



Tomato Grower Biosecurity Plan and Checklist 2017

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Any plant material moved onto your property can be a potential source of pests, diseases and weeds. Monitor any plant material that comes on to the property, as well as sources of water and fertiliser.

New plants

Introducing new plants on to your property can allow unwanted pests, diseases and weeds to enter the production system.

- Ensure you buy your seed and nursery stock from trusted sources.
- Isolate new plantings so these can be monitored for pests before on-planting, lowering the risk to your production area from new pests, diseases and weeds.
- Regularly check newly planted crops for the presence of pests, diseases and weeds, and treat before they become established
- If you see something unusual get it identified by your consultant and/or send a sample for identification or ring the MPI Exotic Pest and Disease Hotline 0800 80 99 66.

Water Sources

Many disease-causing organisms can survive for a long time in water sources until they find a suitable host.

- Ensure water sources are secure from contamination by diseases.
- If in doubt, test water supplies for disease organisms.

Hives

Bees from wild and managed hives pollinate many fruit and vegetable crops but may act as vectors for the spread of pests and diseases.

- Make sure you know where any bee hives have been prior to your property.
- The health of the bees should be checked by the owner of the hives regularly.

Moving plant products off the property

Plant material can spread pests, diseases and weeds from your property and put the productivity of the entire industry at risk.

- Ensure plant products are clean and that the transport vehicle is clean.

Sales and Markets

- Only take healthy plants or produce to sales and markets.
- Do not share equipment with others.

Product Transport

Dirty bins can transfer pests, diseases and weeds to harvested crops. Soil and plant material with harvested crops can carry pests, diseases and weeds.

- Ensure no waste plant material or pests are left on or in bins or transport containers by removing organic matter and disinfecting the bins.

Product Packing

Harvested crops with plant material can carry pests, diseases and weeds.

- Remove plant material from crops.
- Minimise post-harvest contamination.
- Use potable water for washing produce.

Property Access

Multiple entry points to your property make it difficult to control visitor access and manage high risk visitors such as those who visit multiple properties each day.

- Limit the number of access points to your property (lock unused gates).
- Use signs to direct visitors to designated parking or reception areas.
- Access to production areas should be limited to restricted personnel only.

Signage

Never assume that people know what to do when they arrive at your property. Without signage, visitors and staff may be unaware of the biosecurity.

- Erect signs to instruct visitors.
- Use clear instructions and provide relevant contact details.

Visitor Risk Assessment

Visitors can unknowingly carry pests, diseases and weeds on their clothes and personal items. The risk is greater if they've been in contact with other crops, or have recently been interstate or overseas.

- Conduct a risk assessment before you allow a visitor onto your property.
- If required, provide cleaning equipment or a change of clothing or footwear.
- To reduce the risk, refuse entry to high risk visitors.

Visitor to the property

Visitors may have come from diseased areas and it is difficult to trace back or trace forward in the event of an incursion.

- Direct all visitors to a designated parking area away from crops and ask them to report to management and sign a visitor register.

Visitor contact with plants

Visitors can carry pests, diseases and weeds on their clothes and personal items.

- Limit access to and contact with crops and eliminate any unnecessary contact altogether.

General hygiene

Pests, disease-causing organisms and weed seeds can be present on hands, clothing, footwear and personal items of people.

- Provide hand washing facilities, foot baths or alternative clothing and footwear for visitors to use while on-site(s).

Pests, diseases and weeds can enter a site(s) and be spread by equipment and vehicles, either directly or in plant material or soil. It is important to maintain equipment hygiene and ensure all vehicles that visit your property are clean and well maintained.

Equipment hygiene

Tools and equipment can carry pests, diseases and weed seeds and may be spread by borrowed or bought second-hand equipment from other properties.

- Clean and disinfect tools and equipment before and after use on crops.
- Clean and disinfect equipment between rows of plants (e.g. secateurs) or between different batches.
- Clean and disinfect second-hand or borrowed equipment before and after use.

Dedicated equipment

Practically, it may be best to have dedicated tools, clothing and footwear for use on crops affected by pests, diseases and weeds. This equipment should never be used in clean areas of your property.

- Have dedicated tools, clothing and footwear available for use in production areas or on plants affected by pests or disease.
- Always work with sick or suspect plants last.

Storage areas

Some pests, diseases and weed seeds can live in the natural environment for years.

- Clean and disinfect equipment storage areas regularly.

Vehicle entry points

Multiple, unsecured entry points to your property make it difficult to control access and manage high risk visitors such as utility providers who visit multiple properties every day.

- Encourage visitors to enter the property via one or two routes only. Use signs to inform visitors about property access points.

Vehicle movement and parking

All parts of a vehicle can carry disease-causing organisms, pests and weeds seeds. Restricting parking and vehicle movements within the property, can control and assist with monitoring the spread of diseases, pests and weeds.

- Minimise the number of vehicles allowed on the property and restrict them to designated visitor parking areas.
- Monitor areas next to parking facilities for signs of pests, diseases and weeds. Not all vehicles need to access production areas.
- If possible, use your own site(s) vehicles to transport visitors around the property.

Pests, diseases and weeds can enter a site(s) and be spread by equipment and vehicles, either directly or in plant material or soil. It is important to maintain equipment hygiene and ensure all vehicles that visit your property are clean and well maintained.

Vehicle hygiene and washes

All parts of a vehicle can carry pests and weed seeds.

- Provide a wash area for vehicles that need to enter production areas, or before moving crops.
- Use a high pressure wash down (or blow down) facility located well away from crops for cleaning vehicles and equipment.
- It is recommended that you also disinfect after washing.

Run-off from wash areas

Run-off from vehicle washing can contain pests, diseases and weed seeds.

- Collect run-off from vehicle wash areas in a sump, or direct it away from production areas.
- Monitor areas next to cleaning facilities for signs of pests, diseases and weeds and treat weeds before setting seed or becoming established.

Roads and tracks

There is an increased risk of introducing pests, diseases and weeds when vehicles travel off or divert from established roads and tracks.

- Ask visitors to stay on established roads or tracks.
- Check areas next to roads and tracks for pests, diseases and weeds and treat.

Good site(s) hygiene reduces the risk of spreading pests, diseases and weeds . Implement simple hygiene practices for water, product packaging, storage facilities, waste materials and plant propagation activities.

Water Management

The management of water supplies is important for healthy plants. If water sources become contaminated they can spread pests throughout production areas.

- Where possible, use drip irrigation for recycled water to avoid aerosol formation.

Plant Waste

Leaf material or discarded produce can attract or harbour pests, diseases and weeds and diseases. It is important to break their life cycle:

- Collect all plant waste that shows signs of pests or disease and dispose of it by deep burial or burning, well away from water sources, nursery and production areas.
- For cuttings or healthy waste plant material, use a dedicated waste management facility or compost it thoroughly.

Monitoring and surveillance

Early detection of pests, diseases and weeds gives the best chance of preventing them from establishing on your property and additional expenses for their control. Early detection also increases the chances of eradicating a new pest, disease or weed. Recording the absence of pests or diseases is just as important as recording what is present.

- Regularly monitor your crops.
- Become familiar with pests, diseases and weeds commonly found in your region so you will know if you see something different.
- Sentinel plants can provide early warning of emerging pest problems.
- Display posters which show common pests, diseases to help with identification.

Monitoring frequency

The frequency of monitoring depends on the type of crop being managed, and the production intensity. Additional monitoring may be required during disease outbreaks, seasonal presence of insects, or growing periods. This can minimise the chance of pests, diseases and weeds entering and spreading.

- Increase the frequency of inspections of crops during periods of higher risk, such as known disease outbreaks, increased insect activity or growing periods for weeds.

Product storage

Stored products, feed and equipment can attract or harbour pests, diseases and weeds. Soil and plant material adhering to harvested crops can carry insect pests and disease organisms.

- Clean equipment before storage.
- Remove loose soil and plant material from harvested crops before storage.
- Minimise post-harvest contamination.

Good site(s) hygiene reduces the risk of spreading pests, diseases and weeds . Implement simple hygiene practices for water, product packaging, storage facilities, waste materials and plant propagation activities.

Agrichemicals

Chemical residues on plant products can result in rejection from international and domestic markets, and can pose a risk to human health. The misuse of chemicals can also lead to the development of resistance by pests, potentially creating new biosecurity risks and management challenges.

- Be sure to follow the instructions on the label and observe withholding periods after treatments.
- Where necessary seek training in appropriate use of agrichemicals.

Pesticide resistance

Inappropriate use of chemicals can cause pests to become resistant, making control difficult. This can cause more ongoing biosecurity problems.

- If you suspect pesticide resistance, contact your consultant or chemical supplier.

Pest plants or weeds are a widespread nuisance but can also harm your production area so they need to be actively controlled.

Weeds

Weed species are biosecurity problems and alternative hosts of some pests.

- Establish a weed management plan, including plans for eradicating or managing weeds and to prevent the introduction of new species.
- Control weeds along tracks and roads, and next to parking or cleaning areas.
- Look for outbreaks of weeds, especially after drought, fire and flood.

Volunteer plants

Volunteer plants from production areas can create a 'green bridge' which can harbour pests or diseases between growing seasons.

- Control volunteers or green bridges including plants external to the greenhouse.

Property and land destruction

Property and land destruction can provide an environment for weeds to become established.

- Control weeds in surrounds after events.
- Inspect any new areas e.g roads, fences and treat weeds before they set seed and establish.

Ensure that staff are well trained and that you have the ability to trace where plants have come from and where they went. Keep accurate records of purchases, sales and movement of all products entering or leaving the property.

Biosecurity planning

A biosecurity plan will help you prioritise the implementation of biosecurity practices relevant to your property.

- Devise a plan for your property, prioritise actions.

Record keeping

A property owner or manager should be able to 'trace back' and 'trace forward' if there is a pest, disease or weed incursion on their property.

- Keep records of purchases and sales, health certificates and declarations, and pest and disease monitoring activities.

Vendor declarations and statements

Plants entering your property can carry pests, diseases or weed seeds. Simple visual inspection of plants may not be enough to know they are healthy.

- Always request history and supporting paperwork e.g. seed or nursery stock certification.

Staff training

Anyone working on the property (including friends and family) may not know how easily pests, diseases and weeds can spread and how to prevent this from happening.

- Inform staff of the biosecurity standards required on site.
- Provide biosecurity training or information sessions for staff.
- Have posters to remind staff of the importance of biosecurity.

Monitoring and surveillance

Active monitoring and surveillance can provide early warning of potential or emerging problems with pests and diseases. Monitoring data can be used to support continued access to international markets. Recording the absence of pests or diseases is just as important as recording what you do see.

- Keep a record of all crop monitoring, even if you don't see anything.
- Suspect diseases, pests and weeds.
- You have a responsibility to report unusual diseases, pests or weeds to the; **MPI Exotic Pest and Disease Hotline 0800 80 99 66.**

Biosecurity Best Practice checklist

Biosecurity Best Practice

Biosecurity best practice allows you to address any risk areas that you have identified in your production site(s). Identifying risk and changing practices is easier and cheaper than dealing with the introduction of a new pest, disease or weed.

Property Name:

Date of biosecurity check:

Pests, diseases and weeds (pests)	YES	NO	ACTIONS	COMMENTS
Commercial crops and nearby vegetation are frequently inspected for pests				
Active pest surveillance is regularly conducted, with activities and results recorded even when nothing is found				
You and your staff are familiar with endemic crop pests, so you know when you spot something unusual				
You and your staff are familiar with the high priority pest threats for your industry				
You and your staff know how and where to report suspect pests			0800 80 99 66	
Pest management plans (endemic and exotic) are developed for the site(s)				
Work with neighbours, government agencies, councils and/or pest control groups to reduce the spread of unwanted pests				

Product management	YES	NO	ACTIONS	COMMENTS
Planting material and seeds for all crops grown are free from pests				
Records of planting material source are maintained				
Staff can identify symptoms of crop pests for the propagation material				
No plant material is left on or in bins				
Product loaded and unloaded on compacted surfaces away from production areas				
People movement	YES	NO	ACTIONS	COMMENTS
Biosecurity signs advising visitors to check-in are at main entrance gates (include phone numbers)				
Visitor vehicle access is restricted to designated visitor parking areas				
Visitors sign a visitor register on arrival in case of a biosecurity emergency				
Only on-site vehicles are used to transport visitors and equipment around the site(s)				
Contractor entry to the site(s) is based on adhering to farm hygiene protocols; site biosecurity inductions are delivered where appropriate				
Contractors/visitors made aware if property is under a control notice for a pest				

People movement	YES	NO	ACTIONS	COMMENTS
Visitors clothing, footwear and tools are free of soil or plant material before entering or leaving				
All people from overseas have clean footwear and clothes before entering the site(s)				
Biosecurity plan is available for staff, consultants, contractors and visitors				
Staff are trained in biosecurity and site(s) hygiene practices (e.g. pest management, vehicle hygiene practices)				
Staff hygiene supplies are available where appropriate (e.g. hand sanitiser, gloves, masks, disinfectant footbaths, disposable over-boots and overalls)				

Equipment and vehicles	YES	NO	ACTIONS	COMMENTS
Designated parking area with clear signs provided for visiting vehicles and contractor equipment and area is checked frequently for pests				
Cleaning and wash-down facilities are provided for people, machinery and equipment and clearly signposted with instructions				
High-pressure water and/or air are available for use to remove plant material from equipment and machinery				
Machinery is inspected and disinfected before entering your production areas				
Borrowed/ second-hand machinery and equipment is cleaned before use				

Equipment and vehicles	YES	NO	ACTIONS	COMMENTS
Sump installed in wash-down facility to catch unwanted pests and waste, and to stop run-off into waterways				
Wash-down facility and surrounds are inspected frequently; records are kept and updated				
Site(s) vehicles are kept clean by regularly clearing the vehicle floor of soil, weed seeds and insects				
Vehicle movement is kept to a minimum in production areas				
Vehicle movement is limited to regular pathways through the site(s)				
Machinery is cleaned before being moved off property				