

National Plant Biosecurity



Preparedness Strategy

2021-2031



Australian Government
Department of Agriculture,
Water and the Environment

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Acronyms

EPP	Emergency Plant Pest
IGAB	Intergovernmental Agreement on Biosecurity
NPBS	National Plant Biosecurity Strategy
PBPSWG	Plant Biosecurity Preparedness Strategy Working Group
PBPWG	Plant Biosecurity Preparedness Working Group
PHA	Plant Health Australia
PHC	Plant Health Committee

Executive summary

The National Plant Biosecurity Preparedness Strategy (the strategy) provides a framework to develop the capabilities required to prepare for and manage plant biosecurity risks across Australia. It is one of several strategies that supports the broader national biosecurity system through its alignment with the Intergovernmental Agreement on Biosecurity (IGAB) and the National Plant Biosecurity Strategy (NPBS).

The strategy's vision for 2031 is a resilient plant biosecurity system that identifies and reduces risk, and works to minimise the impact of biosecurity incidents to Australia's plant industries, economy, environment and community. Achieving this shared vision requires collective effort nationally along with the people, resources, infrastructure, policies, standards and tools to address the most important priorities for Australia's plant biosecurity system.

The strategy is based around five interconnected goals shown below. Each goal is supported by a series of actions that will guide and support national policy and inform investment in research, development and extension. The actions can also be used to guide state/territory, regional and local efforts or efforts by individual governments, plant industries and stakeholder groups.

 Goal 1	Stronger national and international connections
 Goal 2	Enhanced and improved capacity and capability to mitigate and respond to plant biosecurity risks
 Goal 3	Enhanced participation and achievement of biosecurity outcomes
 Goal 4	Production and environmental assets protected and market access maintained
 Goal 5	Recovery and management supported during and following plant biosecurity incursions

The strategy applies to plant pests and weeds that impact Australia's plant industries, environment and community. For the purpose of the strategy, plant pests are defined as any species, strain or biotype of invertebrate or pathogen injurious to plants, plant products or bees. The application of the strategy to weeds covers exotic weed species and declared weed species not known to be established in a particular jurisdiction.

It builds upon the achievements and momentum of previous actions and successes, and provides continued benefits for the national plant biosecurity system through the following outcomes:

- improved plant biosecurity preparedness delivery through collaborative partnerships between stakeholder groups nationally and internationally
- skilled people, contemporary systems and technologies that are prepared to mitigate plant biosecurity risks and are response ready
- improved participation in preparedness activities through a greater awareness of plant biosecurity risks
- reduced impact of plant biosecurity incursions on the environment, community, trade and market access
- plant industries, the environment and communities recover rapidly and fully after a biosecurity incident.

The successful implementation of the strategy will deliver an effective and efficient approach to strengthen Australia's level of preparedness. It will also result in an improved national plant biosecurity system that will manage risks to Australia's plant industries, environment and community while supporting trade and market access.

National Plant Biosecurity Preparedness Strategy at a glance

Vision	A resilient plant biosecurity system that identifies and reduces risk, and works to plant industries, economy, environment and community		
Goals	 <p>1 Stronger national and international connections</p>	 <p>2 Enhanced and improved capacity and capability to mitigate and respond to plant biosecurity risks</p>	 <p>3 Enhanced participation and achievement of biosecurity outcomes</p>
Actions	<p>1.1 Establish a shared and agreed understanding of roles and responsibilities of stakeholders involved in the national plant biosecurity system.</p> <p>1.2 Establish ongoing forums for stakeholders to focus on plant biosecurity preparedness activities.</p> <p>1.3 Grow partnerships to prevent the entry of plant biosecurity threats and identify control and management options relevant to the Australian context.</p>	<p>2.1 Identify and address current and emerging capacity and capability gaps across the national plant biosecurity system.</p> <p>2.2 Develop and implement tools to improve the detection, identification and prioritisation of plant pests and weeds.</p> <p>2.3 Address barriers and establish incentives to improve engagement and the adoption of plant biosecurity practices.</p> <p>2.4 Develop and deliver training and simulation exercises to test preparedness to biosecurity incidents.</p>	<p>3.1 Develop material to promote awareness of obligations and responsibilities of stakeholders across the national plant biosecurity system.</p> <p>3.2 Implement national education campaigns to increase awareness of plant biosecurity risks, management actions and the principle of shared responsibility.</p> <p>3.3 Support efforts that recognise and celebrate stakeholder contributions to the national plant biosecurity system.</p>
Expected outcomes	Improved plant biosecurity preparedness delivery through collaborative partnerships between stakeholder groups nationally and internationally	Skilled people, contemporary systems and technologies that are prepared to mitigate plant biosecurity risks and are response ready	Improved participation in preparedness activities through a greater awareness of plant biosecurity risks
Implementation	National Plant Biosecurity Preparedness Strategy		

minimise the impact of biosecurity incidents to Australia's



4 Production and environmental assets protected and market access maintained

- 4.1 Develop and maintain contingency material and/or environmental asset management plans for plant biosecurity risks.
- 4.2 Establish domestic market access arrangements prior to the detection of exotic plant pests.
- 4.3 Establish pre-emptive arrangements for the containment and control of exotic plant pests and weeds.

Reduced impact of plant biosecurity incursions on the environment, community, trade and market access



5 Recovery and management supported during and following plant biosecurity incursions

- 5.1 Develop and maintain a national model for funding recovery efforts for affected communities, businesses, industries and the environment.
- 5.2 Develop and maintain capability to provide immediate relief to affected communities, industries and the environment during a response.
- 5.3 Develop national partnership arrangements for responding to Emergency Plant Pests that are not (or unlikely to be) technically feasible to eradicate.

Plant industries, the environment and communities recover rapidly and fully after a biosecurity incident

Implementation Plan and action plans

Introduction

Australia's plant biosecurity system is dependent on a wide and diverse range of stakeholders including governments, plant industries and the community. The ability of these stakeholders to effectively cooperate and collaborate requires well-developed preparedness and response arrangements across the biosecurity continuum encompassing pre border, border, and post border activities.

A strengthened level of preparedness requires an understanding of introduction pathways along with the risks associated with these pathways. A number of components are required to enhance the capabilities required to prepare for and manage these risks, each of which are necessary to improve existing arrangements across Australia.

1. **Understand biosecurity risks** – Awareness of the key threats requires environmental scanning and analysis to identify the high likelihood and high consequence risks together with the assessment of the capacity and capability needed to manage those risks.
2. **Strengthen collaboration and coordination** – Preparedness for biosecurity incidents requires 'all of-community' engagement and partnership with clear articulation of responsibilities.
3. **Invest in preparedness** – Responsibilities are shared by government and plant industries to develop and maintain the capability and capacity to respond to, and recover from, biosecurity incidents.
4. **Learn from experience** – Applying the lessons learnt during biosecurity incidents and exercises to future preparedness and responses builds capability.

Challenges

While significant activity has occurred over the last decade to strengthen Australia's level of preparedness, a range of existing, emerging and growing challenges are increasing the threat of biosecurity risks.

These include factors such as globalisation, international and interstate movement, climate change, tourism and the increasing volume of goods moved¹²³⁴. Further compounding these challenges is a number of other trends including the emergence of new plant pests and new pathways (such as online retailers), the shifting geographic spread of existing plant pests and weeds, agricultural expansion and intensification, increased urbanisation and changing land uses⁵. In conjunction with these increasing challenges and trends, there is an ongoing competition for resources across the national plant biosecurity system.

All these factors have combined to place significant pressure on the ability of participants to meet their biosecurity responsibilities, national biosecurity obligations and respond to new and emerging pest risks and pathways.

At the same time, overseas markets for primary produce are becoming more competitive as trading partners strengthen their own biosecurity systems and requirements. Consumer preferences and expectations for information on food safety and quality are driving a greater need to ensure production systems are ethical, effective and safe. Part of these expectations include a growing need to maintain Australia's favourable biosecurity status over the next decade and into the future.

Fundamental to address this need will be a renewed focus to ensure Australia has the people, resources, infrastructure, policies, standards and tools to address the most important priorities for Australia's plant biosecurity system.

- 1 CSIRO 2014, Australia's biosecurity future: preparing for future biological challenges, Commonwealth Scientific and Industrial Research Organisation, Canberra.
- 2 Grafton, Q, Mullen, J & Williams, J 2015, Australia's agricultural future: returns, resources, and Risks, final report for the Australian Council of Learned Academics, Melbourne.
- 3 Hajkowicz, S & Eady, S 2015, Rural industry futures: Megatrends impacting Australian agriculture over the coming twenty years, report prepared for the Rural Industries Research and Development Corporation, Canberra.
- 4 Cope, R, Ross, J, Wittmann, T, Prowse T & Cassey, P 2016, Integrative analysis of the physical transport network into Australia, PLOS ONE.
- 5 Craik, W., Palmer, D. & Sheldrake, R. 2017, Priorities for Australia's biosecurity system: An independent review of the capacity of the national biosecurity system and its underpinning Intergovernmental Agreement, prepared for the Department of Agriculture and Water Resources, Canberra, Australia. Available at www.agriculture.gov.au/igabreview.

This strategy focuses on addressing these challenges over the next ten years through provision of a long-term policy focus, coupled with a process of regular monitoring, review and reporting against the goals and actions. The strategy aims to remain agile and responsive to the changing and demanding biosecurity environment expected over the next decade.

Consultation and development

This strategy has been developed through consultation with a wide range of plant biosecurity stakeholders including:

- plant biosecurity and environment representatives in Australian, state and territory governments
- plant industry bodies
- research and development corporations
- research bodies
- local government authorities
- environmental groups
- community groups and
- growers.

Direction and advice to inform development of the strategy was provided by the Plant Biosecurity Preparedness Strategy Working Group (PBPSWG)⁶ led by PHA and the Plant Biosecurity Preparedness Working Group (PBPWG)⁷ of the Plant Health Committee (PHC). The PBPSWG included membership from plant industry bodies, PHA, the Invasive Species Council and Australian, state and territory governments.

Members of the PBPSWG and the list of organisations/groups engaged are provided in Appendix 2 – Stakeholder consultation.

6 PBPSWG was formed by PHA to contribute to the development of the National Plant Biosecurity Preparedness Strategy and implementation plan for the strategy.

7 PBPWG reports to PHC and aims to improve priority plant pest and system preparedness through national coordination of government preparedness activities.

National approach to plant biosecurity

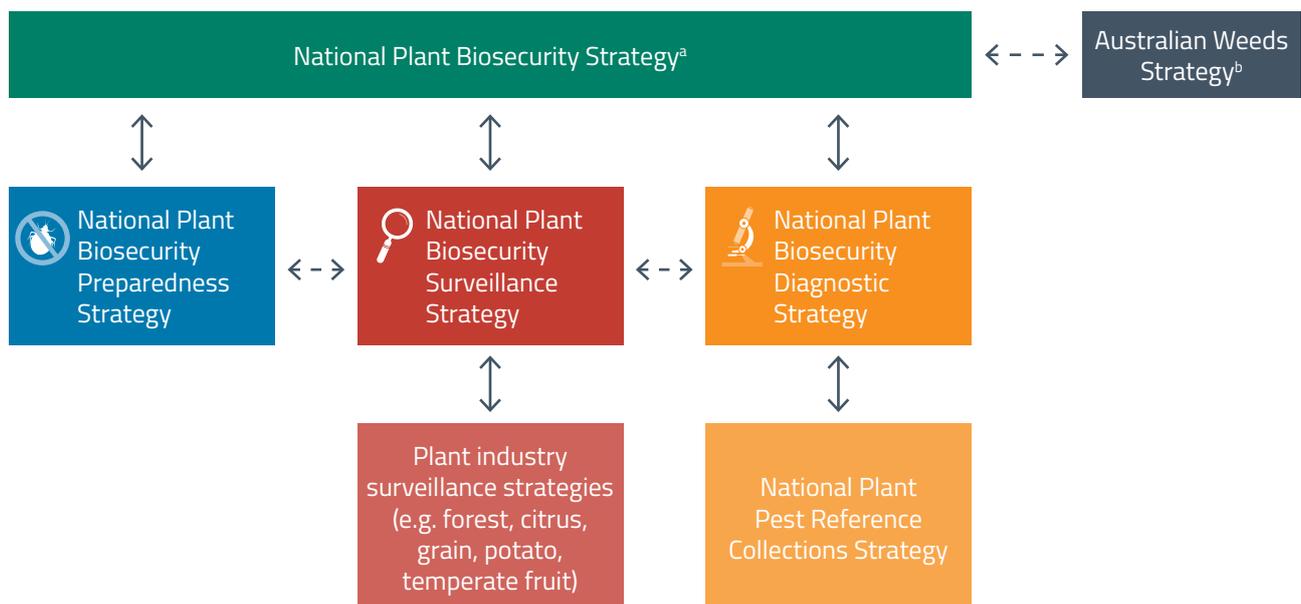
Australia's plant biosecurity system is built on a shared responsibility between a diverse range of stakeholders including all levels of government, plant industry bodies, growers, research organisations, environmental groups, natural resource managers, supply chains and the wider community (e.g. Aboriginal and Torres Strait Islander peoples and communities, education institutions and the general public). This means everyone takes responsibility for biosecurity matters, whether under their direct control or not, and everyone has an obligation to take action to protect Australia from plant pests and weeds.

The Australian Government and state and territory governments work under the principles set out in the IGAB. The IGAB aims to strengthen Australia's biosecurity system, enhance national collaboration among Australian governments, and support our biosecurity system to meet current and future challenges. The current version of the agreement was ratified in January 2019 and replaced the previous IGAB which came into effect in 2012.

This strategy aligns with the IGAB and underpins the overarching NPBS. The NPBS is a ten-year plan that outlines a set of goals and actions to strengthen Australia's plant biosecurity system. The strategy has provided the focus and strategic direction for national plant biosecurity activities since 2010, and drives the way governments, plant industries and the community to work closely together.

This strategy also complements other national strategies—the National Plant Biosecurity Surveillance Strategy, National Plant Biosecurity Diagnostic Strategy and Australian Weeds Strategy—to further strengthen plant biosecurity arrangements over the next decade. Figure 1 shows the relationship between key plant biosecurity strategies at the national level.

Figure 1. Key national strategies relevant to plant biosecurity



a The National Plant Biosecurity Strategy Implementation Group has oversight of the National Plant Biosecurity Strategy and its three sub-strategies on preparedness, surveillance and diagnostics.

b The Environment and Invasives Committee has oversight of the Australian Weeds Strategy.

Scope of the strategy

This strategy focuses on improved outcomes for the national plant biosecurity system and applies to plant pests and weeds that impact Australia's plant industries, environment and community.

For the purpose of this strategy, plant pests are defined as any species, strain or biotype of invertebrate or pathogen injurious to plants, plant products or bees.

The application of the strategy to weeds primarily covers exotic weed species and declared weed species not known to be established in a particular jurisdiction, which pose high potential impacts. It supports those aims of the Australian Weeds Strategy⁸ that relate to preparedness. Weeds are also included in this strategy where they may be important vectors, reservoirs and alternative hosts for plant pests.

While plant health surveillance and diagnostics are both part of preparedness, this strategy does not focus specifically on activities for surveillance and diagnostics as these are covered in the National Plant Biosecurity Surveillance Strategy and the National Plant Biosecurity Diagnostic Strategy.

This strategy does not address preparedness for operational aspects of emergency response which is covered by the broader collaborative work of government under the IGAB and the National Biosecurity Committee and by other biosecurity partners.

The strategy does not identify resourcing or funding sources to deliver the goals and actions. Guidance on the specific tasks required for each action, including organisations and/or groups with responsibility for implementing each task, resources required and timeframes, will be provided in detailed action plans to support implementation of the strategy.

⁸ Invasive Plants and Animals Committee 2016, Australian Weeds Strategy 2017 to 2027, Australian Government Department of Agriculture and Water Resources, Canberra. Available at <https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/pests-diseases-weeds/consultation/aws-final.docx>

Guiding principles

The strategy is guided by the following principles which together help ensure the national plant biosecurity system manages risks to Australia's plant industries, environment and community while supporting trade and market access:

1



An effective biosecurity continuum

An effective biosecurity system manages the pre-border, border and post-border elements (the biosecurity continuum) to mitigate risks.



2



Collaboration

Biosecurity is a responsibility shared between all governments, plant industries, natural resource managers, land custodians or users, and the community.



3



Evidence-based

Biosecurity activities are undertaken according to a cost-effective, science based and risk-managed approach.



4



Coordination

Biosecurity activities are well coordinated to ensure resources are targeted towards agreed national priorities.



Strategic direction to 2031

The strategy identifies five interconnected goals to achieve the vision to 2031. The goals and expected outcomes are:

	1	2	3	4	5
Goals	 <p>Stronger national and international connections</p>	 <p>Enhanced and improved capacity and capability to mitigate and respond to plant biosecurity risks</p>	 <p>Enhanced participation and achievement of biosecurity outcomes</p>	 <p>Production and environmental assets protected and market access maintained</p>	 <p>Recovery and management supported during and following plant biosecurity incursions</p>
Expected outcomes	Improved plant biosecurity preparedness delivery through collaborative partnerships between stakeholder groups nationally and internationally	Skilled people, contemporary systems and technologies that are prepared to mitigate plant biosecurity risks and are response ready	Improved participation in preparedness activities through a greater awareness of plant biosecurity risks	Reduced impact of plant biosecurity incursions on the environment, community, trade and market access	Plant industries, the environment and communities recover rapidly and fully after a biosecurity incident

Implementation plan

Each goal is supported by a series of actions that are described in this section. More information on the implementation of the strategy, including performance measures, key contributors and indicative timeframes for delivery⁹, is available in the National Plant Biosecurity Preparedness Strategy Implementation Plan. The implementation plan also sets out governance arrangements for the strategy along with provisions for review and reporting.

⁹ All timeframes are indicative and should not preclude the commencement of any actions before the date set out in the implementation plan.



GOAL 1

**STRONGER NATIONAL AND
INTERNATIONAL CONNECTIONS**

EXPECTED OUTCOME:

Improved plant biosecurity preparedness delivery through collaborative partnerships between stakeholder groups nationally and internationally

ACTION 1.1:

Establish a shared and agreed understanding of roles and responsibilities of stakeholders involved in the national plant biosecurity system

Managing plant biosecurity risks and protecting our biosecurity status is a shared responsibility among a wide range of stakeholders. Previously, the roles and responsibilities for system participants have not been clearly understood, coordinated or broadly consulted and agreed.

An important step in realising a shared responsibility is identifying, establishing and assigning roles and responsibilities for all plant biosecurity stakeholders. These stakeholders include all levels of government, plant industry bodies, growers, research organisations, universities, environmental groups, natural resource managers, supply chains and the wider community. They also include overseas trading partners and near neighbours.

Once agreed, there is a need to ensure everyone is aware of and acknowledges their roles, responsibilities and accountabilities as well as those of other system participants. This will ensure that stakeholders meet their biosecurity obligations and can effectively identify and respond to the challenges facing the system.

ACTION 1.2:

Establish ongoing forums for stakeholders to focus on plant biosecurity preparedness activities

A number of national plant biosecurity preparedness-focused groups and forums have been formed in recent years. While these platforms have supported a range of specific projects, they are often temporary in nature and would benefit from being conducted in a coordinated manner.

Ongoing and nationally coordinated groups, committees, networks and forums to discuss plant biosecurity preparedness and deliver positive outcomes will help reduce duplication of effort and promote the sharing of information. This should focus on bringing together the views of stakeholders identified through Action 1.1 such as government, plant industries, environmental groups and the wider community (including Aboriginal and Torres Strait Islander peoples and communities) to help everyone better manage biosecurity risks and prepare for the impact of plant pests and weeds.

In some cases, existing arrangements will continue provide an appropriate mechanism for collaboration. In other instances, new arrangements will need to be developed. This could include strengthening connections with international forums that have already been established, or the formation of a new subcommittee under PHC on plant biosecurity preparedness that includes plant industries.

Action 1.3:

Grow partnerships to prevent the entry of plant biosecurity threats and identify control and management options relevant to the Australian context

Domestic and international partnerships are not only important for 'peace' time to keep plant pests and weeds offshore and address emerging risks but are also vital if, and when, a plant biosecurity incursion occurs to facilitate better cooperation during a response.

Through this action, pre-border activities should be undertaken to reduce the risk of plant pests and weeds entering Australia. Activities should focus on growing connections with neighbouring countries and international bodies to identify tools or protocols to mitigate and respond to plant biosecurity risks. There is also value in extending collaboration within Australia through connecting with various stakeholder groups and different sectors with similar purposes (e.g. animal and human health, biodiversity) where similar technologies, challenges and policies exist.

The ability to grow productive and mutually beneficial partnerships will ensure that resources are prioritised and used more effectively. It will also assist with intelligence gathering and best-practice knowledge sharing of pest biology, ecology, behaviour and management.



GOAL 2

**ENHANCED AND IMPROVED
CAPACITY AND CAPABILITY
TO MITIGATE AND RESPOND
TO PLANT BIOSECURITY RISKS**

EXPECTED OUTCOME:

Skilled people, contemporary systems and technologies that are prepared to mitigate plant biosecurity risks and are response ready

ACTION 2.1:

Identify and address current and emerging capacity and capability gaps across the national plant biosecurity system

The ability to strengthen Australia's level of preparedness is challenged by the capacity and capability of participants to effectively undertake activities to prepare for and manage plant biosecurity risks associated with plant pests and weeds.

In order to ensure the required capabilities can be sustained, there is a requirement to have a clear understanding of the capability requirements to effectively carry out preparedness activities. There is also a need to identify the current and emerging gaps in capabilities (people, resources, systems, governance and processes) and address these gaps through reasonable measures. Options to enhance and develop capabilities could include training (Action 2.4), awareness activities (Action 3.2), access to registered chemicals (Action 4.3), targeted recruitment and the use of new technologies.

Successfully identifying these gaps and implementing measures to address them will ensure that individuals, groups and organisations are empowered and maintain an appropriate level of skills and expertise. It will also help foster partnerships across a range of groups and sectors, and improve the ability to generate timely and appropriate surge capacity during emergencies.

ACTION 2.2:

Develop and implement tools to improve the detection, identification and prioritisation of plant pests and weeds

The continued development of new and improved tools is critical to managing current and future biosecurity risks. This is particularly important given the size of Australia and our relatively sparse population, and the number of crops/plant types, environments and potential targets that must be addressed.

Practical and easy to use tools are needed to improve the detection, identification and prioritisation of plant pests and weeds. In partnership with plant industries and other stakeholders as appropriate, development of these tools should consider a range of factors including new research, incursions overseas and changes to potential entry pathways.

The successful adoption of these tools will improve system efficiency and ensure participants are skilled and responsive. It will also support early detection or market access outcomes, and form the foundations for plant industries to actively participate and support the system.

ACTION 2.3:

Address barriers and establish incentives to improve engagement and the adoption of plant biosecurity practices

Motivating people about plant biosecurity and good plant biosecurity practices is an ongoing challenge. This covers many different areas and groups including government staff, small- and large-scale plant industries, environmental groups, supply chain participants, hobby farmers and the wider community, especially culturally and linguistically diverse populations.

Understanding the differences across system participants, and their values and perceptions of plant biosecurity, will help develop more targeted and effective engagement approaches. While there is already work progressing in this area in Australia and overseas, continued efforts will help improve participation and support delivered to participants while ensuring information flows are simplified, more targeted and delivered through appropriate mechanisms.

The ability to identify the barriers to participation will provide a useful basis to design incentives to overcome the barriers and promote the benefits. The incentives identified through this action could also help inform efforts that recognise and celebrate stakeholder contributions to the national plant biosecurity system (Action 3.3).

ACTION 2.4:

Develop and deliver training and simulation exercises to test preparedness to biosecurity incidents

The ability to deal with a significant incursion requires people with the appropriate skills, knowledge and experience at all levels of a response. Where this is not possible, suitable training, coaching and/or mentoring should be provided.

A national program of training and simulation exercises for the plant biosecurity system will help build preparedness and test readiness for an incursion. Training material for plant pests and weeds should continue to be made available through a variety of formats and platforms to accommodate different learning styles and accessibility. Tailored simulation exercises for plant pests should also be delivered regularly to support other forms of training and test specific aspects of a response.

The design and development of these activities should consider known gaps in capability across the national plant biosecurity system, including those identified through Action 2.1. Learning experiences from other exercises or real life responses should also be considered to ensure those learnings are addressed to enhance preparedness for future responses.



GOAL 3

**ENHANCED PARTICIPATION
AND ACHIEVEMENT OF
BIOSECURITY OUTCOMES**

EXPECTED OUTCOME:

Improved participation in preparedness activities through a greater awareness of plant biosecurity risks

ACTION 3.1:

Develop material to promote awareness of obligations and responsibilities of stakeholders across the national plant biosecurity system

Australia's biosecurity system is built on the principle of shared responsibility among all system participants including governments, plant industry bodies, exporters and importers, farmers, miners, tourists, researchers and the wider community. However, for many, this is a challenging concept to understand and embrace.

The development of sound and contemporary guidance material targeted at plant biosecurity stakeholders identified through Action 1.1 will support efforts to make Australians more aware of plant biosecurity risks and acknowledge their obligations and responsibilities. It will also help stakeholders acknowledge the benefits of compliance within these responsibilities and facilitate the uptake and normalisation of plant biosecurity issues in the collective thinking of system participants.

Options for this material could include the development of case studies, guidelines, examples of best practice, or standards such as nationally recognised best practice standards for businesses and community organisations who manage biosecurity risks. It is recommended that the material developed is effectively promoted and periodically reviewed and updated to ensure it remains accurate, relevant and fit for purpose.

ACTION 3.2:

Implement national education campaigns to increase awareness of plant biosecurity risks, management actions and the principle of shared responsibility

Large and sustained national education campaigns will be key to increase plant biosecurity awareness and encourage biosecurity action. This should integrate with other sectors and target high-risk plant biosecurity stakeholder groups identified through Action 1.1. It could prioritise awareness raising for school-aged children to help educate the next generation as well as volunteer and community groups already involved in environment and land management.

The mechanisms used should be appropriate to the communication and information needs of the range of plant biosecurity stakeholders and regularly evaluated to determine their effectiveness. Options could include general advertising, web-based campaigns, information kits, site visits and educational television. They should also consider the outcomes of Action 3.1 where guidance material to help make stakeholders aware of their general biosecurity obligations will be developed.

Through the successful delivery of national education campaigns, Australians will be more aware and knowledgeable about plant biosecurity risks and management actions. It will also help normalise good biosecurity behaviour and realise the principle of shared responsibility by ensuring that everyone is aware of and acknowledge their roles and responsibilities and those of other system participants.

ACTION 3.3:

Support efforts that recognise and celebrate stakeholder contributions to the national plant biosecurity system

For many years, the Australian Biosecurity Awards have provided a way to celebrate individuals, groups and organisations that have worked to strengthen the national biosecurity system. Already the awards feature multiple categories that recognise the wide range of stakeholders and the diverse aspects of the plant biosecurity national system.

It is recommended that these awards are continued and broadened over time to include new categories and sectors that align with new areas of focus for plant biosecurity. Opportunities for other incentives that recognise and celebrate positive stakeholder contributions to plant biosecurity should also be investigated, such as continuity insurance and regulatory relief for high health production systems. The incentives identified as part of this action should consider the outcomes of Action 2.3.

A strong culture of recognition will help foster a sense of purpose and reinforce that the efforts and contributions of plant biosecurity stakeholders are appreciated. It could also serve as a primary source of information for others on good biosecurity practices.



GOAL 4

**PRODUCTION AND
ENVIRONMENTAL ASSETS
PROTECTED AND MARKET
ACCESS MAINTAINED**

EXPECTED OUTCOME:

Reduced impact of plant biosecurity incursions on the environment, community, trade and market access

ACTION 4.1:

Develop and maintain contingency material and/or environmental asset management plans for plant biosecurity risks

Coverage of priority pests with contingency plans has increased over the last decade although there are many High Priority Pests or National Priority Plant Pests without coverage.

The continued development of contingency material for plant biosecurity risks and export market access risks will provide different businesses, plant industries and sectors with detailed information to improve readiness for a particular exotic plant pest risk. Efforts should focus on improving the way contingency material is developed and delivered to increase functionality and better tailor the content to the needs of stakeholders. Once developed, there is value in testing contingency material through national simulation exercises in advance of an incursion (Action 2.4).

A range of documents that guide and inform the management of a range of environmental assets (e.g. national parks, conservation areas, reserves, community parks and other places) already exist, yet they may not take into account plant biosecurity risks. Working with managers of environmental assets to include this consideration will ensure there is appropriate awareness and should help inform improvements in preparedness and response capabilities.

ACTION 4.2:

Establish domestic market access arrangements prior to the detection of exotic plant pests

Having pre-agreed domestic market access arrangements in place prior to the detection of exotic plant pests will assist in minimising any disruption to the domestic trade of plants and plant products. It will also help provide continuity of market access by allowing some businesses to continue trade in the event of an incursion.

There is value in these arrangements being developed for eradicable plant pests so trade can continue during responses, as well as plant pests that are not good candidates for eradication. The identification of these plant pests should be informed by the outcomes of Action 5.3, with efforts helping reduce barriers to

reporting and promote a willingness to report new plant pests early. There is also scope to consider improvements to the domestic market access system to protect against the spread of regionalised plant pests and provide support during responses.

Options could include the development of a biosecurity assurance system, nationally agreed market access procedures or protocols. There is a need to ensure the arrangements developed are adequately supported by existing systems. They should also be clearly communicated with stakeholders, including growers, in a timely manner to increase awareness and ensure they are understood across the system.

ACTION 4.3:

Establish pre-emptive arrangements for the containment and control of exotic plant pests and weeds

Establishing appropriate arrangements prior to the detection of exotic plant pests and weeds will help manage an outbreak in the early stages. It will also contribute to social license and assist in minimising any disruption to the domestic trade of plants and plant products and/or damage to the environment.

These arrangements could include the use of pre-agreed chemicals, biological control agents and other approaches informed by long term research and development. It is recommended that initial efforts are prioritised towards high-risk plant pest and weed threats to ensure that, where possible, arrangements are available for response programs, use in the event of the eradication failing or asset protection of the environment.



GOAL 5

**RECOVERY AND MANAGEMENT
SUPPORTED DURING
AND FOLLOWING PLANT
BIOSECURITY INCURSIONS**

EXPECTED OUTCOME:

Plant industries, the environment and communities recover rapidly and fully after a biosecurity incident

ACTION 5.1:

Develop and maintain a national model for funding recovery efforts for affected communities, businesses, industries and the environment

Resourcing to support recovery efforts associated with a plant biosecurity incursion is an ongoing challenge and a better approach is needed to support the national plant biosecurity system into the future.

The development of a national model for funding recovery activities will provide an integrated and consistent approach to support the social, economic and physical recovery of affected communities, businesses, plant industries and the environment. It will also assist in environmental maintenance or restoration activities in relation to biosecurity incidents associated with plant pests and weeds.

ACTION 5.2:

Develop and maintain capability to provide immediate relief to affected communities, industries and the environment during a response

The scoping, development and implementation of recovery plans can be a prolonged effort and affected communities may need more immediate support to minimise the impacts of the biosecurity incident and response operations. This can especially be the case where the identification and emergence of all production, social, economic and environmental consequences may take time.

Immediate 'relief', shorter-term and more rapidly implemented support, is needed to meet the needs of affected producers and their communities to continue to function during periods of lost employment or income, movement restrictions and social isolation. This includes agricultural communities as well as those reliant on the environment for income.

Options for providing this support could include the development of agreed national recovery principles and investigating alternative income for affected plant industries.

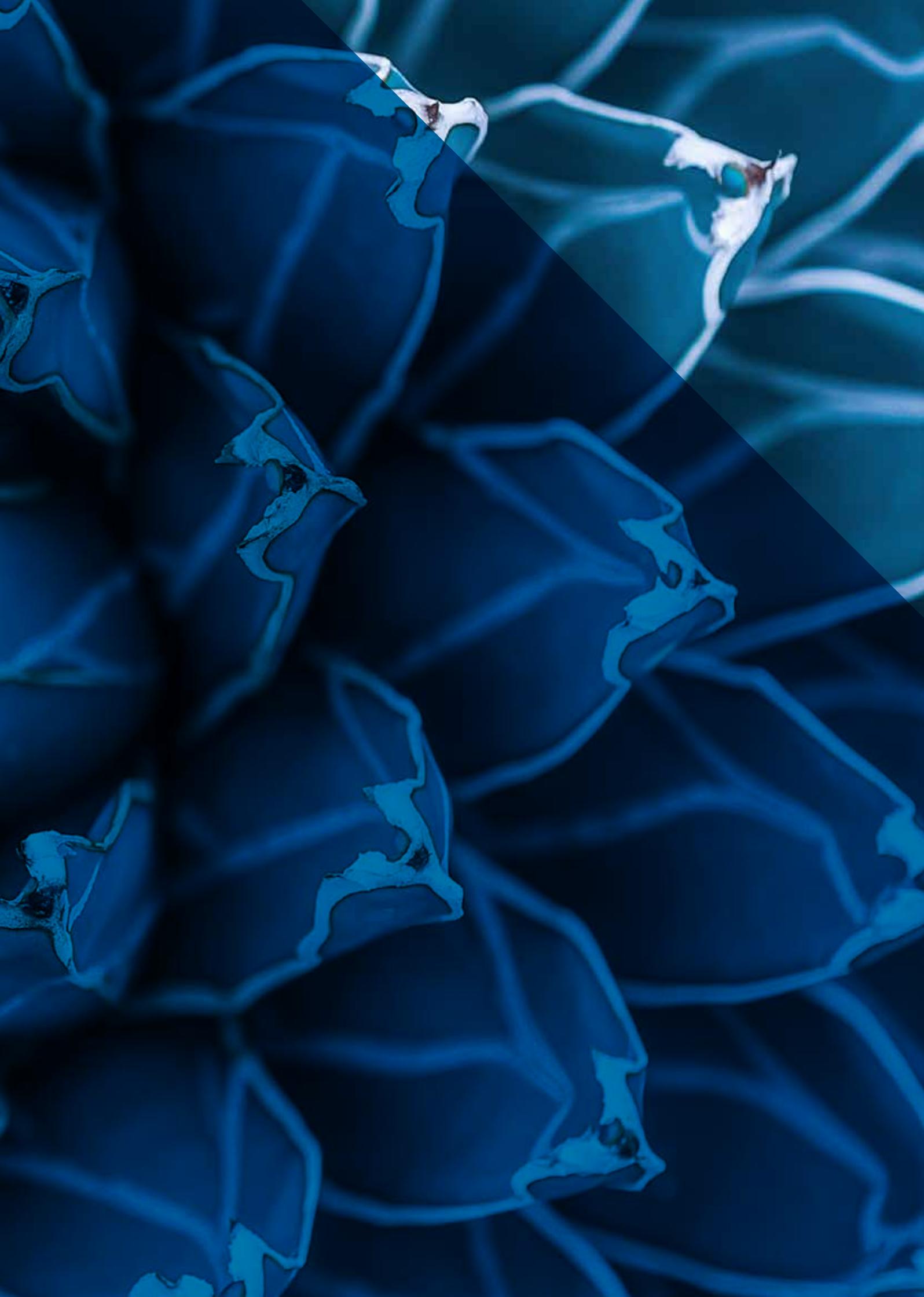
ACTION 5.3:

Develop national partnership arrangements for responding to Emergency Plant Pests that are not (or unlikely to be) technically feasible to eradicate

Significant resources are invested in national plant pest eradication programs. However, there are occasions where an Emergency Plant Pest (EPP) that enters Australia may not be suitable for eradication. In these circumstances, there is a requirement for national partnership arrangements for managing responses in the short to medium term.

It is recommended that such arrangements include the necessary leadership, coordination, management and communication to ensure that when a biosecurity incursion occurs, roles and responsibilities are understood, and operational actions are rapid and effective.

This will provide a consistent and agreed national approach for responding to EPPs that are not (or unlikely to be) technically feasible to eradicate. It will also deliver an integrated approach to the funding and management of these plant pests to enhance Australia's preparedness and response capability.



Glossary

Biosecurity continuum	Describes the range of locations where biosecurity risks may arise and where biosecurity activities take place – pre-border, at the border and post border.
Commonwealth	The Commonwealth of Australia, including its external territories.
Declared weed species	Weeds that are regulated under legislation due to their threat to primary industries, the natural environment and public safety. Plants are declared under the provisions of an Act or Local Law relating to their movement, sale, notification and control.
Diagnostics	Processes and standards associated with the accurate identification of a pest or host.
Emergency Plant Pest (EPP)	Has the meaning given in Clause 1 of the Emergency Plant Pest Response Deed.
Emergency response	The actions taken in anticipation of, during and immediately after, an outbreak to ensure that its impacts are minimised and may include actions constituting an initial response to an outbreak; and actions that form part of a national biosecurity incident response.
Endemic plant pest	A plant pest which is native to Australia or an established plant pest which is not subject to containment and is therefore unlikely to be eradicated.
Environment	Includes: <ul style="list-style-type: none">(a) ecosystems and their constituent parts, including people and communities; and(b) natural and physical resources; and(c) the qualities and characteristics of locations, places and areas; and(d) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b) or (c).
Established plant pest	A plant pest that is perpetuated, for the foreseeable future, within any area and where it is not feasible (whether in terms of technical feasibility or a benefit/cost analysis) to eradicate.
Exotic plant pest	A plant pest that does not normally occur in Australia.
Exotic weed species	A plant that does not naturally occur in Australia which has become naturalised or a plant not yet known to be in Australia which has been identified as a threat to the economy, the environment, plant industries and social amenity.
High Priority Pest	A plant pest that has been identified as a priority threat, based on the likelihood and impact ratings, by a particular plant industry and is listed in a biosecurity plan.
Incursion	An isolated population of a pest recently detected in an area, not known to be established, but expected to survive for the immediate future.
Jurisdiction	A state or territory or the Commonwealth.
Naturalised	Introduced and reproducing itself without human assistance.
Pest status	Presence or absence, at the present time, of a pest in an area, including where appropriate its distribution, as officially determined using expert judgement on the basis of current and historical pest records and other information.

Plant biosecurity	A set of measures which protect the economy, environment and community from the negative impacts of plant pests and weeds.
Plant biosecurity system	The combination of all measures, programs and services delivered by government, plant industries, the community and other stakeholders that enables the protection of plants, plant products or bees from significant exotic, endemic and established plant pests and weeds.
Plant industries	Covers agriculture, horticulture, forestry, honey bees and amenity plants and plant products.
Plant pest	Any species, strain or biotype of invertebrate or pathogen injurious to plants, plant products or bees.
Post-border	In relation to the biosecurity continuum: region's inside Australia's border.
Pre-border	In relation to the biosecurity continuum: region's outside Australia's border.
Preparedness	Activities undertaken in advance of a plant pest incident to decrease the occurrence, impact, extent and severity of the incident and to ensure more effective response, continuity and recovery activities.
Regional	A geographic region within Australia (which may include a state, territory or agricultural zone).
Shared responsibility	Everyone takes responsibility for biosecurity matters, whether under their direct control or not. Everyone has an obligation to take action to protect Australia from plant pests and weeds.
State and territory governments	The state and territory governments of Australia.
Surveillance	Processes which collect and record data on pest presence or absence through survey, monitoring or other procedures.
Weed	A plant that requires some form of action to reduce its negative effects on the economy, the environment, plant industries and social amenity.

Appendix 1.

Stakeholder consultation

Table 1. Plant Biosecurity Preparedness Strategy Working Group

Name	Organisation
Rod Turner	Plant Health Australia
Greg Chandler	Hort Innovation
Rose Daniel	Apple and Pear Australia
Craig Elliott	Wine Australia
Zarmeen Hassan	AUSVEG
John McDonald	Greenlife Industry Australia
Trevor Ranford	Australian Walnut Industry Association Chestnuts Australia Hazelnut Growers of Australia Pistachio Growers' Association Summerfruit Australia
Andrew Cox	Invasive Species Council
Susie Collins	Australian Government
Cheryl Grgurinovic	Australian Government
Elyse Herrald-Woods	Australian Government
Chris Anderson	New South Wales Government
Lucy Tran-Nguyen	Northern Territory Government
Rebecca Sapuppo	Queensland Government
Peter Willmott	South Australia Government
John Virtue	South Australia Government
Lana Russell	Victoria Government
Vincent Lanoiselet	Western Australia Government
David Cousins	Western Australia Government
Trevor Dunmall	Plant Health Australia

Table 2. Stakeholders consulted in the development of the strategy

Organisation	Organisation
Adelaide Markets	Botanic Gardens Biosecurity Network
AgForce Queensland	Bowen Gumlu Growers
AgNova Technologies	Brisbane Markets
AgriFutures Australia	Bunnings
Almond Board of Australia	Canegrowers
Animal Health Australia	Canned Fruit Industry Council of Australia
ANJ Container Services	Centre for Invasive Species Solutions
Apple and Pear Australia	Centre of Excellence for Biosecurity Risk Analysis
Association of Biosafety Australia and New Zealand	Cesar Australia
Australian Banana Growers' Council	Cherry Growers of Australia
Australian Blueberry Growers' Association	Chestnuts Australia
Australian Centre for International Agricultural Research	Citrus Australia
Australian Container Freight Services	Coles
Australian Forest Products Association	Cotton Australia
Australian Fresh Produce Alliance	Cotton Research and Development Corporation
Australian Ginger Industry Association	Council of Australasian Weeds Societies
Australian Grape and Wine	Dreamtime Wholesale Nursery
Australian Honey Bee Industry Council	Dried Fruits Australia
Australian Horticulture Exporters Association	Far North Queensland Growers
Australian Local Government Association	Forest and Wood Products Australia
Australian Lychee Growers' Association	Fruit Growers Tasmania
Australian Macadamia Society	Fruit West Co-operative
Australian Mango Industry Association	Grain Producers Australia Limited
Australian Melon Association	Grains Research and Development Corporation
Australian Network for Plant Conservation	Greenlife Industry Australia
Australian Olive Association	Growcom
Australian Plants Society	Hazelnut Growers of Australia
Australian Processing Tomato Research Council	Horticulture Innovation Australia
Australian Seed Federation Limited	Invasive Species Council
Australian Sweet Potato Growers	Landcare
Australian Table Grape Association	Local Government Association of Queensland
Australian Tea Tree Industry Association	Melbourne Markets
Australian Truffle Growers Association	National Landcare Network
Australian Walnut Industry Association	Natural Resource Management Regions Australia
AUSVEG Limited	Northern Territory Farmers Association
Avocados Australia	Onions Australia
Beechworth Honey	Passionfruit Australia Incorporated
Blue Ribbon Group	Peri-urban Environmental Biosecurity Network
	Perth Markets
	Pistachio Growers' Association

Organisation
Plant Biosecurity Research Initiative
Plant Health Australia
Price and Speed Containers
Protected Cropping Australia
Raspberries and Blackberries Australia
Reid Fruits
Ricegrowers' Association of Australia
Southern Gulf NRM
Steritech
Strawberries Australia
Sugar Research Australia
Summerfruit Australia
Sydney Markets
University of the Sunshine Coast
University of Wollongong
Urban Plant Health Network
Victorian Farmers Federation
Vinehealth Australia
Western Australia Local Government Association
Wine Australia
Wine Tasmania
Woolworths

Organisation
Government agencies
Australian Government
Australian Pesticides and Veterinary Medicines Authority
CSIRO
Department of Agriculture, Water and the Environment
Australian Capital Territory Government
Environment Planning and Sustainable Development Directorate
New South Wales Government
Department of Planning, Industry and Environment
Department of Primary Industries
Department of Regional NSW
Northern Territory Government
Department of Environment and Natural Resources
Department of Industry, Tourism and Trade
Queensland Government
Department of Agriculture and Fisheries
South Australian Government
Department of Primary Industries and Regions
Tasmanian Government
Department of Primary Industries, Parks, Water and Environment
Victorian Government
Department of Jobs, Precincts and Regions
Western Australian Government
Department of Biodiversity, Conservation and Attractions
Department of Primary Industries and Regional Development



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Water and the Environment