



# Sanitiser information

## Background

Appropriate hygiene measure must be taken to minimise the risk of transferring disease from vine to vine or between orchards. Disease can easily spread through infected plant material but equally may be transferred through orchard machinery, pruning tools, equipment, harvest bins, clothes and vehicles which are not cleaned.

Orchard hygiene practices are very important to help prevent disease spread, especially the removal of soil and plant material from equipment and machinery and footwear. Following with the application of a sanitiser is effective in killing many bacteria, fungal pathogens and viruses that may be present.

## Sanitiser use and effectiveness

When using sanitisers consider the following:

- Do they have proven efficacy against a range of pathogens?
- Will the item being sanitised come into contact with picked fruit (i.e., picking bags, bins, fruit grading equipment)? If so, ensure the product is food safe.
- Does the product need to be Biogro approved (refer to the [Biogro website](#))?
- Be aware of any health and safety risk associated with use (refer to Material Safety Data Sheet (MSDS) available from the supplier).
- Some sanitisers can be corrosive on some surfaces so refer to the supplier for more information.

### TO ENSURE EFFECTIVENESS

- Before spraying with sanitiser ensure all surfaces are free of debris e.g., soil and plant material.
- Application method, minimum times, and rates of use in the efficacy table must be followed.
- Change sanitising solutions frequently (e.g., in footbaths) as a build-up of organic matter may reduce the efficacy of the sanitiser product over time.

DDAC-based compounds and other QACs (quaternary ammonium compounds) - such as benzalkonium chloride (BAC) - are not permitted for use on surfaces that come into contact with fruit as these products can create residue issues within markets.

It is recommended that post-harvest operators ask their sanitiser suppliers for an analysis certificate prior to purchasing sanitisers for use on surfaces which will come into contact with fruit.

# Sanitiser information

Product type and/or active ingredients	Description and trade names	Rate	Effective on			Area for use					
			Fungal pathogens (Soil borne and tissue)	Viruses	Bacteria (including Psa)	Hands	Facilities and work areas	Tools, equipment, and machinery	Footbaths	Vehicles	Harvest bins and picking bags
			Effective when any soil and plant material removed before sanitising								
Broad spectrum disinfectants	Virkon	1%	✓	✓	✓			✓		✓	
	Varicide <sup>2</sup>		✓	✓	✓			✓			
	Envirosan	1%	✓	✓	✓			✓			
	Sterigene	1%	✓	✓	✓			✓			
Chlorine dioxide	Southwell AC, Hortisan, Biowash	1%	✓	✓	✓						✓
Household bleach <sup>1</sup>	e.g. Janola (unscented)(1:100 dilution)	1% (5% for tools)	✓	✓	✓		✓	✓	✓	✓	✓
>70% alcohol solutions	e.g. Methylated spirits *	Full strength			✓			✓			
Disinfectant sprays	e.g. Dettol use label rates	Label rates				✓	✓			✓	
Hand sanitiser	Gel, foam, or liquid antiseptic solutions	Full strength				✓					
		Rate	Effective on			Area for use					

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Bromo-chloro-dimethylhydantoin	Harvestcide gel	0.1%	✓		✓		✓	✓	✓	✓	✓
Octanoic acid	Aussan L44 *	0.3%	✓	✓	✓		✓	✓	✓	✓	✓
Sodium hypochlorite	Nuron BioSafe*	0.1%	✓	✓	✓		✓	✓	✓	✓	✓
Natural botanical oils	ActiveClean Botanical*	5%			✓		✓	✓	✓	✓	✓
Weak organic acid – use label rates	Citric acid*	3%	✓		✓		✓	✓	✓	✓	✓
Citrus extracts	Citrox14T	1%	✓		✓		✓	✓	✓	✓	✓
	Citrox PWT	1%	✓		✓		✓	✓	✓		✓

<sup>1</sup> Bleach solutions must contain 0.042% hypochlorite to be effective against Psa. For Janola, this means a 1% working concentration (a dilution of 1:100). For other bleach solutions check the label to determine the dilution required. Janola breaks down over time so change the solution regularly if using long term.

<sup>2</sup> For Varicide efficacy testing refer to [www.kvh.org.nz/vdb/document/657](http://www.kvh.org.nz/vdb/document/657)

\* Sanitisers suitable for use on organic orchards.



For use on non-fruit contact surfaces only - HIGH RESIDUE RISK