# Orchard Hygiene

Version 1: 1 March 2011



#### **Definitions**

- PZ: Psa Priority Zone
- HRA: High-Risk Area (greater Te Puke area)
- MRA: Medium-Risk Area (wider NZ)

#### **Background**

- Good hygiene practices may limit or prevent the spread of Psa from vine to vine or between orchards. Humans and machinery are considered low risk as long as they are not transporting plant material.
- The requirements described below are recommended best practice. Growers may elect to use additional measures if they wish.
- Review orchard activities to try to minimise risks of transferring Psa infection within and between orchards through the movement of plant material.
   Avoid orchard work under wet or damp conditions.

#### **Access to Orchard**

#### **All Orchards**

#### Check

• Growers should ensure contractors are aware of all key operational areas on the orchard (e.g. on a map). This should extend to providing clear orchard gate signage and instructing visitors/contractors in respect to: parking, equipment clean down, bin management and personnel sanitation. In addition the grower should outline any additional hygiene requirements.

#### Control

- Vehicles not required for orchard operations (i.e. workers cars etc) should be parked outside the orchard or in a specifically designated parking area away from the orchard plantings.
- Measures are implemented to exclude unauthorised access to the orchard (e.g. fence off, signage).
- Orchard entry is limited only to those essential for the orchard operations and movement is minimised onto and around the orchard.

### Cleaning Facilities

#### **PZ Orchards only**

#### Clean

 A handheld sprayer and a footbath shall be permanently stationed at the orchard entry point for use by all parties entering/leaving the orchard. A specific cleandown area on the orchard is required for equipment and vehicles. Minimum specification includes an area with at least a compacted base of sufficient size to park equipment on and access to water to ensure plant material is effectively removed.

#### **HRA & MRA Orchards only**

#### Clean

- A handheld sprayer and a footbath should be permanently stationed at the orchard entry point for use by all parties entering/leaving the orchard.
- A specific cleandown area on the orchard is recommended.

#### **Kiwifruit Plant Material**

#### **All Orchards**

#### Control

- Be aware that transfer of plant material is high risk.
  Ensure all steps have been taken to ensure plant material is free of Psa before moving it off an orchard.
- No mulching/composting of plant material from any vines showing symptoms.
- Minimise movement of plant material between blocks

### PZ Orchards only

#### Control

 All movement of kiwifruit plant material should be controlled and authorisation sought from KVH.

## Vehicles and Equipment with high risk of transferring kiwifruit plant material

 Examples include: pruners/cutting equipment, mowers, mulchers and airblast equipment that is used outside of the dormant period.

#### **All Orchards**

#### Check

 Ideally have a set of tools for each orchard. Any tools entering the orchard should have been cleaned of plant material and disinfected first.

#### Clean

- Disinfect cutting equipment between individual vines. Consider using two pairs of secateurs/girdling chain or other grafting equipment, alternating between them whilst the spare set is resting in disinfecting solution.
- Before leaving the orchard, clean any tools used with soap or detergent and water to remove any

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plant residues then sterilise by soaking for a minimum of 2 minutes in an approved broadspectrum disinfectant (e.g. Virkon, Trigene etc. follow label rates).

- After washdown, spray equipment with disinfecting solution, rinse (optional) and air dry. Tyres require particular attention - if possible use a disinfection pad sufficiently long enough for the tyres to run over the pad (slowly) for at least one revolution.
- Any cleaning equipment used (e.g. brushes) should be cleaned of visible plant material and disinfected afterwards.

### Vehicles and Equipment with low risk of transferring kiwifruit plant material

Examples include: herbicide sprayers, quad bikes and airblast equipment that is used in the dormant period.

#### **All Orchards**

#### Check

Check any equipment before entry for visible kiwifruit material. Any debris found shall be placed in a special purpose rubbish bin with double liners. Refer to Psa Resource 'Disposal options' for disposal options.

#### Clean

 Disinfect any vehicles and equipment previously used in the Psa Priority Zone prior to use.

#### Control

- Implement steps to minimise plant debris entering or attaching to vehicles and equipment.
- At the end of the operation, remove any kiwifruit plant material. If possible, wash down tractors and equipment that have moved through the orchard.

#### **People**

#### All Orchards

#### Check

- All workers and visitors should understand and follow the hygiene requirements prior to entering the canopy.
- Only necessary equipment and personal items are to be taken into the orchard.

#### Control

 Before leaving the orchard, orchard workers and visitors should ensure clothing, headwear and footwear is clean and free of plant material/soil.



#### PZ orchards only

#### Check

Where used, new/clean gloves should be used at the start of each orchard. Remove gloves prior to exiting the property and place in allocated bag.

#### Clean

- Cover hair: hat, disposable hairnet. Remove hairnet immediately prior to exiting the property and place in allocated bag.
- Disinfect hands and footwear (particularly the soles) immediately prior to exiting the property in a footbath or spray with an approved disinfectant (see chart below).
- Bagged gloves/hairnets shall either be washed (in Napisan) or appropriately disposed of. Refer to Psa Resource 'Disposal options' for disposal options.

#### **Disinfectant Options**

Disinfectant	Example	Suitable for
10% Household	Janola - e.g.	Footbath,
bleach	100ml Janola +	Orchard
	900ml water	equipment - soak
Broad spectrum	Virkon, Trigene etc	for at least 2
disinfectant	- use label rates	minutes
Methylated sprits		Personal
(or 70% alcohol)		equipment
Alcohol wipes		(glasses,
Sanitising wipes		cameras)
Hand sanitiser		Hands
Disinfectant sprays	Dettol	Hands, Footwear
Nappy sanitiser	Napisan	Clothing
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- When spraying, ensure all surfaces are covered.
- With all disinfecting solution options, consider corrosive or other aspects of the solution.
- For footbaths change the disinfectant solution daily or when heavily contaminated.

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