

# Cinner<sup>BIO SOLUTIONS</sup>

Cinner is a broad spectrum foliar application  
used on multiple plants.

## Fast Effective Control/ Preventative and Curative Activity

Cinner is a fast acting knock down miticide, fungicide that goes to work immediately to stop disease, immobilize and kill mites, and other insects. The active ingredient is based on cinnamon oil, emulsified with potassium oleate. The innovative formulation provides high levels of control with low applications rates, excellent crop safety, and has little to no effect on beneficial predator populations.

### Pest Control

**Insects:** Dual action for disease, mites, scale and insects

**Disease:** Powdery Mildew, Botrytis, Rust

### Broad Crop Uses

Cinner is registered on most crops; please check the label for a full listing.

### Key Advantages

- Immediate knock down of disease and pests
- Preventative & curative disease action
- Dual action for disease and mites
- Ideally suited for Integrated Pest Management (IPM)
- Compatible with most BCA (Biological Control Agents)
- Safe on beneficial predators
- Flexible application – can be use up to and during harvest
- Multiple modes of action/Resistance management
- Synergist tank mix partner fungicides/miticides

### Mode of Action Disease

**Curative/Eradicant:** affects the mitochondrial oxidative process, disrupting enzymatic activity of the pathogen cell membrane, causing rapid dehydration and disappearance of symptoms.

**Preventative:** Inhibits mycelial growth and prevent germination of fruiting bodies, disrupting the disease life cycle and preventing its spread. Fuming volatiles inhibit disease development.

### Mode of Action – Mites & Insects

**Fast Acting:** Cinner causes immediate insect death by asphyxiation, through sealing the spiracles. Disrupting the nervous system and interfering with the glucose uptake and utilization. Resulting in effective control of all mite life stages including eggs.

### Useful Information

**Application Rates:** 13-60 ounce per 100 gallons depending on the crop and target pest.

**Concentration Based Use Rates:** Use rates are based on spray solution concentration (ounces/100 gallons), use rate per acre are determined by spray solution needed for sufficient coverage.

**Contact Pesticide:** Cinner is a contact pesticide requiring direct contact with the target pest. good spray coverage is essential. Typically, 85-125 gallons of spray per acre are required for thorough coverage.

**Spray Timing:** The best timing for application is during calm conditions during the early or late part of the day, when pest are most active. Avoid applications when temperature exceed 85 degrees.

**Tank Mixes:** Cinner can be safely tank mixed with most pesticides.

**Sulfur Compatible:** Cinner has no restrictions before or after applications the use of sulfur.

**Excellent Crop Safety:** Cinner innovative formulation has 6 years of proven crop safety.

**Cinnamon Odor:** There will be a cinnamon odor following an application, however it will not permeate the crop tissue and **does not affect the quality, odor, or flavor.**

**Zero Residue:** Cinner is based on food grade oils so there are no crop residue concerns or re-entry restrictions on the product.

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## Cinner has a Low Impact on Beneficials

### bumble bee

- Bombus sp. (abejorros)

### predatory mite

- amblyseius californicus

### predatory mite

- amblyseius cucumeris

### predatory mite

- amblyseius swirskii

### predatory midge

- aphidoletes aphidimyza/ feltiella acarisuga

### hoverfly

- episyphus balteatus (sirfi dos)

### parasitic wasp

- encarsia formosa

### parasitic wasp

- aphidius spp.

### green lacewing

- chrysoperla carnea

### lady bug

- coccinellidae (mariquitas)

### leafminer parasite

- dacnusa sibirica/diglyphus isaea

### whitefly parasite

- eretmocerus spp.

### minute Pirate Bugs

- orius spp.

### predatory mite

- phytoseiulus persimilis

### predatory mite

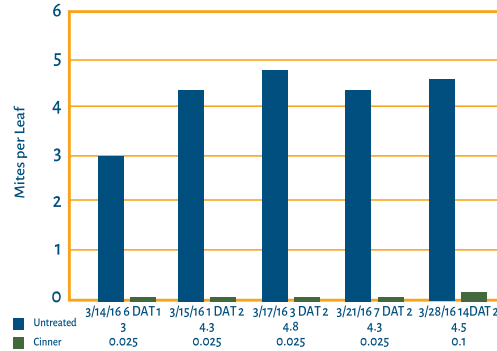
- typhlodromus pyri (viñedo y frutales)

### predatory mirid bug

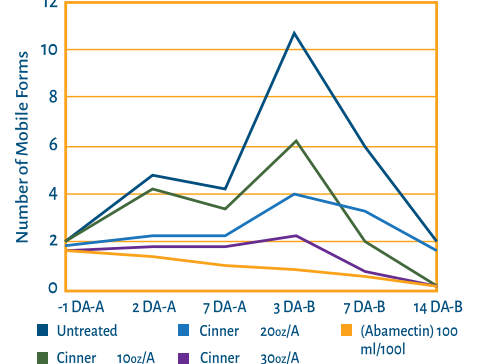
- Macrolophus caliginosus/ nesidiocoris tenuis

## Trial Results—Mites, Powdery Mildew, Scale

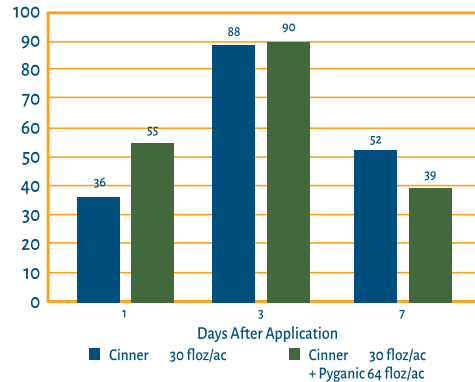
Mite Efficacy Strawberries  
Two Spot Spider Mite *teranychus* TRMT 2



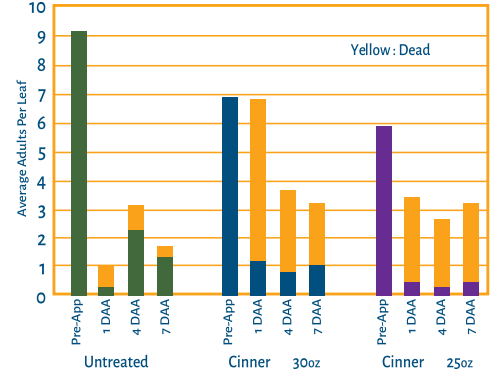
Strawberries - Mite Control  
Evolution of the number of mobile forms per leaflet



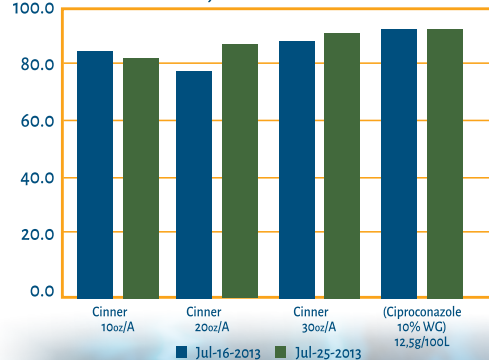
Percent Mealy Bug Control on Leaves  
2016 Pinot Noir Wine Grapes



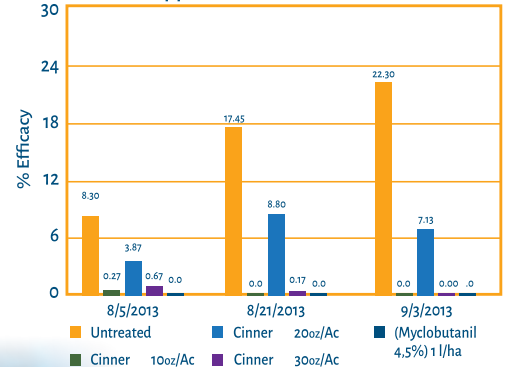
Citricola Scale Adults Per Leaf  
2016 Mandarin Oranges



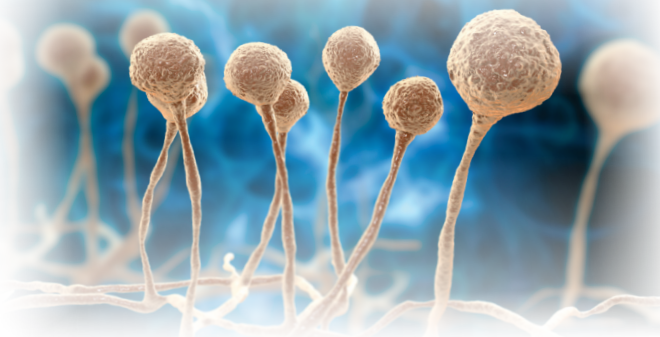
Powdery Mildew Peaches  
Efficacy on shoots according to the percentage of injured shoot area



Powdery Mildew Vineyard  
3 Applications of Cinnerate



For Organic Use



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375 Calliandra Street, Montana Park  
Pretoria, 0182  
Tel: +27 87 110 0129  
Email: [info@duxagri.com](mailto:info@duxagri.com)  
[www.duxagri.com](http://www.duxagri.com)