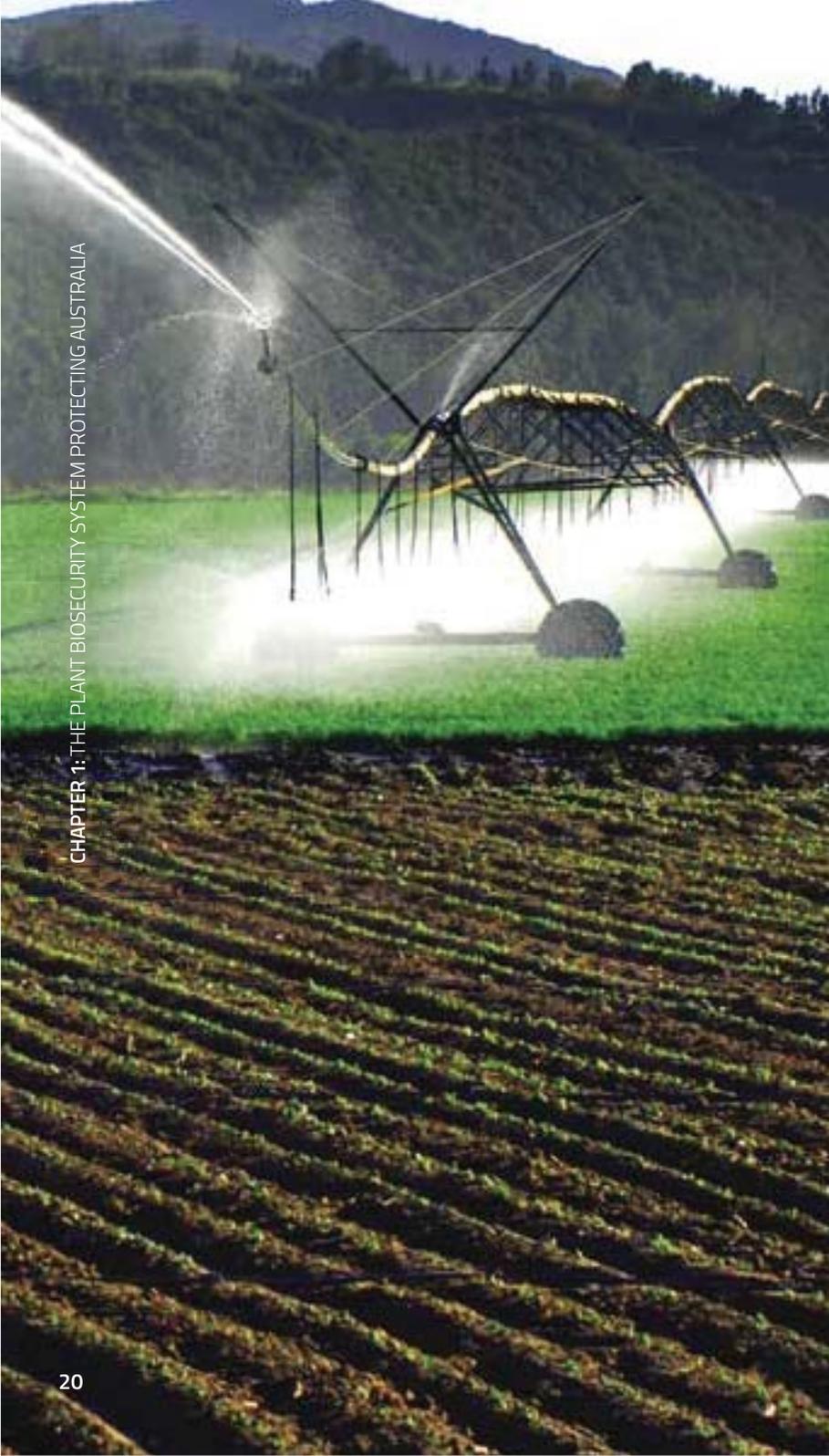
Plant biosecurity activities in the ACT are underpinned by the *Plant Diseases Act 2002*, the *Pest Plants and Animals Act 2005*. Although the ACT does not have many plant production industries, the government is represented on national committees during plant pest emergency responses and participates in the development of associated national frameworks and strategies when it has expertise to contribute. It has particular expertise in forestry, urban tree management and national parks.



In 2017, the ACT Biosecurity Strategy 2016–26 was released, identifying the goals, objectives and supporting actions for addressing biosecurity across the Territory. Since the ACT is surrounded by NSW, the Strategy's goals and outcomes are closely aligned with those of NSW.

International flights to Canberra Airport began in 2016, prompting regular surveillance around the airport to check for exotic pests including exotic fruit flies and Asian gypsy moth.

During 2017 the ACT declared parts of the state of Western Australia be an area subject to an importation restriction to prevent the introduction of tomato potato psyllid (*Bactericera cockerelli*) and the bacterium *Candidatus Liberibacter solanacearum* into the ACT.



## New South Wales

Lead agency: Department of Primary Industries (NSW DPI)

[dpi.nsw.gov.au](http://dpi.nsw.gov.au)

NSW DPI is the principal agency responsible for plant biosecurity in the state, ensuring that policies, management and procedures are in place to minimise the impact of existing, invasive and emergency plant pests. NSW DPI maintains rapid response mechanisms for pest incursions in order to protect trade and market access, agricultural resources, regional economies and the environment.

The NSW Biosecurity Strategy 2013–21 defines how NSW DPI, in partnership with other government agencies, industry and the public, manages biosecurity risks to NSW.

Within NSW DPI, the Plant Biosecurity and Product Integrity unit develops plant pest policy directions and has oversight of operational responses to Emergency Plant Pests.

The group provides advice to, and participates actively in, national decision making forums for plant pests of national significance and interstate market access for NSW plants and plant products.

Diagnosis and surveillance activities are supported by the Plant Health Diagnostic Service at Elizabeth Macarthur Agricultural Institute, the Biosecurity Collections unit at Orange Agricultural Institute, the state-wide network of compliance officers and the emergency management First Response Team.

Close collaboration is established with entomology and plant pathology researchers and with the state-wide Local Land Services network.

Significant changes to NSW biosecurity legislation occurred in 2017 with the commencement of the *Biosecurity Act 2015*, the *Biosecurity Regulation 2017* and other supporting legislation. Fourteen previous Acts have now been wholly or partially repealed with the commencement of the *Biosecurity Act 2015*. The NSW Government’s plant biosecurity activities administered by NSW DPI are now wholly underpinned by the *Biosecurity Act 2015* and the *Biosecurity Regulation 2017*.

### GENERAL BIOSECURITY DUTY

#### WHAT IS MY DUTY?

 **Prevent biosecurity risks**

 **Eliminate risks**

 **Minimise risks**



As much as is reasonable

#### WHEN DO I HAVE A DUTY?

**If you deal with, or deal with a carrier of biosecurity matter you have a duty**

e.g. weeds, animals, plants or machinery...



And if you **should know** that there is a risk

#### HOW DO I FULFIL MY DUTY?

**By referring to:**

-  • State strategic plans
- Regional strategies
- Local plans
- Guidelines & advisory material
- Codes of practice & industry standards
- Mandatory measures



*The NSW Biosecurity Act 2015 incorporates a general biosecurity duty*

## Northern Territory

Lead agency: Northern Territory Department of Primary Industry and Resources (NT DPIR)  
[dpiir.nt.gov.au](http://dpiir.nt.gov.au)

Plant biosecurity in the Northern Territory (NT) is managed by the Plant Biosecurity Branch, within NT DPIR's Biosecurity and Animal Welfare Division. The Plant Biosecurity Branch is responsible for the development and implementation of plant biosecurity policies, programs and procedures aimed at maintaining NT's freedom from plant pests that could adversely impact on trade, market access, public health and the environment.

The NT agricultural sector provides over \$606 million to the Australian economy each year. Horticultural industries contribute over one third of this value, in annual production of iconic Territory produce such as mangoes and melons. Other markets offer growth opportunities.

To protect this, the environment and social amenity, the Plant Biosecurity Branch undertakes the following services:

- Maintaining and improving the plant health status of the plant and plant product industries of NT.
- Minimising the risk of exotic pests entering NT through compliance and surveillance.
- Facilitating interstate trade of plant and plant products through certification, inspection and the Interstate Certification Assurance program.
- Conducting active and passive pest surveillance to support market access nationally and within NT.
- Conducting active surveillance for the early detection of a range of Emergency Plant Pests.
- Preparing for effective emergency response mechanisms in the event of an Emergency Plant Pest incursion.
- Developing, implementing and reviewing NT's plant health policy and legislation.

Recently, the NT has been providing front line services to eradicate or manage pests including banana freckle, browsing ant, cucumber green mottle mosaic virus, Asian honey bee and Queensland fruit fly.

The NT has also been undertaking surveillance and eradication of Queensland fruit fly and taking part in the National Browsing Ant Eradication Program.

## NT banana freckle eradication on track

In 2013, a strain of the fungal pest banana freckle (*Phyllosticta cavendishii*) was detected on Cavendish variety bananas in the NT. This strain of banana freckle is present in other countries and is known to severely limit commercial banana production.

With scientific advice about the status, epidemiology and impact of the pest, the National Management Group convened under the Emergency Plant Pest Response Deed deemed that eradication of banana freckle was technically and economically feasible. In October 2014, nationally cost-shared response plan was agreed and the NT department officers began the huge task of locating and removing banana plants in the area.

Now in 2017, the National Banana Freckle Eradication Program is approaching the final phase – Assessment of Proof of Freedom. For NT DPIR, this has involved two more rounds of inspections of more than 300 properties that were previously infected with banana freckle, or close to infected areas, to provide confidence that the pest is eradicated from the NT.

Quarantine zones and movement restrictions have been relaxed, so that banana plants can once again be cultivated and moved freely throughout the Territory. Permits are still required to move banana plants or fruit into and out of the Territory.

The eradication of banana freckle is significant for the sustainability of the national banana industry, and for the potential expansion of the Australian banana industry in the NT.



Maurice Thompson with sentinel banana plants prior to distribution. Image courtesy of Bill Whittington

## Queensland

Lead agency: Queensland Department of Agriculture and Fisheries (QDAF)

[daf.qld.gov.au](http://daf.qld.gov.au)

Within QDAF, Biosecurity Queensland is responsible for: developing policies, standards, delivery systems and services to reduce the risk of introduction of exotic plant pests; minimising the impacts of new plant pest incursions on Queensland's plant industries, environment and communities; and preserving and expanding market access for Queensland's plant based industries.

The Plant Biosecurity and Product Integrity program within Biosecurity Queensland has responsibility for plant biosecurity, diagnostics and the implementation of programs for the detection, control and prevention of certain plant pests.

Agri-Science Queensland, a division of QDAF, undertakes research, development and extension on a wide range of plant pests in the cropping, horticultural and forestry industries. The group provides additional diagnostic capability, undertakes surveillance and develops integrated management packages to limit the impacts of pests within farming systems.

Currently, plant biosecurity management in Queensland is underpinned by the *Biosecurity Act 2014* and *Biosecurity Regulation 2016* which are focused on preventing, controlling and removing pest infestations of plants. This legislation is also complemented by a number of other acts, including the *Chemical Usage (Agricultural and Veterinary) Control Act 1988* and the *Agricultural and Veterinary Chemicals (Queensland) Act 1994*.

The *Biosecurity Act 2014* commenced on 1 July 2016. It ensures a consistent, modern, risk-based and less prescriptive approach to biosecurity in Queensland.

## South Australia

Lead agency: Department of Primary Industries and Regions SA (PIRSA)

[pir.sa.gov.au](http://pir.sa.gov.au)

Biosecurity SA, a division within PIRSA, is responsible for the development and implementation of plant biosecurity policies, programs and procedures aimed at maintaining SA's freedom from pests that could adversely impact trade, market access, public health, food safety, the rural economy and the environment.

Given SA's freedom from fruit flies of economic significance, PIRSA has a strong focus on operations aimed at preventing their entry and establishment. These activities include a dedicated state wide fruit fly trapping grid, static quarantine stations and random roadblocks, targeted awareness and education campaigns, regulatory arrangements for importers and specific measures to effectively respond to and eradicate any fruit flies detected.

Additionally, the South Australian government has, in partnership with Hort Innovation and the SITplus consortium, constructed and commissioned the National Sterile Insect Technology (SIT) Facility in Port Augusta, which has the ability to produce 50 million sterile Queensland fruit flies per week.

The South Australian Research and Development Institute (SARDI) is the state government's principal research institute and provides Biosecurity SA with plant diagnostic, pathology and entomology advice.

SARDI also undertakes targeted research and development to reduce losses from plant diseases across cereal, pulse, pasture, viticulture and horticulture industries. This includes delivery of plant health diagnostic services to growers, consultants, state and national plant biosecurity authorities. The group collaborates closely with breeding companies, pre-breeding programs and the private sector to develop disease resistant plant varieties.

Plant biosecurity programs in SA are underpinned by the *Plant Health Act 2009* and *Plant Health Regulations 2009*. In addition, the *Plant Quarantine Standard SA* has been established under the Act to identify the relevant conditions of entry for fruit, vegetables, plants, plant products, machinery or equipment of biosecurity concern.

## Tasmania

Lead agency: Department of Primary Industries, Parks, Water and Environment (DPIPWE)

[dripwe.tas.gov.au](http://dripwe.tas.gov.au)

The DPIPWE Biosecurity Tasmania Division manages biosecurity policy and programs for plant pests. The Plant Biosecurity and Diagnostics Branch of the Division supports and maintains Tasmania's biosecurity system as a leader in the development of plant biosecurity policy, and delivery of plant health diagnostic and associated service areas. It does this through the delivery of work programs across three areas: plant biosecurity policy and administration, plant health diagnostics (entomology), and plant health diagnostics (plant pathology).

The branch also provides diagnostic and control advice for plant pests and diseases in primary industry, horticulture and biosecurity situations. The state-wide laboratory services supply a range of tests for plant pests and pathogens, utilising microbiological, molecular, ELISA, and electron microscopy techniques on a wide range of plants and seeds for private industry, government research bodies and certification schemes.

The unit maintains and develops Tasmania's capability to effectively respond to and recover from plant biosecurity emergencies, compiles and maintains official pest records to assist market access and trade, and also leads the implementation of plant biosecurity risk analysis activities consistent with the Import Risk Analysis Framework.

A draft *Biosecurity Bill 2017* has been developed and will be considered by the Tasmanian Parliament in 2018. The single new *Biosecurity Act* will promote good regulatory practices through an efficient and effective legislative framework. The framework will support a strong biosecurity system in Tasmania that facilitates trade and protects business, the environment and the community.

## Victoria

Lead agency: Victorian Department of Economic Development, Jobs, Transport and Resources (DEDJTR)  
[ecodev.vic.gov.au](http://ecodev.vic.gov.au)

The Biosecurity and Agriculture Services Branch, within DEDJTR, delivers biosecurity and product integrity programs across the agriculture, horticulture, forest and amenity plant sectors. Activities undertaken are guided by the Victorian Biosecurity Strategy which aims to minimise the impact of Emergency Plant Pest incidents on the environment and production systems and maintain access to local and overseas markets.

The Chief Plant Health Officer Unit is responsible for the development, review and monitoring of policies, protocols and procedures in accordance with national and international obligations.

The Biosecurity Operations Division delivers operational functions from metropolitan and regional centres according to technical standards and protocols which are underpinned by the *Plant Biosecurity Act 2010* and implemented by *Plant Biosecurity Regulations 2016*. Opportunities are provided under the legislation for producers and marketers to adopt quality assurance arrangements which are subject to regular audit and improvements.

Scientific and diagnostic support is provided by Agriculture Victoria Research. Staff provide expert technical advice to assist with incursion responses, market access programs and other biosecurity initiatives including development and review of biosecurity plans for industries, as well as technical expert representation on national committees and working groups.

The research team, and its associated Crop Health Services diagnostic business, supports biosecurity by conducting relevant research and providing diagnosis in the areas of entomology, mycology, nematology, virology and bacteriology. Specialist diagnostic services and expertise is also provided to interstate jurisdictions as required, to support national responses to new pests.

## Western Australia

Lead agency: Department of Primary Industries and Regional Development (DPIRD)  
[dpiird.wa.gov.au](http://dpiird.wa.gov.au)

In 2017, the Department of Agriculture and Food, Western Australia amalgamated into the new Department of Primary Industries and Regional Development (DPIRD). DPIRD is the lead agency responsible for plant biosecurity in WA, with development and implementation of plant biosecurity policies, programs and procedures delivered under the Sustainability and Biosecurity organisational pillar. This pillar includes our biosecurity, resource management, operations and compliance functions. It is largely regulatory and market access focussed, helping WA to maintain its enviable reputation as a producer of safe, sustainable and biosecure agricultural and aquatic products.

Plant biosecurity in WA is mainly managed under the *Biosecurity and Agriculture Management Act 2007*, designed to prevent pests and diseases from entering the state and manage those that are found here. The Act provides for a modern biosecurity system to control the entry, establishment, spread and impact of harmful organisms (pests and diseases), control the use of agricultural and veterinary chemicals, establish standards to ensure the safety and quality of agricultural products and raise funds for biosecurity related purposes.





## Roles played by other partners

**Plant industry peak bodies** represent growers of particular types of crops, such as grain growers or stone fruit orchardists, as well as beekeepers. These organisations form a network of industry stakeholders with key roles to play in ensuring that their industry is protected from plant pests and that their growers understand the threats and how to mitigate them. Peak industry bodies are funded by memberships from growers, and many have primary industry levies in place to provide funding for particular biosecurity initiatives to protect that industry.

Details of Australia's plant industry peak bodies, their value, major pest threats and biosecurity initiatives are in Chapter 2.

**Plant producers and beekeepers** have a responsibility to protect their own enterprises, and those of others in their region, from new pests and weeds by using farm biosecurity measures. On-farm biosecurity measures are covered in Chapter 6.

**Researchers** are the research funders and scientists who ensure that scientific research – research development and extension (RD&E) – provides answers to pest problems that Australian producers face. These activities are carried out by government and industry researchers, often through cooperative funding organisations like Hort Innovation and the Plant Biosecurity Cooperative Research Centre. Research includes methods of identifying pests (diagnostics), effective management techniques and work to breed resistant crop varieties. Plant biosecurity research is covered in Chapter 8.

**Community** is a broad category, including everyday Australians who must reduce risks within their control. Local governments, landholders, travellers returning from overseas, tourists, home gardeners and anyone moving goods around the country or visiting rural areas have particular responsibilities.

Primarily, community members have post-border biosecurity responsibilities, although people returning from overseas and those importing goods from overseas must abide by international border restrictions to prevent incursions of exotic pests. The roles of community in preserving the integrity of Australia's plant biosecurity status is explained in Chapter 6.

## The plant biosecurity partnership in action – Protecting honey bees and pollination

The National Bee Pest Surveillance Program is an early warning system to detect new incursions of exotic bee pests and pest bees. It is only made possible by partners working together.

The program involves a range of surveillance methods conducted at locations considered high risk for the entry of bee pests and pest bees throughout Australia.

The main aim is to detect any threat soon after arrival. Threats include any pest bees or bees arriving from overseas that might carry a pest or disease that would spread to Australia's honey bees.

Early detection greatly increases the possibility of eradicating an incursion, and limits the scale and cost of an eradication program.

The benefits of honey bees are far greater than the honey they produce, given the pollination services that honey bees provide. Many crops including canola, nuts, fruit and vegetables benefit from or even rely on honey bee pollination.

Given the value of honey bees to crop growers, PHA brought together stakeholders with an interest in protecting Australia's honey bees to fund and implement the National Bee Pest Surveillance Program.

PHA coordinates the program at the national level. State and territory governments provide staff at ports to undertake the surveillance and report findings to a central database. Funding is provided by the Australian Honey Bee Industry Council, Grain Producers Australia, the Australian Government, as well as horticultural industries via Hort Innovation. Volunteer beekeepers play a valuable role by making checks of sentinel hives every two months.

Australia remains free of many serious pests and diseases that affect honey bees overseas.

For more on the National Bee Pest Surveillance Program see page 190.



## THE ROLE OF PLANT HEALTH AUSTRALIA

Plant Health Australia (PHA) is the national coordinator of the government-industry partnership for plant biosecurity in Australia. As a not-for-profit company, funded by member subscriptions from all Australian governments and most of the plant industry peak bodies, PHA independently advocates on behalf of the national plant biosecurity system to benefit plant industries and the environment.

Since plant biosecurity can only be effective if everyone plays a role, a key strategic goal for PHA is to bring together the main stakeholders in the plant biosecurity system, to agree and implement actions to maintain and improve the integrity and performance of the system.

As the national coordinator of the government-industry partnership for plant biosecurity in Australia PHA works to:

- Enhance the commitment of governments and industries to work together.
- Enhance the operation and integrity of Australia's plant pest emergency response arrangements.
- Assist national management of biosecurity risks.
- Monitor performance and promoting continual improvement of Australia's plant biosecurity system.
- Determine future needs of Australia's plant biosecurity system.
- Facilitate improved national investment in plant biosecurity.

PHA's efforts help to:

- Minimise plant pest impacts.
- Enhance Australia's plant health status.
- Assist trade both domestically and internationally.
- Safeguard the livelihood of producers.
- Support the sustainability and profitability of plant industries and the communities that rely upon them.
- Preserve environmental health and amenity.

### Members of Plant Health Australia

All Australian Governments and most major plant-based agricultural industries are members of PHA, bringing the total number to 60 at the end of December 2017. Table 1 gives a full list of industry, government and associate members. The honey bee industry is a member of PHA because of the benefits that pollination brings to crop yield.

Being a member enables parties to stay up to date on plant biosecurity issues and to work together on strengthening all aspects of the system. Membership also gives members the option of being a signatory to the Emergency Plant Pest Response Deed (EPPRD), providing significant benefits for all parties in the event of an Emergency Plant Pest incursion.

Through PHA, current and future needs of the plant biosecurity system can be mutually agreed upon, issues identified and solutions to problems found.

PHA's autonomy fosters an impartial approach to servicing member needs, allowing the company to put the interests of the plant biosecurity system first, as well as supporting a long-term view.

The number of plant biosecurity partnerships are increasing over time, and the model is proving highly successful. One example of a biosecurity partnership facilitated by PHA is the National Bee Pest Surveillance Program, described on page 25.

### PHA provides strategic perspective

PHA's independence and expertise enable the company to take a lead in monitoring the performance of the national biosecurity system and determining its future needs.

In close consultation with stakeholders, PHA formulates the strategies, plans and reports that contribute to government and industry policy development, facilitate improved national coordination and collaboration, and target member efforts and investment to best effect. The National Plant Biosecurity Strategy, biosecurity plans for industries and the series of annual status reports are examples of this work.

### PHA facilitates and manages emergency responses to exotic plant pests

Another central role for PHA is the establishment of funding and management arrangements for effective responses to Emergency Plant Pest incursions. PHA undertakes this role through its custodianship and administration of the Emergency Plant Pest Response Deed (EPPRD), and its operational guide PLANTPLAN, which sets out the agreed approach that government and industry stakeholders will take whenever an Emergency Plant Pest (a new exotic pest of significance) is found or suspected.

At the end of 2017, there were 47 signatories to the EPPRD and seven eradication responses were underway. In addition to ensuring that a response is carried out and cost-shared in accordance with the EPPRD, PHA runs a process to continually improve its provisions. Twice a year, PHA convenes meetings of signatories to the agreement to discuss and agree modifications to the agreement to take account of new information and procedural improvements that are identified through post-incident reviews.

In addition, PHA assists signatories to meet their preparedness and prevention obligations that are stipulated under the EPPRD. As part of this, PHA provides a range of services including contingency planning, surveillance and diagnostic systems support, response training and simulation exercises, all of which boost preparedness.

### PHA works with members to mitigate risks posed by pests

Beyond its contribution to response arrangements, PHA supports the national plant biosecurity system by coordinating and assisting efforts to reduce the risks posed by Emergency Plant Pests. This is achieved in large part by supporting industries and governments to develop strategies and plans that improve biosecurity standards as well as providing assistance with implementation of agreed risk mitigation measures.



PHA maintains the Pest Information Document Database

Biosecurity plans, biosecurity manuals for producers and awareness raising extension services are examples of activities that PHA undertakes with and on behalf of members.

PHA also works to ensure that the system is supported with assets such as information systems, diagnostic expertise, targeted research, development and extension activities, and surveillance protocols and provides information on exotic pests including the Pest Information Document Database. This online information resource holds publicly available fact sheets and other kinds of information on serious exotic pests, which is frequently used by PHA members.

### Additional activities to mitigate risk

PHA's main activities are funded from annual subscriptions paid by members, allocated as detailed in each edition of PHA's Annual Operational Plan.

In addition, PHA is also commissioned to undertake many risk mitigation projects by individual members, groups of members in partnership and non-members. Often these non-subscription funded projects boost biosecurity for particular industries. Examples of non-subscription funded projects include industry funded biosecurity outreach officers, Emergency Plant Pest response simulations, and biosecurity manuals to inform growers.

For more information on PHA and its role in plant biosecurity see the PHA website [planthealthaustralia.com.au](http://planthealthaustralia.com.au).

Table 1. Plant Health Australia's members

Industry members	
Almond Board of Australia Inc	Avocados Australia Ltd
Apple and Pear Australia Ltd	CANEGROWERS
Australian Banana Growers' Council Inc	Canned Fruit Industry Council of Australia
Australian Blueberry Growers' Association Inc	Cherry Growers of Australia Inc
Australian Forest Products Association Limited	Chestnuts Australia Inc
Australian Ginger Industry Association Inc	Citrus Australia Ltd
Australian Honey Bee Industry Council Inc	Cotton Australia Ltd
Australian Lychee Growers' Association Inc	Dried Fruits Australia Inc
Australian Macadamia Society Ltd	Grain Producers Australia Limited
Australian Mango Industry Association Ltd	GROWCOM
Australian Melon Association Inc	Hazelnut Growers of Australia Inc
Australian Olive Association Ltd	Nursery and Garden Industry Australia Ltd
Australian Processing Tomato Research Council Inc	Onions Australia
Australian Sweetpotato Growers Inc	Passionfruit Australia Incorporated
Australian Table Grape Association Inc	Pistachio Growers' Association Incorporated
Australian Tea Tree Industry Association Ltd	Raspberries and Blackberries Australia Inc
Australian Truffle Growers' Association Inc	Ricegrowers' Association of Australia Inc
Australian Vigerons	Strawberries Australia Inc
Australian Walnut Industry Association	Summerfruit Australia Limited
AUSVEG Limited	
Government members	
Australian Capital Territory Government	South Australian Government
Commonwealth of Australia	Tasmanian Government
New South Wales Government	Victorian Government
Northern Territory Government	Western Australian Government
Queensland Government	
Associate members	
AgNova Technologies	Northern Territory Farmers Association Inc
Cotton Research and Development Corporation	Plant Biosecurity CRC Ltd
CSIRO	Sugar Research Australia
Grains Research and Development Corporation	Victorian Farmers Federation
Horticulture Innovation Australia Ltd	Vinehealth Australia
Lawn Solutions Australia	Wine Australia (Australian Grape and Wine Authority)

## National committees provide coordination

While state and territory governments have responsibility for implementing many biosecurity activities within their borders, a level of coordination is required between the jurisdictions and with the Australian Government.

National committees provide a formal mechanism for developing and coordinating key plant biosecurity policy and procedures that are nationally consistent. As such, Australia's plant biosecurity committee structure plays a major role in facilitating partnerships between governments.

Figure 5 shows the structure of Australian biosecurity committees that are tasked with national coordination of plant biosecurity.

PHA has observer status at National Biosecurity Committee, and is a member of Plant Health Committee and the three PHC subcommittees, as well as the majority of emergency response committees.

The Agriculture Senior Officials' Committee (AGSOC) is responsible for primary industry policy issues. AGSOC comprises the heads of primary industry government departments from the Australian Government, Australian states and territories and the New Zealand government. AGSOC is supported by the National Biosecurity Committee.

### NATIONAL BIOSECURITY COMMITTEE

The National Biosecurity Committee (NBC) is responsible for managing a national, strategic approach to biosecurity issues relating to plant and animal pests and diseases, marine pests and aquatics, and the impact of these on agriculture production, the environment, community wellbeing and social amenity.

A core objective of the committee is to promote cooperation, coordination, and consistency across and between Australian governments. The NBC has reporting responsibilities to ministers responsible for biosecurity through relevant Chief Executive Officers.

The Secretary of the Department of Agriculture and Water Resources chairs the NBC as a member of the AGSOC. The Australian Government is also represented by the Department of Agriculture and Water Resources Deputy Secretary responsible for biosecurity, and a Deputy Secretary from the Department of the Environment and Energy (or delegate). PHA and Animal Health Australia are observers.

Remaining members are senior representatives from primary industry or environment departments for each state and territory. Jurisdictions may have up to two representatives.

In 2017, as a result of the IGAB review (see page 30), the NBC decided to extend the scope of the Invasive Plants and Animals Committee (IPAC) to include the environment. As a result IPAC (see Figure 5) will become the Environmental and Invasives Committee.

### PLANT HEALTH COMMITTEE

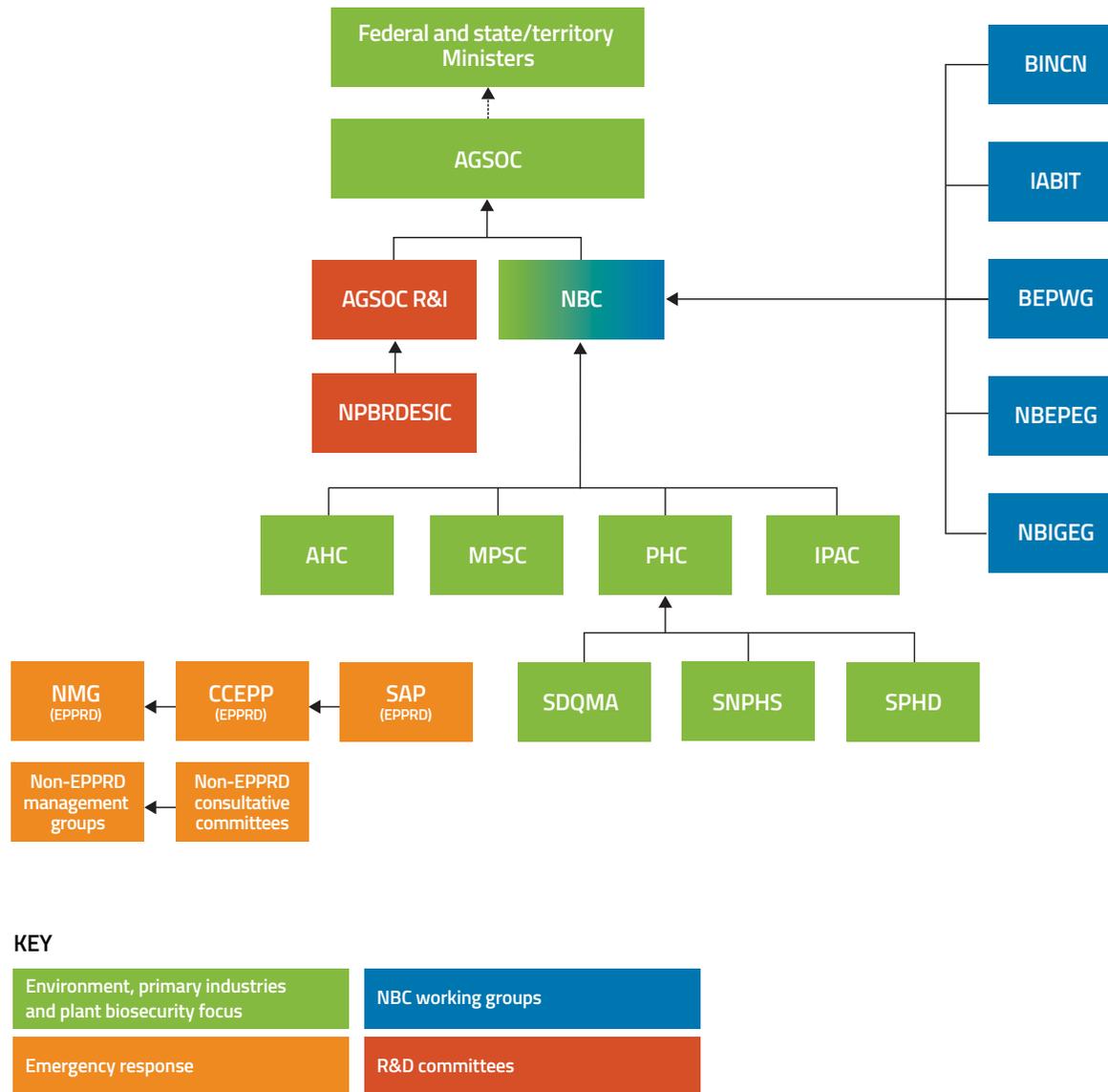
Plant Health Committee (PHC) is the peak government plant biosecurity policy forum. Its role is to maintain or improve plant health in Australia in support of the economy, environment and community. PHC provides strategic policy, technical and regulatory advice, and national leadership on plant biosecurity matters. It has responsibility for overseeing the implementation of the government aspects of the National Plant Biosecurity Strategy (NPBS) and the Intergovernmental Agreement on Biosecurity (IGAB) with respect to plant health. The Committee reports to the National Biosecurity Committee (NBC).

Through its subcommittees, currently the Subcommittee on Plant Health Diagnostics, Subcommittee on National Plant Health Surveillance and Subcommittee on Domestic Quarantine and Market Access, PHC also facilitates a consistent national approach to legislative outcomes and standards within the plant biosecurity sector.

PHC's membership comprises representatives from the Australian, state and territory governments. PHA and subcommittee chairs attend PHC meetings with observer status.

In 2017, PHC continued implementation of the National Plant Biosecurity Strategy, using the document as one of the main guiding principles when determining work area priorities. PHC also continued to progress various lines of work to support and maintain trade and market access, both domestically and internationally.

Figure 5. National biosecurity committees and working groups with plant focus



Abbreviations	
AGSOC	Agriculture Senior Officials' Committee
AGSOC R&I	Agriculture Senior Officials' Committee Research & Innovation Committee
AHC	Animal Health Committee
BEPWG	Biosecurity Emergency Preparedness Working Group
BINCN	Biosecurity Incident National Communication Network
CCEPP	Consultative Committee on Emergency Plant Pests
EPPRD	Emergency Plant Pest Response Deed
IABIT	Intergovernmental Agreement on Biosecurity Implementation Taskforce
IPAC	Invasive Plants and Animals Committee
MPSC	Marine Pest Sectoral Committee
NBC	National Biosecurity Committee
NBEPEG	National Biosecurity Emergency Preparedness Expert Group
NBIGEG	National Biosecurity Information Governance Expert Group
NMG	National Management Group
NPBRDESIC	National Plant Biosecurity Research, Development & Extension Strategy Implementation Committee
PHC	Plant Health Committee
SAP	Scientific Advisory Panel
SDQMA	Subcommittee on Domestic Quarantine and Market Access
SNPHS	Subcommittee on National Plant Health Surveillance
SPHD	Subcommittee on Plant Health Diagnostics

# Plant biosecurity frameworks and legislation

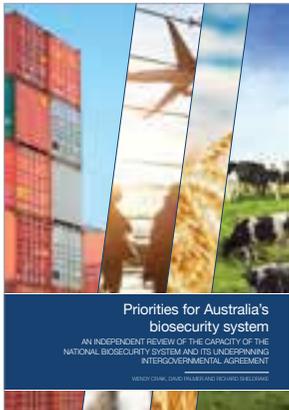
Australia's plant biosecurity system is supported by a suite of strategies, agreements, review reports, policies and legislation, developed over many years. These not only provide the current structure, but provide a vision of how the plant biosecurity system should operate into the future.

## INTERGOVERNMENTAL AGREEMENT ON BIOSECURITY

For governments Australia's partnership approach to biosecurity is cemented by the Intergovernmental Agreement on Biosecurity (IGAB), which came into effect in January 2012.

The IGAB was developed under the Council of Australian Governments to strengthen the working partnership between the Australian Government and state and territory governments. It defines roles and responsibilities and outlines priority areas for collaboration and improvements to the national biosecurity system. It ensures that all governments are working together in harmony on biosecurity issues.

Under the IGAB, key aspects of Australia's biosecurity system are becoming better coordinated. Areas addressed include mechanisms to allow emergency response information to be shared between governments, an improved model for managing nationally significant established pests, measures to improve the transparency and rigour of national decision making and investment and a national biosecurity research, development and extension strategy. A public information and stakeholder engagement framework with standardised tools for all jurisdictions has also been developed.



In 2016, the IGAB was reviewed by an independent panel and in July 2017, the final IGAB report *Priorities for Australia's biosecurity system* was presented to the Agriculture Ministers' Forum.

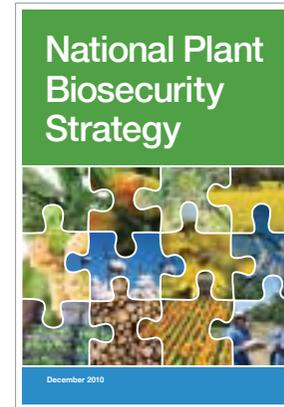
The report recognises the significant achievements of the IGAB including the strong and healthy working relationships it fosters between governments, and the development of sound national policy principles and frameworks for an effective and well-regarded system.

It also highlights a number of challenges for the system including a growing global population, increasing international trade and travel, loss of biodiversity, and ever-expanding urbanisation.

The report makes 42 recommendations aimed at strengthening Australia's biosecurity system over the next five to 10 years.

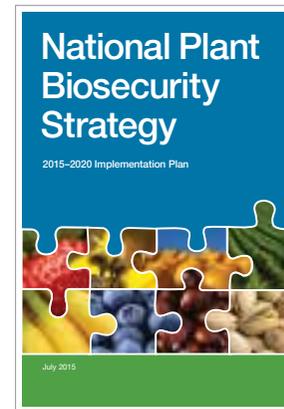
Agriculture ministers have agreed to develop a national, intergovernmental response to the findings and recommendations of the report through the National Biosecurity Committee.

## THE NATIONAL PLANT BIOSECURITY STRATEGY



The National Plant Biosecurity Strategy (NPBS) outlines a set of aims and activities to strengthen Australia's plant biosecurity system by 2020. PHA developed the strategy by drawing together the views of stakeholders across Australia, aligning them with the IGAB to ensure consistency.

The national strategy was finalised in December 2010 (prior to IGAB) with endorsement from PHA members, and in 2011 the process of implementing the recommendations began. With the benefits of many of the recommendations cutting across both industry and governments, responsibility for guiding the implementation process is shared among organisations and committees, based on their expertise.



Toward the end of 2014, halfway through its lifespan, PHA reviewed the strategy and assessed progress against each of the recommended activities and alignment with IGAB. An implementation plan that lists the remaining tasks to be completed was published in 2015.

All plant biosecurity stakeholders have a role to play in achieving the vision set out for 2020.

Implementation of government responsibilities is overseen by the Plant Health Committee (PHC), with specific input from the Subcommittee on Plant Health Diagnostics and the Subcommittee on National Plant Health Surveillance on implementing the diagnostic and surveillance aspects, respectively. The Subcommittee on Domestic

Quarantine and Market Access works to ensure consistency of biosecurity requirements across states and internationally.

Plant industries, PHA and research and development corporations are contributing to implementation through biosecurity preparedness activities such as developing contingency plans and prioritising threats through the industry biosecurity planning process.

The National Plant Biosecurity Strategy continues to provide the focus and strategic direction for national plant biosecurity activities and, through its implementation, will strengthen the plant biosecurity system.

## BIOSECURITY LEGISLATION

Australia's biosecurity system operates under Commonwealth, state and territory legislation, administered and managed by the respective government agricultural and environmental agencies. Legislation current at 31 December 2017 is listed in Table 2.

Legislation covers a range of activities involving the international movement of people and goods into Australia, movement of goods within the country and the export of agricultural commodities. There are also laws covering related aspects such as the collection of primary industry levies to cover the costs of biosecurity activities, reporting of suspicious pests and biosecurity incident responses.

The *NSW Biosecurity Act 2015* was assented to in September 2015 and came into effect during 2017. The new legislation aligns with *Queensland's Biosecurity Act 2014* in introducing into law the principle that everyone has a responsibility for mitigating biosecurity risks under their control, known as the general biosecurity obligation or duty. Other state and territory governments have indicated that they will also formalise this responsibility in legislation in future.

**Table 2. Plant biosecurity related legislation across Australia**

Jurisdiction	Administering authority	Legislation
Commonwealth	Department of Agriculture and Water Resources	<ul style="list-style-type: none"> <li>▪ <i>Biosecurity Act 2015</i></li> <li>▪ <i>Biosecurity (Consequential Amendments and Transitional Provisions) Act 2015</i></li> </ul>
Commonwealth	Department of the Environment and Energy	<ul style="list-style-type: none"> <li>▪ <i>Environment Protection and Biodiversity Conservation Act 1999</i></li> <li>▪ <i>Environment Protection and Biodiversity Conservation Regulations 2000</i></li> </ul>
ACT	Environment Planning and Sustainable Development Directorate	<ul style="list-style-type: none"> <li>▪ <i>Plant Disease Act 2002</i></li> <li>▪ <i>Pest Plants and Animals Act 2005</i></li> </ul>
NSW	Department of Primary Industries	<ul style="list-style-type: none"> <li>▪ <i>Biosecurity Act 2015</i></li> <li>▪ <i>Biosecurity Regulation 2017</i></li> <li>▪ <i>Biosecurity Order (Permitted Activities) 2017</i> and other supporting legislation such as Control Orders</li> </ul>
NT	Department of Primary Industries and Resources	<ul style="list-style-type: none"> <li>▪ <i>Plant Health Act 2008</i></li> <li>▪ <i>Plant Health Regulations 2011</i></li> </ul>
Queensland	Department of Agriculture and Fisheries	<ul style="list-style-type: none"> <li>▪ <i>Biosecurity Act 2014</i></li> <li>▪ <i>Biosecurity Regulation 2016</i></li> </ul>
SA	Primary Industries and Regions	<ul style="list-style-type: none"> <li>▪ <i>Plant Health Act 2009</i></li> <li>▪ <i>Plant Health Regulations 2009</i></li> </ul>
Tasmania	Department of Primary Industries, Parks, Water and Environment	<ul style="list-style-type: none"> <li>▪ <i>Plant Quarantine Act 1997</i></li> <li>▪ <i>Weed Management Act 1999</i></li> </ul>
Victoria	Department of Economic Development, Jobs, Transport and Resources	<ul style="list-style-type: none"> <li>▪ <i>Plant Biosecurity Act 2010</i></li> <li>▪ <i>Plant Biosecurity Regulations 2016</i></li> </ul>
WA	Department of Primary Industries and Regional Development	<ul style="list-style-type: none"> <li>▪ <i>Biosecurity and Agricultural Management Act 2007</i></li> </ul>