



Australian Government
Department of Agriculture

Understanding Plant Health Surveillance

A vital part of the
biosecurity system
protecting Australia from
plant pests and diseases



Plant Health Surveillance and Diagnostics Programs

June 2019

What is Plant Health Surveillance?

Plant biosecurity surveillance
Crop monitoring and data analysis
Looking for signs of plant pests and diseases

A system of making checks for signs of plant pests or diseases, recording the results, and reporting anything unusual

This includes pests not in Australia (exotic) and pests already here (established)

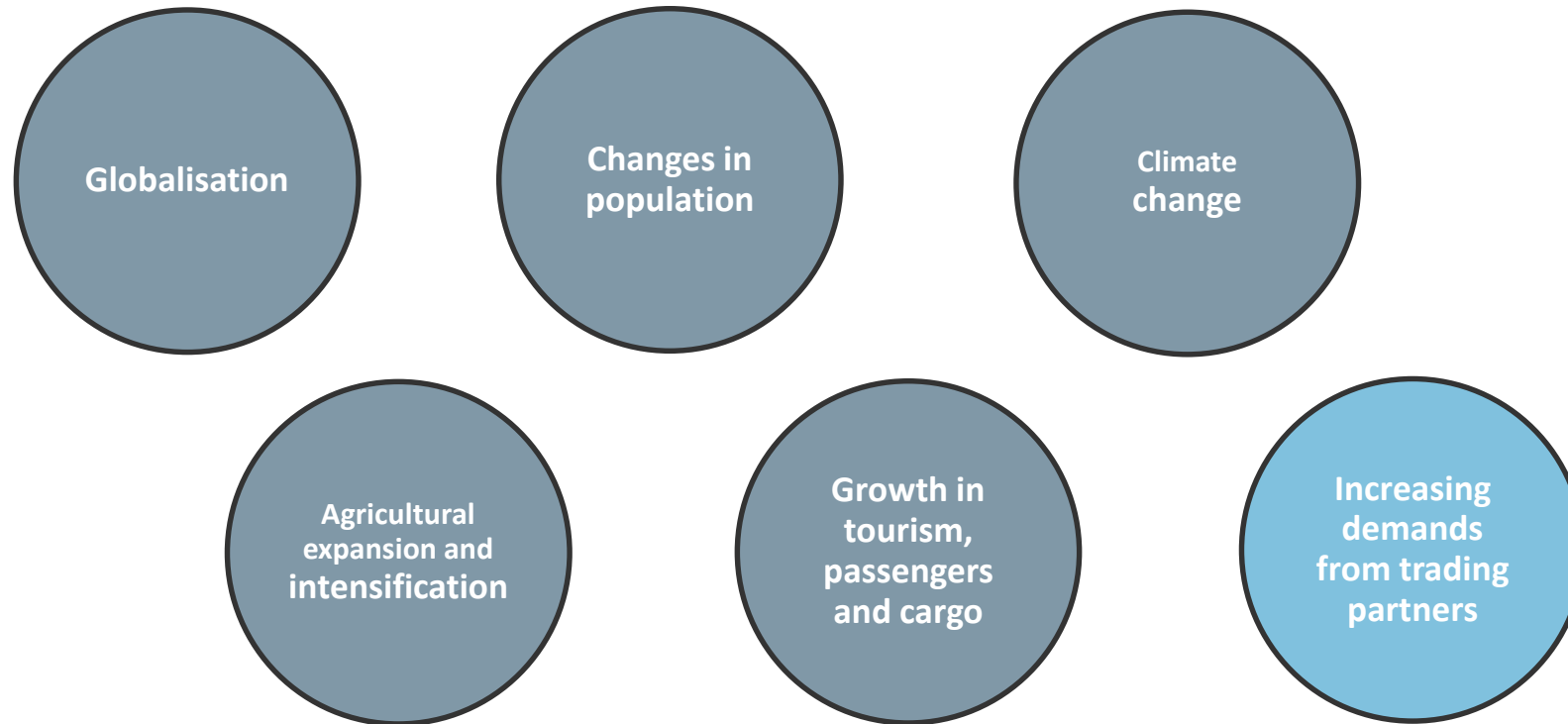
Helps to find, contain or eradicate plant pests and diseases

Provides data to show freedom from pests and diseases

This 'evidence of absence' is crucial for access to markets both in Australia and overseas

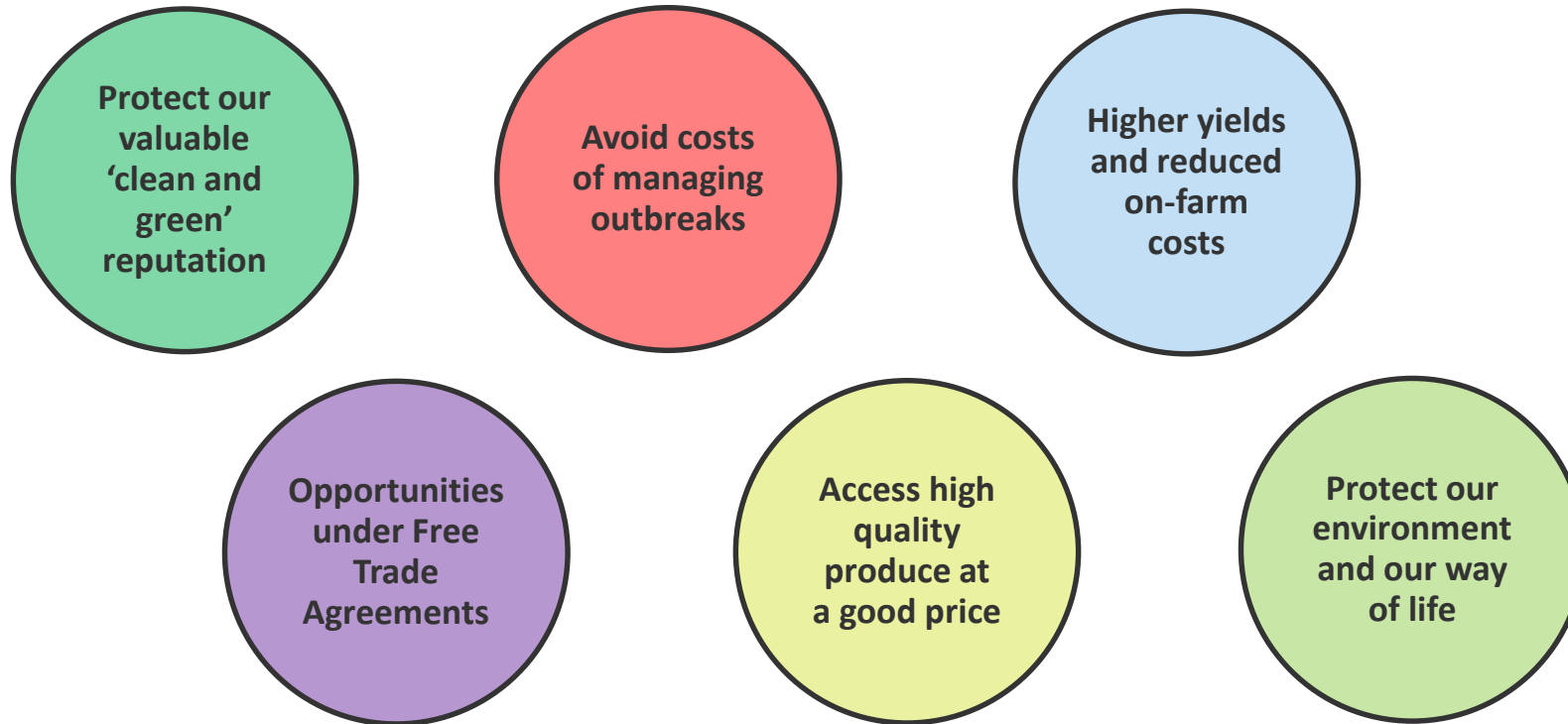
Why is surveillance important?

Growing biosecurity threats and challenges



What are the benefits?

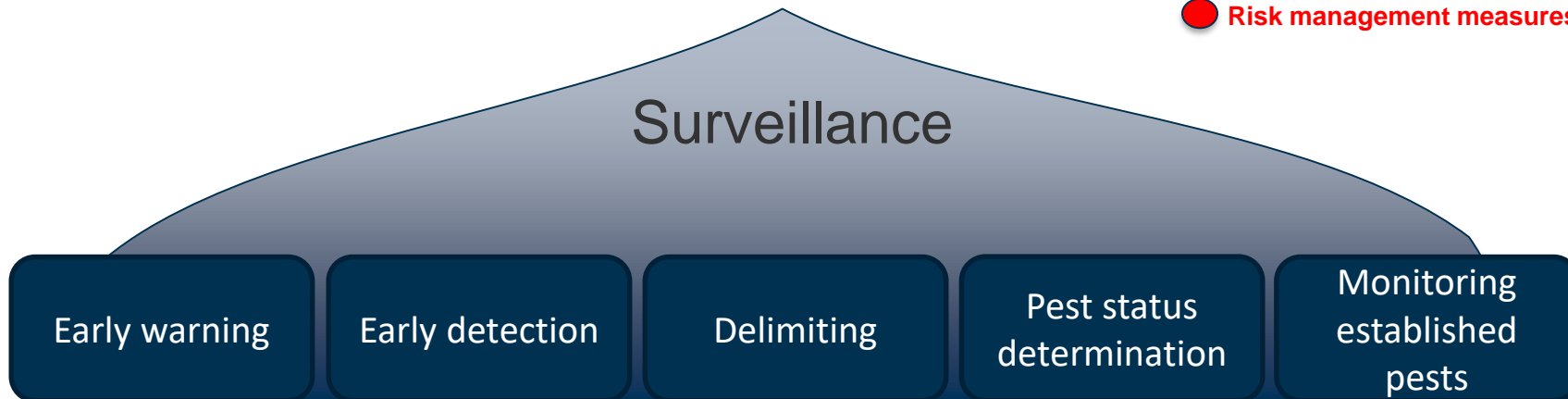
Protecting our economy, environment and communities



Surveillance is an integral part of biosecurity risk management



● Risk management measures



Early warning

- Prevent the arrival or spread of a plant pest through surveillance of 'high risk pathways' offshore, at the border and in Australia

Early detection

- Find a pest before it has a chance to spread and become established

Delimiting

- Checking for the physical presence of a pest during an emergency eradication response or in ongoing management

Pest status
determination

- Using surveillance data to show that an area is free of pests (other countries or other parts of Australia want to know that they can buy produce without the risk of bringing in unwanted plant pests and diseases)

Monitoring
established
pests

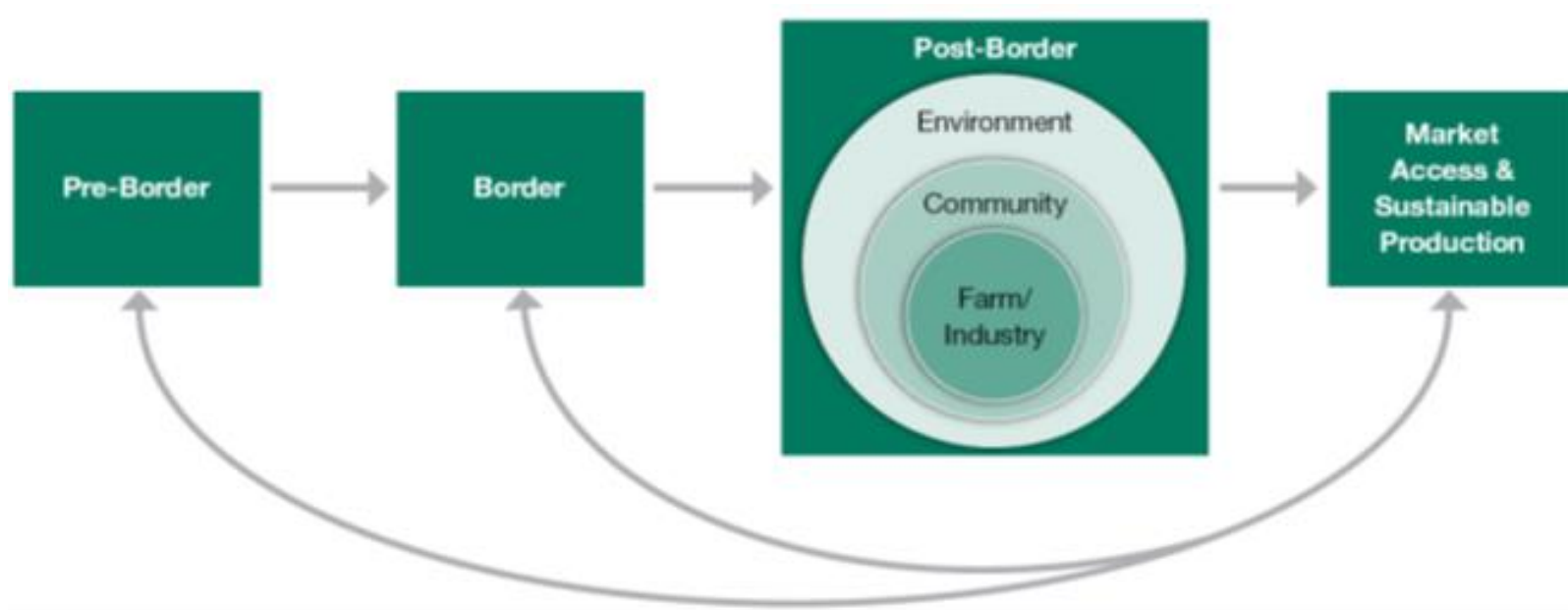
- Surveillance for pests already in Australia e.g. Queensland fruit fly (Qfly)

The plant biosecurity surveillance system

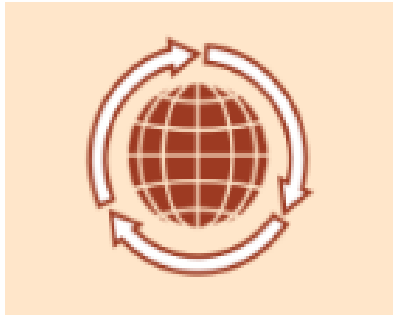
Surveillance is conducted across the biosecurity continuum: pre-border, border, post-border
Australian Government, state and territory governments, industry, and community all share roles and responsibilities

Surveillance supports biosecurity risk management across the continuum

- The plant biosecurity system is a continuum that integrates biosecurity activities at pre-border, border and post-border
- Surveillance is conducted at all three layers of the continuum



Working in our region and internationally



Pre-border

- Also called offshore or international surveillance
- Provides **early warning** of pests and diseases in our region and around the globe
- Undertake surveys and support better plant health through capacity building in Papua New Guinea, Timor-Leste and the Solomon Islands
- Work with other countries in our region and across the globe to build surveillance capacity and negotiate ‘phytosanitary agreements’
- These **international plant health agreements** allow trade to flow while protecting countries from the spread of plant pests and diseases
- Australian producers must meet requirements under these agreements to sell their products overseas and at home
- The Australian (Federal) government is responsible for pre-border surveillance

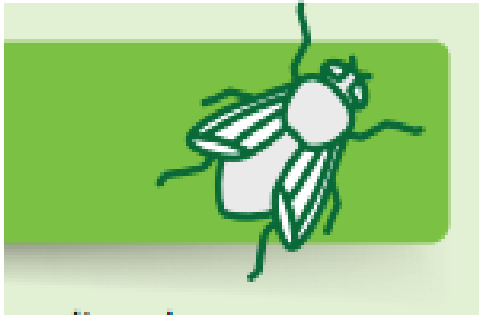
Protecting our coastline and *Border Security*



At the border

- Pests and weeds can reach Australia's north through winds and tides, or the movement of ships, people and goods
- The Northern Australia Quarantine Strategy (NAQS) checks for exotic pests and weeds along the coastline from Broome to Cairns, and in the islands of the Torres Strait
- At Australia's airports, sea ports and international mail centres checks are made of incoming cargo, mail and passengers
- Communities living near these international entry points are also asked to keep watch for 'hitchhiker' pests such as the brown marmorated stink bug
- This **early detection** surveillance aims to stop pests before they can enter and spread
- The Australian (Federal) Government works with state governments and communities in pre-border surveillance activities

Crop monitoring and data collection



Post border

- Also called on-shore surveillance
- Post border surveillance includes **monitoring for established pests** and **delimitation** in the event of a pest or disease outbreak
- The Australian Government manages the National Plant Health Surveillance Program with cooperation from state and territory governments
- Targets **early detection** of the nation's 'top 40 exotic and unwanted' National Priority Plant Pests and other threats
- The program also collects the 'evidence of absence' data needed for market access
- Roles and responsibilities for the Australian (Federal) Government, state and territory governments, industry groups, growers, and the general community

Ensuring surveillance delivers value

What
surveillance
will be done

Where will
surveillance
be done

Who needs to
do
surveillance

How will
surveillance
be done

When will
surveillance
be done

How much
surveillance
will be done



NATIONAL PLANT BIOSECURITY SURVEILLANCE SYSTEM FRAMEWORK

Plant biosecurity is a set of activities and measures that protect the economy, environment and community from the negative impacts of plant pests by reducing the likelihood of a pest entering the country or region and as such, support an overall system that increases confidence that the pest will be reported, accurately diagnosed and controlled rapidly.¹

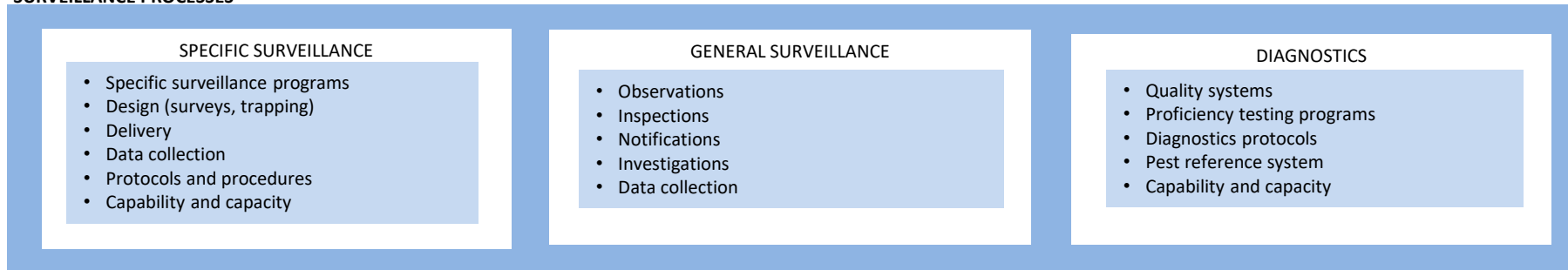
National plant biosecurity surveillance system objectives:

1. **Early warning** to detect plant pests at high-risk pathways
2. **Early detection** to reveal the presence of plant pests
3. **Pest status** to demonstrate absence/area freedom of plant pests to support market access
4. **Delimiting** to determine the physical extent of plant pests to inform emergency responses and management
5. **Monitoring** established pests for ongoing management arrangements

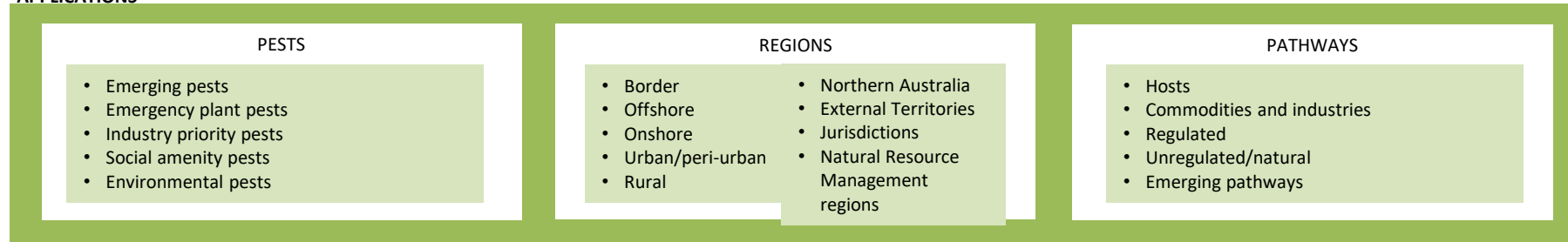
SURVEILLANCE ENABLERS

- Policy and legislation
- Partnerships and shared responsibility
- Resources and funding
- Processes and workflows
- Information management
- Technology and tools
- Risk analysis and risk based allocation
- People capability
- Communications and engagement
- Evaluation and assurance

SURVEILLANCE PROCESSES



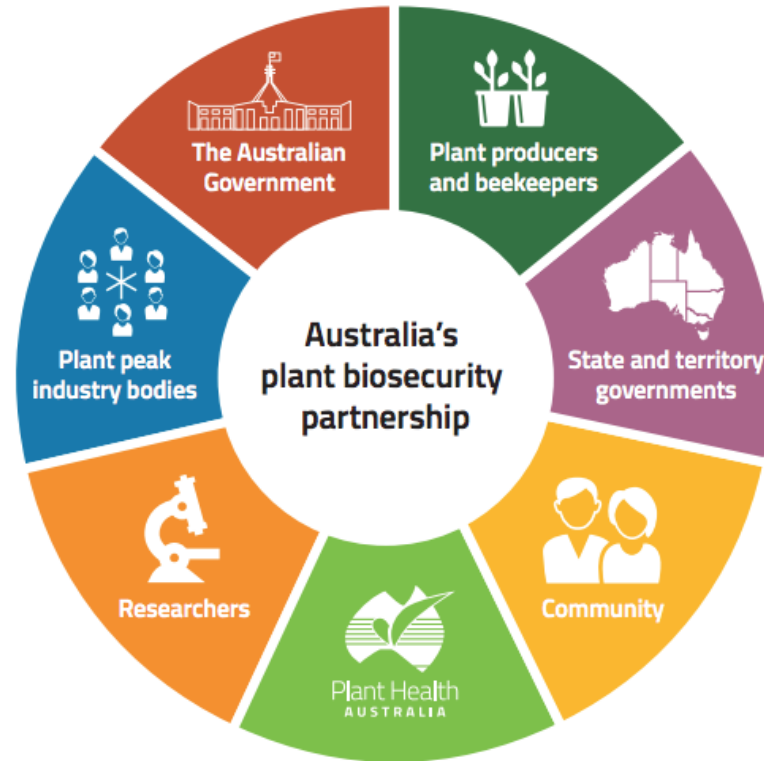
APPLICATIONS



¹Source: National Plant Biosecurity Strategy (PHA 2010) and National Plant Biosecurity Surveillance Strategy 2013-2020 (PHA 2012) (endorsed by government, associate and industry members)

A partnership united against plant pests

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



A key target for our surveillance system

TOP 40 EXOTIC AND UNWANTED PLANT PESTS

1

XYLELLA



2

KHAPRA BEETLE



3

EXOTIC FRUIT FLIES



4

KARNAL BUNT



5

HUANGLONGBING



6

EXOTIC GYPSY MOTHS



7

EXOTIC TRAMP ANTS



8

BEE MITES



9

GIANT AFRICAN SNAIL

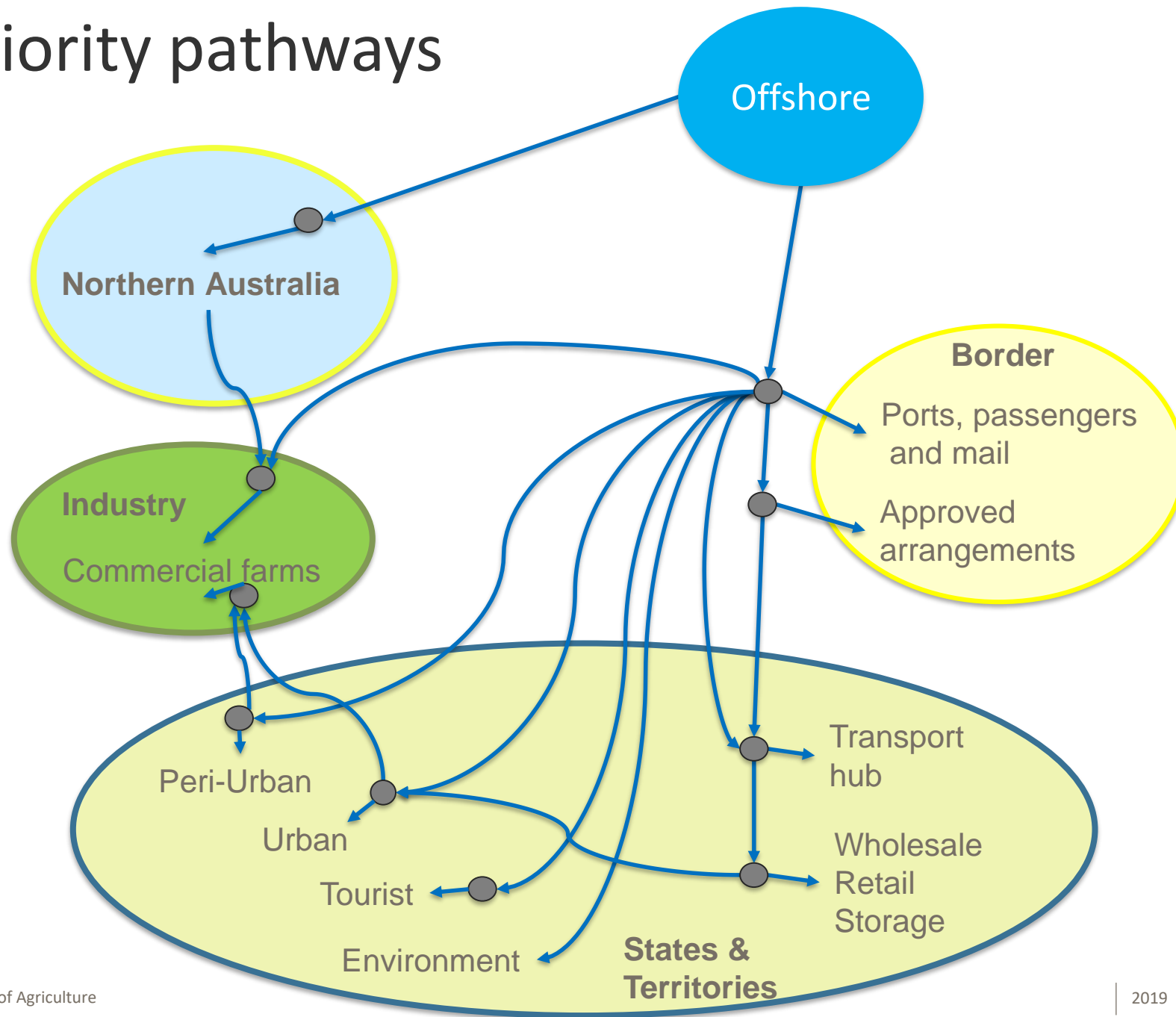


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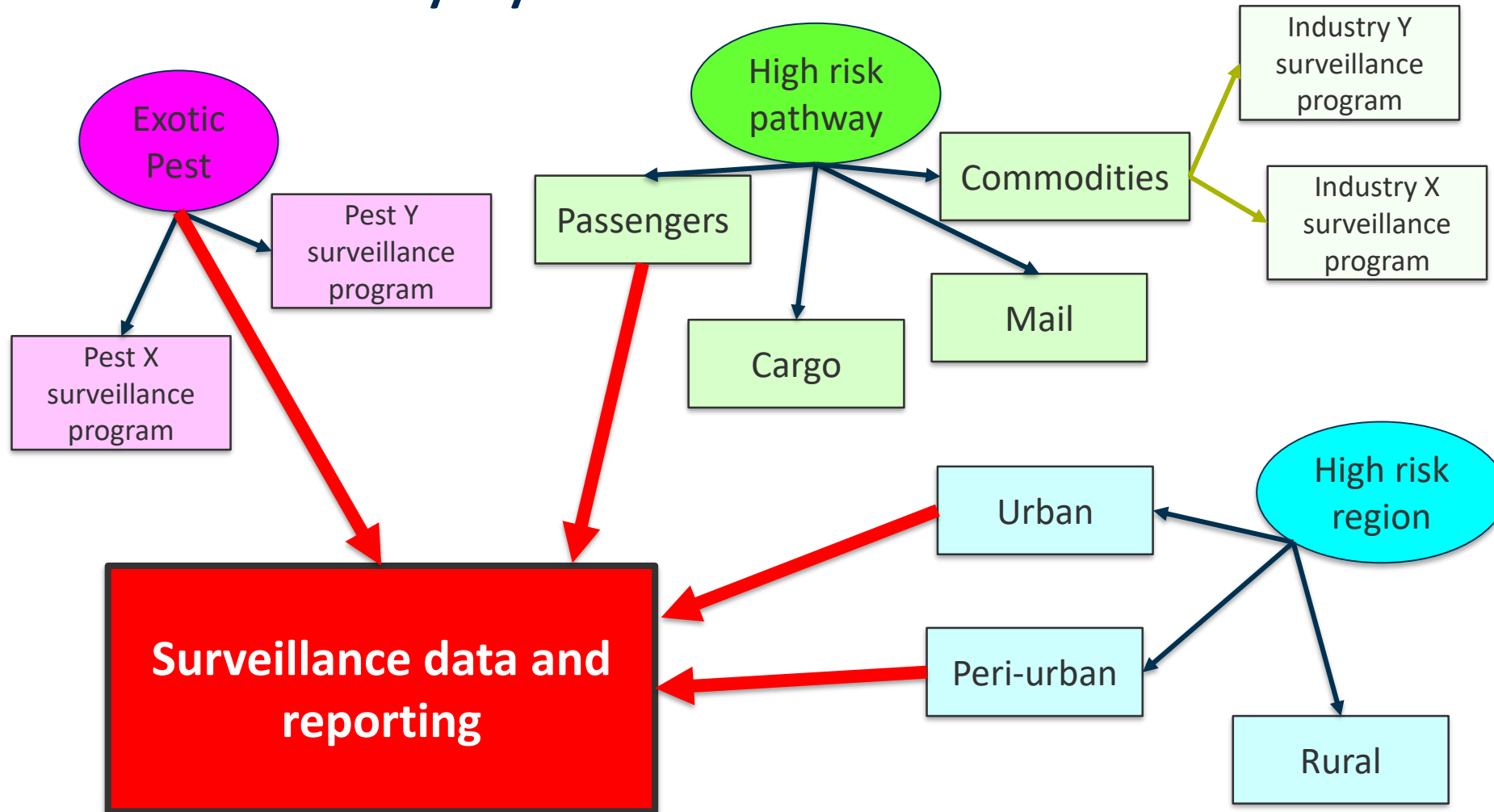
BROWN MARMORATED STINK BUGS



Priority pathways



Integration into the national plant biosecurity system



Further information

We can all play a role in stopping the spread of plant pests and diseases

Australia's Top 40 Exotic and Unwanted

<http://www.agriculture.gov.au/pests-diseases-weeds/plant>

Australian Biosecurity Awards

<http://www.agriculture.gov.au/biosecurity/australia/public-awareness/aba>

**IF YOU SEE ANYTHING UNUSUAL,
CALL THE EXOTIC PLANT PEST HOTLINE**

☎ 1800 084 881

Biosecurity Matters

<http://www.agriculture.gov.au/biosecurity/biosecurity-matters>

Farm Biosecurity

www.farmbiosecurity.com.au

National Plant Biosecurity Status Report

planthealthaustralia.com.au/npbsr

Travelling or moving goods within Australia

<https://www.interstatequarantine.org.au/>