FUNGICIDAL POTASSIUM SOAP

ACTIVE CONSTITUENTS: 194 g/L POTASSIUM SALTS OF FATTY ACIDS

ecoprotector® was researched and developed in New Zealand with assistance from HortResearch® Ltd.

HortResearch® was commissioned by industry to look at alternative ways to control major diseases in high value export crops including wine grapes due to the potential threat of non-tariff barriers in Northern Hemisphere markets and fungicide resistance issues.

HortResearch® conducted numerous field trials with ecoprotector® over a seven year period in a number of susceptible grape varieties against Botrytis. The outcome of this intensive research program demonstrated that ecoprotector® when used as part of a season long program will provide protection against Botrytis in susceptible wine grape varieties equal to the industry standard programs at that time (1997-2003).

Studies conducted by SARDI confirmed ecoprotector® will also be effective under Australian growing conditions.

- Environmentally benign active Supports soil biodiversity
- Approved under EU & NOP regulations, BFA Registered Input
- 14 day withholding period in wine grapes
- IPM Compatible
- Improves efficacy of Powdery mildew sprays & aids in Sour Rot suppression
Studies have been conducted by Dr Martina Bernard (Zoology Department, University of Melbourne), using *Galenromus occidentalis* as an indicator species, given that *G. occidentalis* is a key mite predator and as a group phytoseiid species tend to be the most sensitive to fungicides sprays like eco protector® (Studies have shown that just one spray of mancozeb will kill 100% of phytoseiid species).

**Test results:** eco protector® had no significant toxic effects on *G. occidentalis* other than an initial topical effect on young juveniles, and a moderate to low initial effect on adult females. eco protector® had no effect on predatory mite reproduction, even under worst case scenario exposure, where predatory mites are exposed to eco protector® as very young juveniles (0-48 hrs-old). eco protector® allowed for good recruitment of the next generation of predatory mites.

**eco protector** is best used in a program to control both early latent infections around flowering and infections closer to harvest. eco protector® has also been shown to be effective when used as part of a sulphur program for Powdery mildew. Trials in New Zealand have demonstrated low rates of Sulphur @ 1.5kg/ha when used with eco protector® 0.5% v/v (max. 600L/ha high volume) is an effective treatment against Powdery mildew.

**Organic Program**

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<th>CROP</th>
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<th>RATE</th>
<th>CRITICAL COMMENTS</th>
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<tr>
<td>Grapevines</td>
<td>Botrytis</td>
<td>2L per 100 litres of water or up to 20 litres per ha in 1000 litres of water</td>
<td>Apply by high volume spraying to the point of run-off. Ensure thorough coverage of all parts of treated plants. Higher water rates will give better coverage and better botrytis control. Apply the first treatment at early flowering followed by a second application around late flowering. Repeat applications at other strategic growth stages eg 20% Capfall, 80% Capfall and PRE-Bunch closure or at 21 day intervals until 14 days before harvest.</td>
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**MIXING:** Add the product at the appropriate rate to water and mix well. Use good quality, soft water of pH 6 to 8. The use of hard water may cause precipitation and the addition of a softener is recommended.

**APPLICATION:** eco protector® should only be applied using suitable dilute ground application equipment. Concentrate spraying is not recommended. Equipment should produce a spray that ensures penetration of the canopy and coverage of the flowers or bunches. Use a sprayer designed to apply high spray volumes, up to the point of run-off and matched to the crop being sprayed. The sprayer should be set-up and operated to achieve even coverage throughout the crop canopy to the point of run-off. Avoid excessive run-off. Add the amount of product specified in the Directions for Use table. However, if greater than 1000 L/ha is required to achieve point of run-off, adjust the amount of product by 2 L of eco protector® for every 100 L to ensure that a dilution of 2% is achieved. The required dilute spray volume to achieve point of run-off will change and the sprayer set up and operation may also need to be changed, as the crop grows.

**COMPATIBILITY:** eco protector® is compatible with eco carb, copper hydroxide fungicides and sulfur. Do not add other pesticides. The addition of wetting or sticking agents is not recommended.