

# Pest and disease preparedness: How to protect your farm



# AUSVEG

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# Farm Biosecurity

The best defence against harmful pests, viruses, diseases and weeds for your farm is to implement good farm biosecurity.

## What is farm biosecurity?

- 1 Prevention and management of pests and diseases that are not yet present in a certain production area but are likely to arrive, either seasonally or through natural spread.
- 2 Practices that can be incorporated into everyday farm business and include practices like farm biosecurity gate signage, using a visitor register and regular monitoring and surveillance of crops and surrounding areas.

## How can I benefit?

- 1 Plant biosecurity plays an important role in maintaining Australia's reputation of producing high quality products. Critically, these practices can protect your farm from pest and disease threats that can be costly to manage.
- 2 Good biosecurity practices can assist when faced with government imposed farm quarantine measures and be used as evidence when applying for 'pest free place of production' (PFPP) accreditations.

**For example**, pumpkin, squash, watermelon, melon and cucumber growers in QLD, NSW and VIC must now be an accredited 'Cucumber Green Mottle Mosaic Virus (CGMMV) PFPP' to trade with New Zealand. As part of this accreditation, sound on-farm biosecurity measures must be demonstrated.



Clean shoes upon entry and exit to a property. Credit: AUSVEG.

## What can I do now?

- 1 **Quick and simple** biosecurity practices
- 2 Biosecurity practices that **require more inputs**

By targeting the simple measures first you have already prepared for any potential pest and disease spread and significantly reduced the risks.

## Six main pathways

There are six main pathways by which harmful plant pests, viruses, diseases and weeds spread onto farms. Use this resource to identify these pathways on your own property and see how you can start managing the risks of each pathway.

The six pathways include:



Vehicles and equipment



Staff and farm visitors



Packaging, bins and pallets



Waste and weeds



Farm inputs



Wind



A farm biosecurity kit. Credit: AUSVEG.



# Vehicles and equipment

**Vehicles and equipment often collect soil and plant material in grilles, tyre treads and on wheel rims.**

Bacteria, fungi, viruses, nematodes, insects and even insect eggs, can remain alive without host plants for long periods of time in soil and can be spread by vehicles and equipment that have soil on them, especially when they are:

- 1 Uncleaned, or
- 2 Driving across your production areas.

Contaminated soil and other material can be spread into your paddocks.

Maintain the hygiene of vehicles and equipment, and ensure that all vehicles coming onto your property are clean beforehand to reduce the spread of contamination into your production areas.

Alternatively, all visitor and staff vehicles remain outside of growing sites and only designated farm vehicles are used in production areas.



Established vehicle paths near production areas reduces the likelihood of spreading pests and diseases. Credit: Shutterstock.



A vehicle and equipment wash down bay provides protection against soil-borne pathogens and hitchhiker pests. Credit: Queensland Department of Agriculture and Fisheries (QLD DAF).

## CASE STUDY: Fusarium wilt (*Fusarium oxysporum*) - Present in Australia

- 1 Fungal disease.
- 2 Impacts many vegetable crops, including brassicas, beans, capsicums, cucurbits, peas.
- 3 Several strains currently present in Australia (some strains are not yet known to occur in Australia).

The fungus is soil-borne and infects plants through their root systems. As the fungus travels up the plant stem, it invades plant cells producing toxins and causes leaf yellowing and wilting.

### It can be spread by:

- 1 Vehicles and equipment that have come into contact with contaminated soil and are not cleaned and disinfected before travelling to new areas.

This pathway is likely to spread other diseases including *Ralstonia* species (bacterial wilt) and weeds (e.g. wild radish). Managing the risks of vehicles and equipment means you reduce the risks of introducing new pests and diseases onto your property.



Fusarium wilt (a) visible on a stem, (b) affecting a watermelon crop, and (c) a cabbage crop. Credit: (a) Charles Averre, North Carolina State University, Bugwood.org, (b) Howard F. Schwartz, Colorado State University, Bugwood.org, (c) M.E. Bartolo, Bugwood.org.



# Management options

## ✓ Have one main farm entry point

One (or two) main controlled farm entrance point ensures farm traffic is directed via gate signs and visitors are informed about property access, designated parking areas and who to contact.

Combine these practices with a visitor register sheet at the farm office to keep track of who has entered your property and when, in case of any pest or disease outbreaks.



Providing a designated parking area away from production areas will help you manage who is coming onto your property. Credit: PHA.

## ✓ Clean vehicles and equipment, or leave them outside the farm gate

By cleaning vehicles and equipment before they enter production areas, the risks of transmitting pests or diseases are reduced.

Use a machinery register to keep track of where vehicles and equipment have been used, especially if they are being used across multiple properties.

Use a concrete (or similar) designated parking area for vehicle and equipment wash downs and ensure that run-off is directed away from production areas. Regularly monitor the area around the wash down facility for pest and disease symptoms.

## ✓ Use designated parking areas and established vehicle paths

Control vehicle movement around a property to reduce the chances of spreading pests and diseases.

Use a designated parking area with a registration system for staff and visitors. Limit the movement of these vehicles to ensure they are not spreading pests and diseases.

Pests and diseases are more likely to be spread around farm when vehicles travel off established roads/tracks. Ensure on-site vehicles and any staff or visitors are aware of your farm's biosecurity requirements to travel on designated pathways between growing areas.

### CASE STUDY: Pale potato cyst nematode (*Globodera pallida*) - Not present in Australia

- 1 Exotic pest.
- 2 Affects potatoes, tomatoes and eggplant by damaging roots and tubers.
- 3 Soil-borne.

#### It can be spread by:

- 1 Vehicles and equipment (and any surface) that has come into contact with PCN-infested soil.
- 2 Unwashed root crops, seed potatoes, potted nursery stock and packaging, boots, livestock and waste.

PCN can survive as cysts in soil for up to 20 years in the absence of any host species.

By managing vehicles and equipment, the risks of transporting unwanted harmful pests and diseases onto and around your property is significantly reduced.



Plants affected by PCN. Credit: Florida Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Bugwood.org.



Female PCN on roots. Credit: Bonsak Hammeraas, NIBIO - The Norwegian Institute of Bioeconomy Research, Bugwood.org.



# Staff and farm visitors

## If it can move, it can carry pests and diseases.

While farm visitors like contractors, agronomists, and other industry staff are critical to farming operations, they enter properties at a risk to a farm's biosecurity. Harmful pests and diseases can hitchhike on:

- 1 clothing
- 2 shoes
- 3 hands
- 4 vehicles

For this reason, staff and farm visitors are a risk that should be managed accordingly.

Date	Name	Company	Reason for visit	Time signed in	Time signed out	Induction (Y/N)

An example visitor register. Credit: AUSVEG.

Staff and visitors that are not trained, or are unaware of your farm's biosecurity practices, can spread pests, diseases and weeds and degrade biosecurity protocols that are in place.

It can be difficult to trace the source of a pest outbreak without knowledge of who has visited your farm.

# WARNING


## FARM BIOSECURITY IN PLACE

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**Please contact the office before entering.**

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**Do not enter property without prior approval.  
Keep to roadways and laneways.  
Do not enter growing areas.**





Free farm biosecurity signs are available from AUSVEG (limits apply).

## CASE STUDY: Pigweed (*Portulaca oleracea*) - Present in Australia

- 1 Restricts crop yield and quality.
- 2 Increases the costs of production and impacts management decisions.
- 3 Is considered to be one of the most important weed species in vegetable production.

### It can be spread by:

- 1 Seeds fall directly to the ground from the parent plant. Pigweed relies entirely on external dispersal methods for spread.
- 2 In soil on shoes and clothes of staff and visitors to farm.

Pigweed is known for rapid population increases once it becomes established in vegetable fields. It is important to manage visitors and equipment to control the spread of this weed and other soil-borne pests and diseases than can similarly be spread through contaminated shoes and clothing.

Other weeds like nutgrass (*Cyperus rotundus*), can similarly be spread by clinging onto staff and visitor clothing and shoes.



Common purslane or pigweed (*Portulaca oleracea*) in an onion crop. Credit: Howard F. Schwartz, Colorado State University, Bugwood.org.

# Management options

## ✓ Install biosecurity gate signs

Biosecurity signs indicate to visitors and staff that farm biosecurity practices are in place. Gate signs can also be used to direct traffic to designated parking areas and inform visitors about property access points.



Pests, diseases and weeds can be present on shoes, clothing and hands. Credit: PHA.

## ✓ Ensure shoes and clothes are clean

Staff and visitors should practice general hygiene when coming onto farm. This means ensuring shoes and clothing are clean as pathogens (fungi, bacteria) and viruses are spread through:

- 1 Physical contact, and
- 2 Contaminated clothing.

Provide accessible cleaning equipment like boot brushes and a footbath with chemical disinfectant to reduce the risks associated with staff and visitors.

## ✓ Use a visitor sign in register

Every visitor should sign-in upon entry on farm. This allows you to keep track of farm visitors and communicate your biosecurity requirements.

If possible, ask visitors to report previous movements in other growing regions upon entering the property. This also helps to conform to health and safety laws by having an accurate record of who is on property and at what time in the event of an incident.



Use a footbath with disinfectant to manage the risks of soil-borne pests, diseases and weeds. Credit: AUSVEG

## ✓ Train staff in biosecurity

Induct all staff in on-farm biosecurity practices so they are aware of how pests and diseases can be spread and how they can personally reduce these risks.

### CASE STUDY: Late blight (*Phytophthora infestans* - A2 mating type) - Not present in Australia

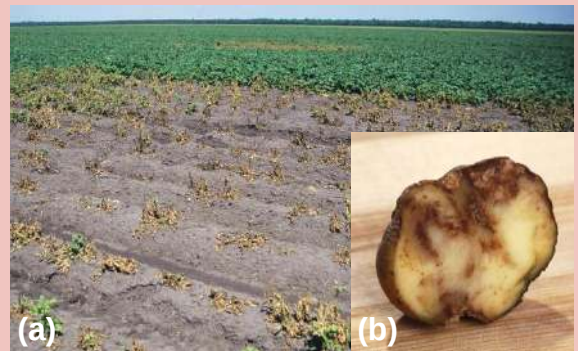
- 1 Can severely impact production of solanaceous species (including potato, tomato, eggplant).
- 2 This mating type is more harmful, fungicide resistant, and infectious than the A1 type that is already present in Australia.
- 3 Causes death of whole plants within days of infection.

- 4 Entry and establishment potential into Australia is considered 'high'.

#### It can be spread:

- 1 Short distances between plants/properties by wind and rain.
- 2 Via physical contact as it's highly contagious.
- 3 By hitchhiking on clothing, gloves, knives, vehicles and equipment - all of which are associated with staff and visitors.

Practicing good farm hygiene and ensuring visitors and staff are aware of your biosecurity practices in place will greatly reduce the likelihood of introducing new diseases into your production system.



(a) A potato crop and (b) potato infected with late blight. Credit: (a) Scott Bauer, USDA Agricultural Research Service, Bugwood.org, (b) Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org.



# Packaging, bins and pallets

**Did you know that packaging, bins and pallets are commonly re-used, often cross state borders and are transferred between properties?**

Just like vehicles and equipment, soil and plant material from harvested crops can carry pests and disease organisms onto your farm. This is especially the case with green leafy material that is attached to surfaces which may be infected with a range of diseases from previous users.

Biosecurity risks:

- 1 Transport of produce to new regions without any precautionary measures.
- 2 Re-using packaging, bins and pallets that have previously been used to store or transport produce without implementing proper hygiene practices first.



Where possible, pallets should be stored appropriately. This includes storage on a hard, clean surface that is away from production areas. Credit: Shutterstock.

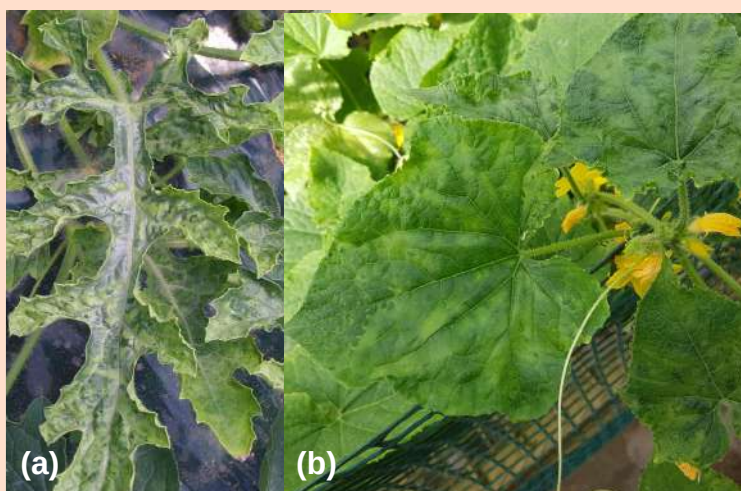
## **CASE STUDY: Cucumber green mottle mosaic virus (CGMMV) - Present in some areas of Australia**

**It can be spread by:**

- 1 Physical contact as it is a highly contagious virus.
- 2 Contaminated packaging, bins and pallets that have not been cleaned and disinfected appropriately before they are reused in the supply chain.

The natural short distance spread of CGMMV is through contact of contaminated soil, plant material, debris, water and packaging materials as the virus can survive on surfaces and in soil without host plants for long periods of time.

This contributes to its high spread rate and emphasizes the need to practice good farm hygiene when reusing equipment or packaging materials from the supply chain and on farm.



(a) Watermelon and (b) cucumber plants that are infected with CGMMV. Credit: (a) ABC News, (b) Northern Territory Department of Primary Industry and Resources.





# Management options

## ✓ Wash and disinfect field crates and bins regularly

Cardboard packaging materials should not be reused as they are unable to be properly cleaned and disinfected after transporting plant material.

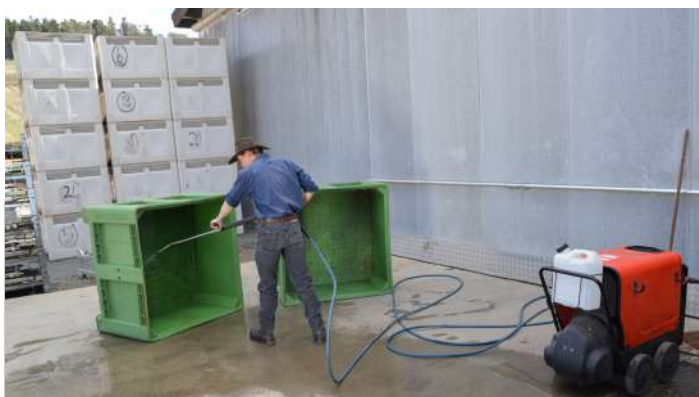
Plastic bins or packaging that are able to be reused should be disinfected before using them again in the supply chain.

Pallets should also be cleaned of any plant or soil material to reduce the spread of any pests and diseases that may be present on the pallet.

## ✓ Store packaging, bins and pallets appropriately

Pallets used for transporting produce should be stored on a clean, hard surface in a covered area that is away from production areas.

This greatly reduces the risks of pallets concealing any unwanted, harmful pests and diseases.



Clean and sanitise plastic bins before reusing in the supply chain. Credit: PHA.



Pallets used in post-harvest practices are free from any soil or plant material and are stored on dry, hard floor and away from production areas. Credit: PHA.

### CASE STUDY: Brown marmorated stink bug (*Halyomorpha halys*) - Not present in Australia

- 1 Significant threat to all of Australia's plant production industries.
- 2 Voracious generalist feeder.
- 3 Over 300 known host plants.

#### It can be spread:

- 1 Acts as a hitchhiker on a range of cargo from planting materials to electrical goods.
- 2 Packaging, bins and pallets are a potential major means of spreading BMSB if it were to arrive and establish in Australia.

You can protect your farm by checking your property frequently for the presence of unusual pests. Take care when opening packages from overseas.

Field crates, bins and pallets could be preferred habitats for BMSB adults.



(a) Newly hatched BMSB nymphs and egg mass. (b) BMSB adult. Credit: (a) Gary Bernon, USDA APHIS, Bugwood.org. (b) Steven Valley, Oregon Department of Agriculture, Bugwood.org.



# Waste and weeds

**Plant waste and weeds can be breeding grounds for plant pests and diseases.**

Any plant material can transport harmful pests and diseases whether they are transported by vehicles, equipment, or people. Waste in the field produced from harvested crops can also conceal and provide a protected environment for pests and diseases, leading to high infestations.

Weeds:

- 1 Outgrow crops,
- 2 Compete for valuable resources, and
- 3 Act as hosts for many plant pests and diseases.

Weeds can serve as a reservoir for pests and diseases which can then multiply and move out when new crops emerge. This causes costly damage.

Excess leaf material or abandoned unmarketable produce can attract pests and diseases too.

Controlling weeds reduces the ability of pests and diseases to remain in your fields after a crop has been harvested and breaks their life cycle by managing waste.



Controlling weeds allows you to break pest and disease life cycles for reduced pressure. Credit: Shutterstock.

## **CASE STUDY: Green peach aphid (*Myzus persicae*) - Present in Australia**

- 1 Widespread throughout Australia.
- 2 Can carry plant viruses between weeds and crops.
- 3 Major pest of many vegetable crops, including cucurbits, solanaceous and brassica crops.
- 4 Feed by sucking sap from leaves and flower buds, which reduces crop yield and quality.



(a)

### How do they spread?

- 1 When crops are available, they will readily attack preferred plants, but during fallow periods, they will live in weeds around paddock edges.

Without an effective weed management plan, weeds can host pests that reduce crop quality and yield but also increase the cost of chemical control.

Just like aphids, weeds can also harbor thrips and whiteflies, which can also transmit viruses between weeds and crops.



(b)

(a) A winged adult GPA and (b) a GPA colony on underside of the capsicum leaf. Credit: (a) Whitney Cranshaw, Colorado State University, Bugwood.org, (b) Scott Bauer, USDA Agricultural Research Service, Bugwood.org.



# Management options

## ✓ Clean up, dispose of and store plant waste appropriately

It is important to manage waste as a source of potential pest and disease spread. To manage this risk, plant waste should be cleaned up or disposed of (e.g. sprayed out, deep burial, burning, composting, etc.).

Waste should be kept away from growing areas and water sources where possible.



Clean up and dispose of waste appropriately. Credit: Handyman.net.au.

## ✓ Implement a weed management plan

Establish a weed management plan for your property and maintain weed-free buffer zones around growing areas.

By controlling weed populations, this helps prevent the chances of pests and diseases surviving on weeds and spreading to crops each season.

## ✓ Monitor and survey weeds

Monitor and survey weeds along boundaries and in wildlife corridors for pests and disease symptoms. This should be carried out regularly and during both crop and fallow periods as weeds are able to provide breeding grounds for pests despite there being no preferred host crop available.

If not managed, this can lead to high pest pressure at the start of each season when seedlings are most vulnerable.



Monitor weeds for pest and disease symptoms as many weeds are alternate suitable pest and disease hosts. Credit: Shutterstock.

### CASE STUDY: American serpentine leafminer (*Liriomyza trifolii*) - Present in some areas of Australia

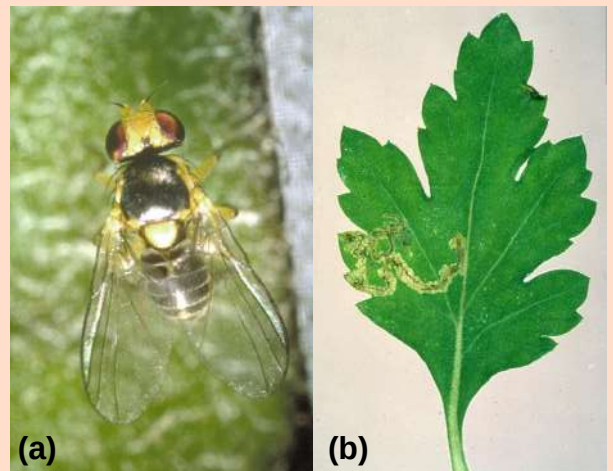
- 1 Exotic leafminer.
- 2 Recently been detected in northern Australia (July 2021).
- 3 A poor flier.

#### It can be spread by:

- 1 Wind.
- 2 Contaminated plant material, like seedlings.
- 3 Weed hosts that support pest populations, which allows them to spread to crops.

The American serpentine leafminer (ASLM) causes damage through adult 'sucking' feeding habits and egg laying into leaves. The mines are caused by larvae tunneling through leaf tissue. This damage reduces the leaf's ability to photosynthesise, leading to reductions in crop productivity and leaves the crop vulnerable to infection.

Mismanagement of plant and weed waste on-farm enables further pest spread around your property.



(a) ASLM adult. (b) ASLM larval leaf damage. Credit: (a, b) Central Science Laboratory, Harpenden, British Crown, Bugwood.org.



# Farm inputs

Anything moved onto your property can be a potential source of plant pests.

Farm inputs, including:

- 1 Fertiliser
- 2 Compost
- 3 Seedlings
- 4 Seeds

can spread populations of plant pests and diseases.

Many plant pathogens are able to survive in seeds, which is often how plant diseases spread to new regions over large distances.

Organic fertilisers like manure and compost can be sources of plant pests and diseases too. Ensure material is composted thoroughly to destroy their ability to conceal any pests and diseases.



Seeds and seedlings should be sourced from reputable or certified suppliers and guaranteed a high health status. Credit: Shutterstock.

## CASE STUDY: Black rot (*Xanthomonas campestris*) - Present in Australia

- 1 Bacterial disease.
- 2 Causes significant devastation to brassica crops world-wide.
- 3 Seed-borne.

It can be spread by: 

- 1 Seeds are the major means of disease spread.
- 2 Contaminated plant material.

It is often difficult to detect as seeds can appear symptomless but do infect seedlings after germination.

Once established in a location, the disease must be managed carefully as any contaminated plant material can aid disease spread and it can persist in a field for up to 2 years.

Black rot can be easily controlled through managing the risks of farm inputs.

Many other diseases can be spread through farm inputs including tobamoviruses and acidovorax fungal species.



Black rot on (a) brassica seedlings and (b) brassica crop. Credit: (a) Tom Creswell, Purdue University, Bugwood.org. (b) Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org.



# Management options



## Source planting material from reputable suppliers

Source planting and propagation material from a reputable supplier and ensure the products have a health status (e.g. seed certification). This may involve buying from a registered nursery and ensuring planting materials are tested prior to use on farm.

Use certified seeds as these are tested upon arrival in Australia to ensure they are free from major disease-causing organisms.



## Inspect seedlings upon arrival

Inspect seeds and seedlings upon arrival for the presence of any insect feeding or disease symptoms.

Where possible, isolate new plant material away from healthy plants to ensure they are pest and disease free prior to planting.

Regularly check newly planted seeds or seedlings for signs of pests and diseases. Depending on the circumstances, an application of a chemical control agent may be necessary before planting to ensure that there is no spread to your growing areas.



## Maintain your records

Maintain a seed and seedling register and record the source of fertilisers, application dates and where they were applied in case of any pest or disease occurrence as a result of these farm inputs.



Maintain records of farm input sources including fertilisers, seedlings, seeds. List application dates and location applied. Credit: Shutterstock.

### CASE STUDY: Exotic thrips (e.g. Bean thrip, *Caliothrips fasciatus*) - Not present in Australia

- 1 Feed and reproduce on a large variety of vegetable crops.
- 2 Cause significant economic and environmental impacts by contaminating produce, reducing quality and impacting market access.

- 2 Can damage to flowers, foliage and fruit of crops.

#### They can be spread:

- 1 Easily on plant material and wind.
- 2 Via hitchhiking as they hide in small, protected places like flowers or growing tips of young seedlings.

Management of farm inputs reduces the risks of introducing harmful thrip species onto your property. For example, exotic thrips like the bean thrip (*Caliothrips fasciatus*) are commonly intercepted at Australia's borders hiding in the navel of imported oranges.



Bean thrip leaf damage on blue wild indigo (*Baptisia australis*). Credit: Whitney Cranshaw, Colorado State University, Bugwood.org.



# Wind

**Pests and diseases can spread much further when assisted by wind.**

Routine checking of crops gives you the best chance of detecting a new pest or disease before it becomes established. Early detection of new pests and diseases in your crops can be achieved through routine crop monitoring. It gives you the best chance of preventing anything from establishing on your property and the ongoing expenses for their control.

Sticky traps and other trap types can assist crop monitoring. Sticky traps are a cheap and effective tool to measure what beneficial insects and pests have recently arrived.

Integrate these methods into your weekly schedule and ensure staff are trained to identify priority pests and diseases.



(a)

(b)

(a) Train staff to be aware of common and exotic plant pests and diseases. (b) Yellow sticky traps or similar can provide indications into pest and beneficial insect levels in crops. Credit: (a, b) AUSVEG.

## CASE STUDY: Fall armyworm (*Spodoptera frugiperda*) - Present in some areas of Australia

- 1 Destructive moth that attacks over 350 plant species, including sweetcorn, potato and capsicum.
- 2 Originated from the Americas, travelled to West Africa in 2016 and reached Australia's shores in early 2020.

### It spreads by:

- 1 Flying - they are strong fliers with adult females able to migrate distances up to 100 kilometres in one night and 500 kilometres in a lifetime.
- 2 Wind - adults can be spread much further with assistance from wind.

Integrated pest management is key to FAW management with a focus on crop monitoring for early pest detection and timely management. Early detection ensures quick and accurate timing of control methods on newly hatched egg clusters before they can shelter within the crevices of plants (e.g. leaf whorls).

Regular crop surveillance and monitoring for eggs and larvae helps minimize damages and reduce harvest losses by allowing you to get on top of the problem before things get out of control.

Wind can also assist the spread of thrips, whiteflies and fungal spores, presenting a significant risk to crop health.



(a)



(b)

FAW (a) egg mass and (b) larvae on corn. Credit: (a, b) Dr Helen Spafford, DPIRD Western Australia.



# Management options



## Regularly monitor and survey crops

Carry out regular pest and disease monitoring in crops and surrounding vegetation. Record all observations, including:

- 1 Date,
- 2 Pests identified,
- 3 Growing area affected,
- 4 Level of infestation,
- 5 Proposed treatment plan, and
- 6 Absence of sensitive or exotic pests (e.g. Tomato potato psyllid).



Regularly and routinely check crops and surrounding vegetation or weeds for signs of pests and diseases. Credit: Shutterstock.



## Use traps to aid pest surveillance

Use sticky traps or other suitable insect traps to aid pest monitoring for beneficial insects and pests. Record the details listed above. Where possible, record the absence of any exotic pests of concern for your region (e.g. Serpentine leafminer, if it is not yet present in your production area).



The use of traps in crop surveillance can aid early detection of new pests. Credit: Shutterstock.



## Train staff to be aware of common and exotic plant pests

Ensure all staff and other regular farm visitors are aware of, and are trained in how to identify, any common pests and diseases as well as any exotic pests and diseases of specific concern.

This increases the likelihood of early detections in cases of new pest or disease occurrences on farm.

### CASE STUDY: Black bean aphid (*Aphis fabae*) - Not present in Australia

- 1 Widespread throughout Europe, Asia, the Americas and Africa.
- 2 Wide host range, including many important vegetable crops.
- 3 Can infect crops with a range of harmful viruses.
- 4 Has high entry and establishment potential into Australia.

#### It can be spread:

- 1 Via plant material.
- 2 Via wind - a major means of aphid spread.

It could potentially arrive in Australia through wind-assisted flights.

If this pest were to arrive in Australia via airborne pathways, early detection is the best means possible for eradication efforts before it negatively impacts plant industries.



Black bean aphids. Credit: Ansel Oommen, Bugwood.org.

# What can I do next?

Now that you're aware of these six high-risk pathways through which pests and diseases can spread onto farm, there are several actions you can take to ensure you are managing them appropriately for your farm, business or property.

- 1** Review your farm's current biosecurity measures and identify which pathways you are controlling well, and which may require more management.
- 2** If there are certain pathways requiring more attention, use this booklet as a management guide.
- 3** If you are managing all pathways well, create a farm biosecurity plan for your property.

## Useful resources



[AUSVEG pest factsheets, webinars and other biosecurity resources.](#)

[Farm Biosecurity Action Planner.](#)



[Farm Biosecurity, Plant Health Australia.](#)

[Australian Government – Biosecurity page.](#)



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