Australian Government
Department of Agriculture

Plant health surveillance

A key part of the biosecurity system that protects Australia from plant pests and diseases

June 2019

Australia's geographic isolation, and more than a century of strong quarantine measures, have kept our nation free of many of the plant pests and diseases found elsewhere in the world.

This freedom protects the beauty of our unique environment, keeps our cities and towns healthy, and allows our agricultural industries to flourish and enjoy an enviable reputation at home and overseas as a supplier of 'clean and green' produce.

But increasing numbers of incoming passengers, cargo and mail, as well as factors like a faster spread of plant pests and diseases across the globe and climate change, is making us more vulnerable to the threat of new or 'exotic' plant pests and diseases.

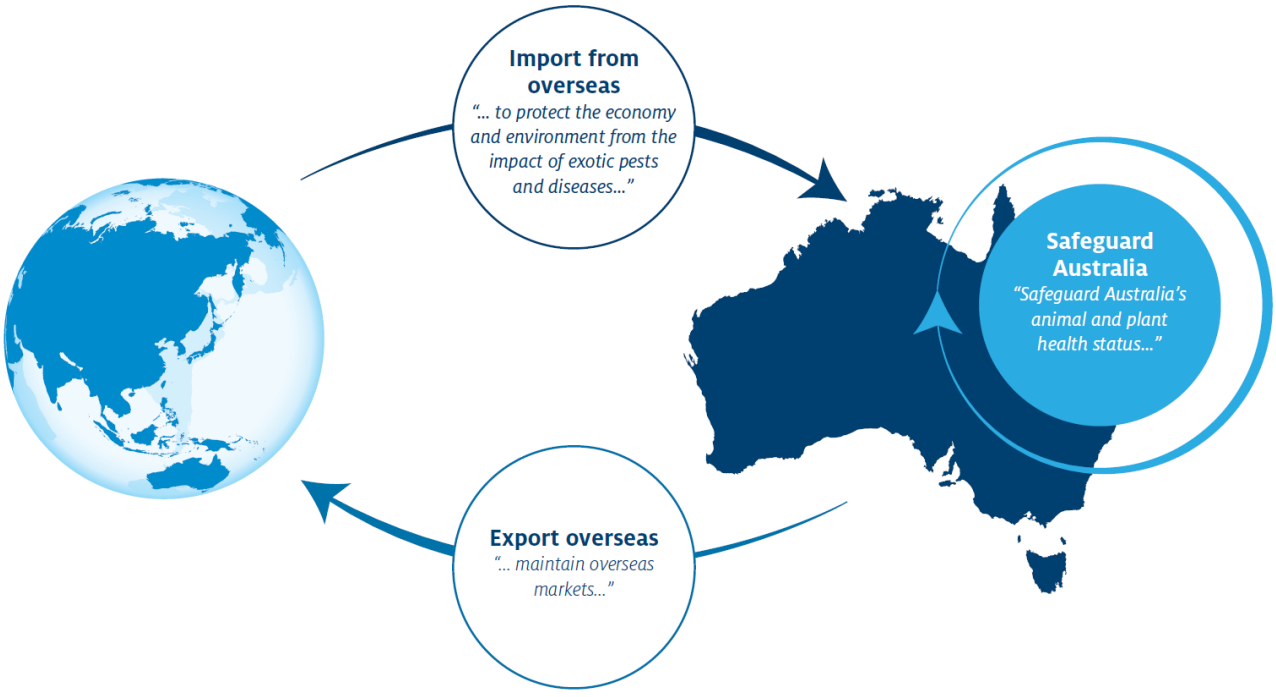
At the same time, our international trading partners are asking for stronger scientific evidence of Australia's freedom from pests and diseases. This means that Australia needs to collect data that demonstrates the absence of pests of concern.

As a result, plant health surveillance or biosecurity surveillance—checking for pests and signs of disease in plants, recording and reporting the findings—is becoming more important. While some surveillance activities are carried out by governments and industry groups, all Australians have a role to play in keeping watch and reporting signs of anything unusual.

Biosecurity: the activities that protect Australia from pests and diseases

Australia's biosecurity system is multi-layered, with activities in place internationally (pre-border or offshore), along our coastline and at our border (airports, seaports, mail centres), and within Australia (also called onshore or post-border). These three elements—pre-border, border and post-border, come together in what is known as the biosecurity continuum.

It works through the efforts of all Australians, with particular responsibilities set out for Australian governments, industry bodies, exporters, importers, farmers, miners, tourists, researchers, port authorities, transport companies, and the broader community.



Australia's biosecurity system protects us all from the effects of new plant pests and diseases and maintains our reputation as a reliable overseas trading partner

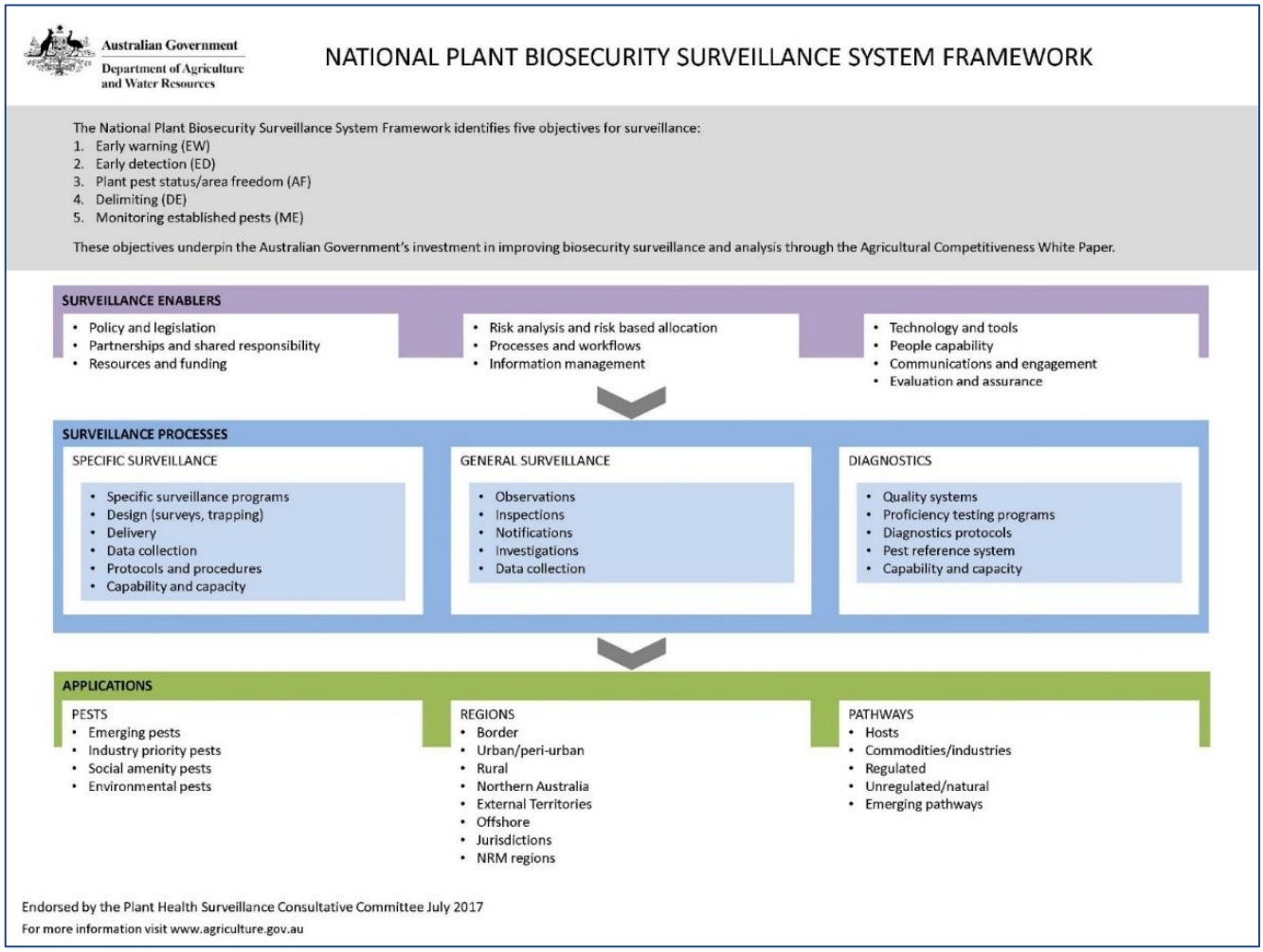
While efforts to keep pests and diseases out at airports, wharves and mail centres are the most visible part of Australia's biosecurity system, there are many other activities that contribute to protecting us from damaging plant pests, including plant biosecurity surveillance.

Trying to eradicate a new pest from Australia or having to manage a new pest that is here to stay is very costly for industry and governments, so finding a new pest early through surveillance is a good investment. When it comes to biosecurity, prevention is always better than cure.

An extensive system involving government, industry and community

In Australia plant health surveillance, also called plant biosecurity surveillance, is a shared responsibility.

The Australian Government Department of Agriculture works in partnership with state and territory governments, peak industry bodies, growers, Plant Health Australia (PHA), researchers, environmental groups, and others to carry out biosecurity surveillance and associated activities. All work is guided by the National Plant Biosecurity Surveillance System Framework.



Australia's national plant biosecurity surveillance system framework was launched in 2017

National Plant Biosecurity Surveillance System Framework

The National Plant Biosecurity Surveillance System Framework identifies three components of the system that together protect Australia and its place in international trade:

Surveillance enablers

These underpin effective functioning of plant health surveillance. They include the IT systems, supporting policies and legislation, reporting mechanisms, sufficient trained personnel, resources and funding.

Surveillance processes

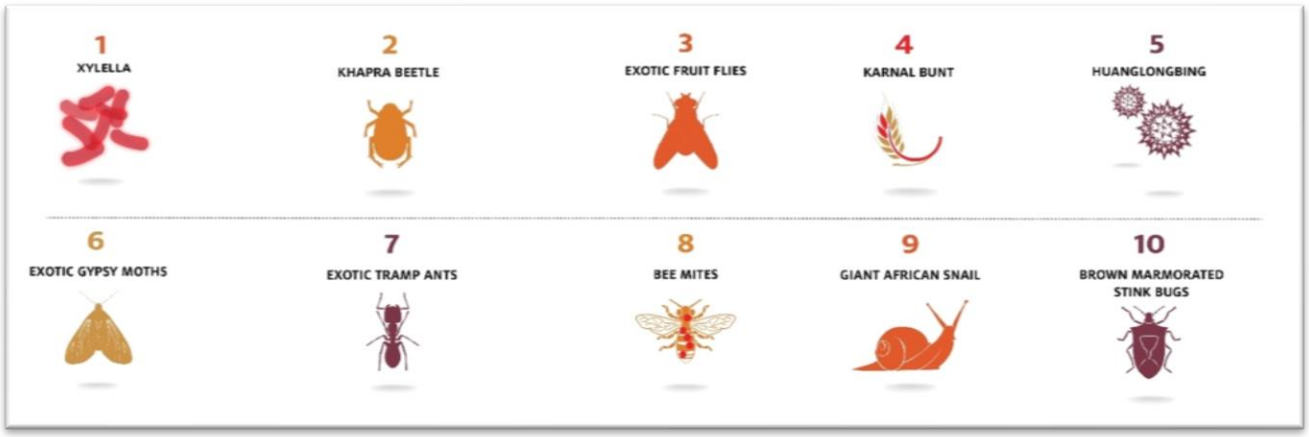
These are the surveillance activities themselves, along with necessary supporting systems to allow data gathering and pest identification. Diagnostics, the ability to quickly and accurately identify a plant pest, is a critical part of the system.

Applications

These are where the checks are made. Surveillance sites include urban as well as rural Australia, northern Australia and overseas. Surveys target types of pests, such as Emergency Plant Pests and environmental pests; and they target critical pathways where pests could arrive or spread.

Activities under Australia's national plant biosecurity surveillance system framework work to together to achieve five key objectives:

- **Early warning**: Shows where new biosecurity measures are required to prevent the arrival or spread of a plant pest, with particular priorities for surveillance in 'high risk pathways'.
- **Early detection**: Finding a new pest incursion or outbreak early, before the pest has a chance to spread and become established.
- **Plant pest status/area freedom:** Collecting surveillance data on the presence or absence of plant pests demonstrates to other countries that they can safely buy our produce without also importing pests that they don't have. This is known as 'evidence of absence', and is critical to supporting market access both within Australia and overseas.
- **Delimiting** (or delimitation surveillance): Allows us to work out where pests are now, and where they haven't spread to yet. This is very important during an eradication response.
- **Monitoring established pests**: This includes surveillance for pests already here, such as Queensland and Mediterranean fruit flies, and the grapevine pest phylloxera, which is only found in parts of the eastern states.



Australia's Top 40 exotic and unwanted plant pests are a key target for biosecurity surveillance.
Find out more about them at [agriculture.gov.au/pests-diseases-weeds/plant.](agriculture.gov.au/pests-diseases-weeds/plant)

Plant health surveillance: pre-border, at the border, and post-border

Surveillance activities are a crucial part of all three layers of Australia's biosecurity system.

Pre-border surveillance

The Australian Government works with governments in Timor-Leste, Papua New Guinea, and the Solomon Islands to run a number of surveillance programs for plant pests.

These pre-border or offshore surveillance activities:

- provide early warning of exotic pests and diseases that could arrive on our shores
- help to better manage plant biosecurity risks offshore
- help neighbouring countries build their own biosecurity capability, boosting regional biosecurity.

Australia also plays an active role in developing and implementing international agreements that aim to prevent the global spread of plant pests (known as phytosanitary agreements), and works with other countries to help build their capacity to undertake biosecurity activities, including surveillance and diagnostics.

Border surveillance

At airports, sea ports and international mail centres, incoming cargo, mail and passengers are checked as well as the areas surrounding airports and cargo wharves.

In Australia's north, which is close to other countries, the Northern Australia Quarantine Strategy (NAQS), run by the Australian Government Department of Agriculture, conducts surveillance for exotic pests and weeds that could spread to Australia.

NAQS makes checks for pests and diseases that could be spread by human activities on regulated pathways such as shipping, or by natural or unregulated pathways, where pests can spread by the wind or tides. With the help of local communities and Indigenous Rangers, NAQS keeps a 'Top Watch' along the 5,000km stretch of coastline from Broome to Cairns, as well as in the islands of the Torres Strait.

Post-border surveillance

A significant amount of surveillance is carried out onshore—within Australia. Surveys are carried out around the country with two key aims in mind: to raise the alarm of any new incursion or outbreak early (before it spreads too far to be eradicated), and to gather the 'evidence of absence' data needed to show our overseas trading partners that Australia is free from high risk pests of particular concern.

The Australian Government Department of Agriculture manages the National Plant Health Surveillance Program in cooperation with state and territory governments, which targets pests of particular concern across Australia.

Surveillance is also conducted by state and territory governments and agricultural industries.

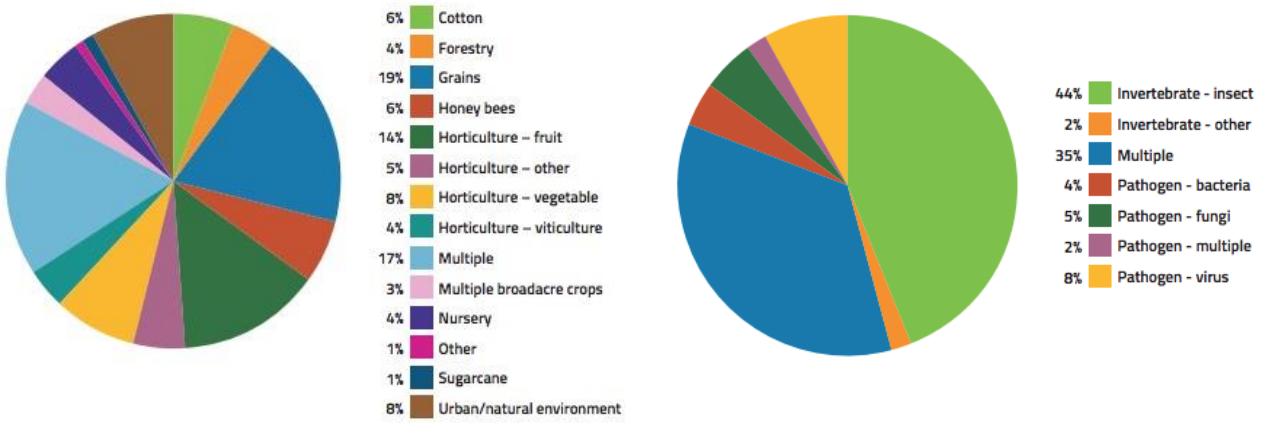
Targeted surveillance by industry and government

Around two-thirds of our national agricultural production is exported to overseas markets, providing large economic benefits to Australia and supporting rural and regional communities. The amount of produce that is exported varies from industry to industry, but for some, such as grains and citrus, international market access is crucial.

Governments around Australia, increasingly supported by individual growers and industry groups, have established ongoing formal surveillance programs that make systematic checks for a targeted pest or group of pests, throughout the growing season. Over 150 targeted surveillance programs are in operation each year, across a range of industries.

Each time an official surveillance check for a particular pest is made in Australia a record is made, even when nothing is found. Together these targeted surveillance records add up to a picture of where and when pests were present, and where they were not found. Growers can help to record an absence of pests too, by making records of their own crop monitoring activities, always noting the zeros. This is formally known as general surveillance data, which can supplement target surveillance.

Surveillance provides crucial information for market access, with zeros for not finding a pest being amalgamated to provide 'evidence of absence'. Find out more about targeted surveillance programs on the Plant Health Australia website.



Across Australia, over 150 surveillance programs that target particular crops or particular pests are in operation. Image courtesy of Plant Health Australia.

New strategies to protect Australian crops from plant pests

The increasing threat of new plant pests has prompted greater cooperation between governments and industry to improve plant health surveillance within Australia. Work is underway to develop a series of surveillance strategies for particular crops, which will ensure that checks for pests are systematic and coordinated, and that trading partners can be supplied with robust evidence of absence data.

The National Citrus Biosecurity Surveillance Strategy 2018–28 and the National Forest Biosecurity Surveillance Strategy 2018–23 have been developed by government and industry experts, coordinated by Plant Health Australia (PHA), to ensure that activities are organised and targeting the pests of greatest concern. The strategies are now being implemented through the establishment of dedicated citrus and forest surveillance programs, with a National Citrus Surveillance Coordinator and National Forest Biosecurity Coordinator working with growers and governments.

Using funding from the Australian Government, PHA is also working with industry and governments to develop surveillance strategies for the nation's potato industry, as well as tropical and temperate fruit industries. An overarching strategy to better coordinate surveillance activities in the nation's grain industry is also under development, with all these new industry strategies set for release in 2020.

These strategies fit into Australia's broader national plant biosecurity framework, complementing the renewal of existing ten year plans. A new **National Plant Biosecurity Strategy 2020–2030**, as well as a **National Plant Biosecurity Surveillance Strategy 2020–2030,** and **National Plant Biosecurity Diagnostic Strategy 2020–2030**, will be delivered shortly by PHA.

A completely new strategy is also under development, the **National Plant Biosecurity Preparedness Strategy 2020–2030,** set to provide a stronger emphasis on prevention of plant pests for Australia's biosecurity system for the next ten years. Find out more on the PHA website.

Plant health surveillance and the Australian community

While targeted surveillance programs provide a great deal of protection from new plant pests, particularly those needed to safeguard trade, all Australians are encouraged to keep an eye out for anything unusual, and report unfamiliar pests or plant symptoms. This is known as general surveillance.

What all of us can do

Report a plant pest or disease concern in your backyard or on the farm

Seen something unusual in your backyard or on your farm? Report it, even if you're not sure.
Pests and diseases can spread quickly over large distances. It's essential that you report what you find as soon as possible. This gives us the best chance of containing it before it spreads.

Ring the Exotic Plant Pest Hotline: 1800 084 881 which will be answered by your local department of agriculture.

Most of the time the pest won't be anything serious, but reports are encouraged. Experts can quickly establish if the pest or sick plant you see is anything out of the ordinary, and it's better to have a false alarm than miss out on picking up a new invader.

Many significant detections in Australia have come from someone noticing something unusual and alerting authorities.

Seen something suspicious in goods, containers or parcels?

Keep an eye on all cargo, containers or parcels arriving through airports, seaports and in international mail. If you see something unusual or unexpected, secure it and report it immediately.

You can call the **See. Secure. Report. Hotline** on **1800 798 636** to speak to specially trained officers who investigate all reports related to imported items, or you can complete the online reporting form at http://www.agriculture.gov.au/pests-diseases-weeds/report.

You **will not be prosecuted** if you or someone you know has accidentally imported risk material.

Encourage others to keep an eye out as well—spread the word about watching for exotic pests.

Together we can keep Australia free from damaging plant pests and diseases

Where to find out more

Find out how and why Biosecurity Matters in everyday activities like shopping online and gardening at http://www.agriculture.gov.au/biosecurity/biosecurity-matters

Be inspired by the winners of the Australian Biosecurity Awards
http://www.agriculture.gov.au/biosecurity/australia/public-awareness/aba

Download the free Farm Biosecurity Planner from farmbiosecurity.com.au/planner or get the smartphone app from farmbiosecurity.com.au/farmbiosecurity-app.

For travelling or moving goods within Australia you can find out more about your biosecurity obligations on the Australian Interstate Quarantine website at https://www.interstatequarantine.org.au/

Plant biosecurity, the system that protects us and key pest threats: Plant Health Australia's National Plant Biosecurity Status Report is a useful resource which you can find at planthealthaustralia.com.au/npbsr

Take action against Australia's Top 40 Exotic and Unwanted Plant Pests: information and videos available on the Department of Agriculture website

Citrus growers can download their industry's national surveillance strategy from
planthealthaustralia.com.au/strategies/national-citrus-biosecurity-surveillance-strategy

Foresters can download their industry's national surveillance strategy from
planthealthaustralia.com.au/strategies/national-forest-biosecurity-surveillance-strategy.