# ecoprotector® BOTRYTIS PROTECTION







- **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**

### FUNGICIDAL POTASSIUM SOAP

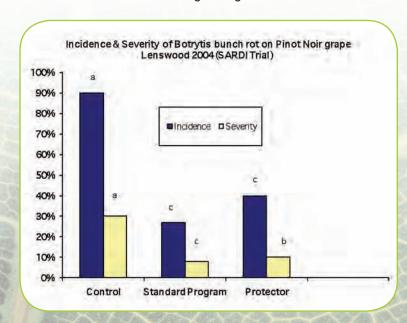
ACTIVE CONSTITUENTS: 194 g/L POTASSIUM SALTS OF FATTY ACIDS

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 nontariff 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 **eco**protector® will also be effective under Australian growing conditions.







# **eco**protector is compatible with IPM

Studies have been conducted by Dr Martina Bernard (Zoology Department, University of Melbourne), using *Galendromus 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<sup>®</sup> 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<sup>®</sup> had no effect on predatory mite reproduction, even under worst case scenario exposure, where predatory mites are exposed to **eco**protector<sup>®</sup> as very young juveniles (0-48 hrs-old). **eco**protector allowed for good recruitment of the next generation of predatory mites.

# **eco**protector use pattern

**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**











5-10% capfall

80% capfall

PRE-Bunch closure

Verasion

14 days before harvest

CROP	DISEASE	RATE	CRITICAL COMMENTS
Grapevines	Botrytis	2L per 100 litres of water or up to 20 litres per ha in 1000 litres of water	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.

**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.



