

ecocarb®

ORGANIC FUNGICIDE



ecocarb® is a contact fungicide containing food grade Potassium Bicarbonate, specially formulated to make it biologically active against fungal diseases. **ecocarb®** contains a unique surfactants system that enables it to be used at low rates with maximum efficacy and low risk of burn. When applied on a regular basis, **ecocarb®** has been proven to control Powdery mildew in most horticultural crops. It is ACVM registered for the control of Powdery mildew and Black spot in a range of horticultural crops.

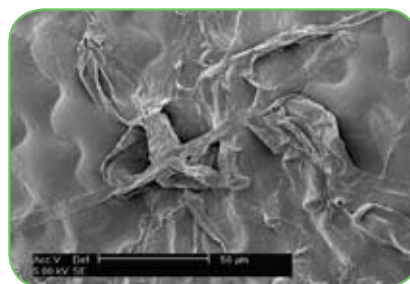
ecocarb® is a BioGro Certified organic alternative to conventional fungicides. It is safe to use in environmentally sensitive areas within IPM systems where Sulphur is undesirable and unlike other “soft” Powdery mildew sprays like milk or whey, it is effective under low light levels without the risks of lactose residues.

HOW DOES **ecocarb®** WORK?

When applied to fruit or foliage, **ecocarb®** changes the pH on the surfaces creating a more alkaline environment. This pH change disrupts the cellular processes of germinating fungal spores, inhibiting their growth and preventing their spread. **ecocarb®** also damages the cell wall of fungal cells resulting in the dehydration and death of fungal vegetation, providing effective disease control.



Fungal mycelium before application



Fungal mycelium after application

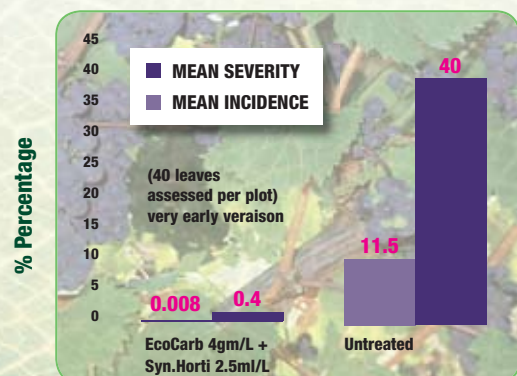
ecocarb® IS REGISTERED EFFECTIVE AGAINST

- Powdery mildew on apples
- Powdery mildew on cucurbits
- Powdery mildew on strawberries
- Powdery mildew on tomatoes
- Powdery mildew in grape vines
- Powdery mildew and Black spot on roses
- Dollar spot on turf

ecocarb® POWDERY MILDEW trials results in some key horticultural crops

Powdery mildew Control in Grapes

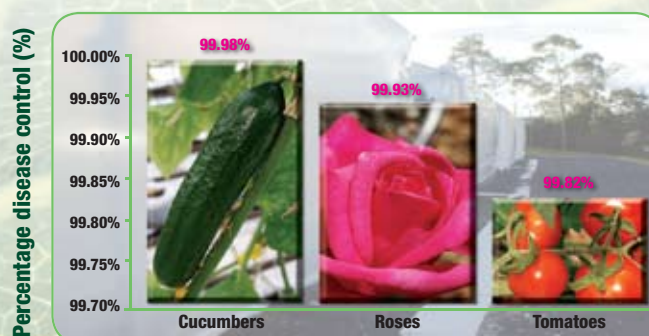
(%) mean incidence and severity February 16, 2004



Dr. Kathy Evans TAS. DPI, Pooley's Vineyard 2003-04

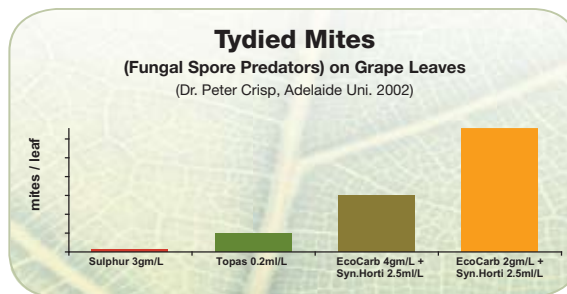
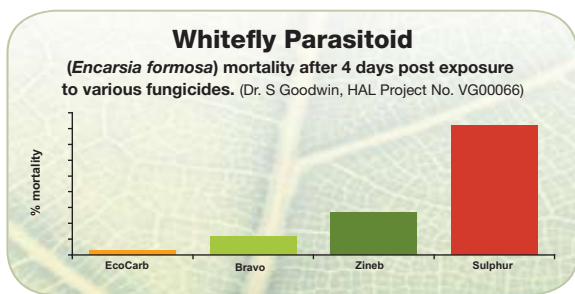
Control of Powdery mildew

in a variety of crops using **ecocarb®** (4gm) + Syn. Horti



Dr. Peter Crisp, Uni. Adelaide 2001-02

ecocarb® IS COMPATIBLE WITH IPM



- Studies conducted at the National Centre for Greenhouse Horticulture Gosford, NSW, Australia have revealed that *Encarsia formosa* when exposed to direct sprays and residues of **ecocarb®** and Synertrol Horti Oil® had almost no effect on mortality rates. Trials conducted on *Phytoseiulus persimilis* (phytoseiid predatory mite) also resulted in no significant reduction in mite numbers after three applications of a combination of eco-oil® 2.5ml/L and **ecocarb®** at 3gm/L.
- Adelaide University Researchers have discovered the importance of tiny mites called Tydied mites in grape vines that actively feed on Powdery mildew spores. **ecocarb®** appears to have the least impact on their numbers. Safety to *P.persimilis* and Tydied mites would also indicate safety to other beneficial predatory mites like *Amblyseius victoriensis* and *Typhlodromus* spp. These mites are an essential part of IPM in many horticultural crops making **ecocarb®** an attractive alternative to current fungicides like sulphur.

ecocarb® USE PATTERN

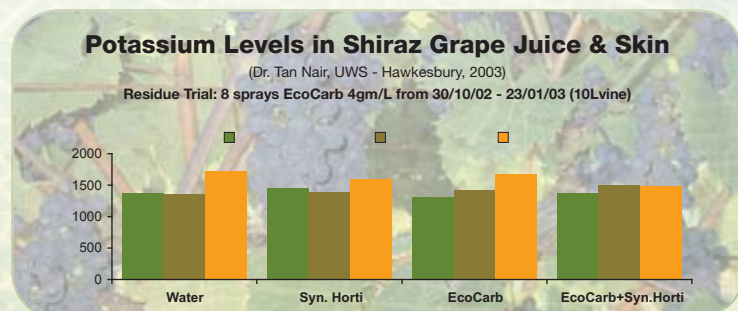
Always use Synertrol Horti Oil® or eco-oil® with **ecocarb®**. Field Trials over the past five years have proven that the addition of Synertrol Horti Oil® or eco-oil® increases the efficacy of **ecocarb®** against Powdery mildew.

Crop	Pest/Disease	Rate/100L	Critical Comments
Tomatoes	Powdery mildew	300-500g	Apply as new growth or infection occurs, or if conditions favour disease. Use the higher rate when disease pressure is high or infection is severe. Ensure adequate coverage of the spray target with a high volume spray. The addition of eco-oil® or Synertrol Horti Oil® @ 2.5ml/L is recommended for better coverage. Note: Synertrol Horti Oil® applications should not be applied at intervals less than 10 days apart in Roses or Apples and not applied with captan, chlorothalonil, dithianon, or Euparen.
Cucurbits	Powdery mildew	300-500g	
Strawberries	Powdery mildew	400g	
Ornamentals (Roses)	Powdery mildew & Black spot	300-400g	
Apples	Powdery mildew	300-400g	
Grapes	Powdery mildew	300 g / 100 litres of water, or 1.5 kg / ha at budburst, up to 3 kg / ha at full canopy.	Apply every 10-14 days from 2 weeks after budburst up to veraison. Always apply with Synertrol Horti Oil® @ 200 ml / 100L. Apply with a minimum of 500 L / ha of water up to 1000 L of water / ha at full canopy. Note: Synertrol Horti Oil® applications should not be applied at intervals less than 10 days apart and not applied with captan, chlorothalonil, dithianon, or Euparen
Turf	Dollar spot	100gm/100m2 in a minimum of 100L of spray	Apply at first sign of disease. Repeat with new turf growth and while conditions are favourable for disease. Apply to run-off with Synertrol Horti Oil® @ 500 ml/100L.

DO NOT MIX WITH CHEMICALS WITH LOW pH VALUES < pH5

Note: Trials conducted by OCP have proven that the addition of Synertrol Horti Oil® will improve the effectiveness of **ecocarb®**. Where Synertrol Horti Oil® is not available eco-oil® can be used as an alternative tank mix.

ecocarb® AND POTASSIUM RESIDUES



Trials conducted by the University of Western Sydney (Hawkesbury) have proven that the Potassium in **ecocarb®** does not enter the plant or berry and will not impact on juice or wine quality.



Manufactured by **ORGANIC CROP PROTECTANTS Pty Ltd** ACN 003 149 719

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