

## Powdery Mildew Tech Sheet

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

### Powdery Mildew Controlled

- Oidium spp. • Microsphaera spp. • Sphaerotheca spp. • Oidopsis spp. • Podosphaera spp. • Erysiphe spp. • Uncinula spp. • Leveillula spp.

### Other Pests Controlled

**Diseases:** Powdery Mildew, Botrytis, Rust

**Insects:** Mites, Mealy Bug, Scale

### Broad Crop Registration

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

### Key Advantages

- Fast acting curative / preventative
- Dual action for mildew and mites
- 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

### Superior Alternative to Potassium Bicarbonate

Cinnerate is an easy to use low dose liquid that provides superior disease control when compared to potassium bicarbonate products. In field trials, efficacy is equal to or better, for quickly

knocking down and controlling powdery mildew, plus Cinnerate offers mite, scale, and mealy bug control as an added benefit.

### Recommendations

**Application Rates:** 20-35 ounces per 100 gallons depending on disease level

**Spray Solution:** 50 - 200 gallons per acre

**Contact Pesticide:** Cinnerate is a contact pesticide direct contact with the target pest is essential.

### Suggested Application Timing

**Early-Season:** Cinnerate can be combined with a dormant oil or early season spray oil application or with first cover sprays to sanitize surfaces for disease prevention.

**Mid-Season:** Apply Cinnerate alone or in a tank mix for fast knockdown control.

**Late-Season:** Cinnerate can be used up to the day of harvest to stop and desiccate mildew that may have established on foliage or fruit.

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

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

**Excellent Crop Safety:** Cinnerate's innovative formulation slows the oxidation rate and reduces the potential for phytotoxicity. Do not use when the temperature is above 85 degrees.

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

- 4-hour REI
- 0-Day PHI
- No Visible Residue
- Resistance Management
- Exempt from food tolerance – No MRLs
- NOP Organic / OMRI listed



**Ask your Ag retailer about Cinnerate or contact:**

Sym-Agro 541-607-5097 / info@Sym-Agro.com

TS.CINNERATE.POWDERYMILDEW.021717

## Cinnerate 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*

**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.

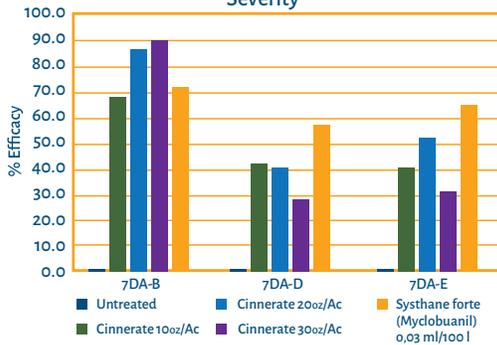
**minute Pirate Bugs** - *orius* spp.

**predatory mite** - *phytoseiulus persimilis*

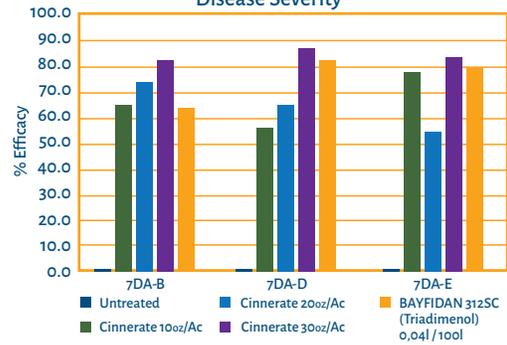
**predatory mite** - *typhlodromus pyri*  
(viñedo y frutales)

**predatory mirid bug** - *Macrolophus caliginosus / nesidiocoris tenuis*

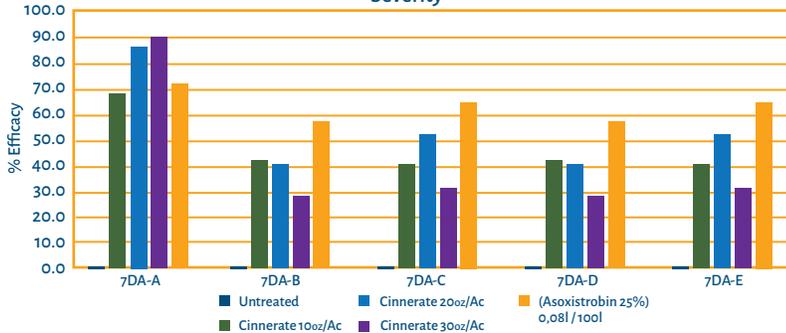
Powdery Mildew Control - Strawberry Severity



Powdery Mildew Control - Melon Disease Severity



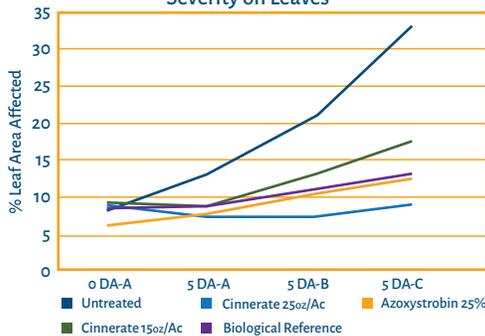
Powdery Mildew Control - Strawberry Severity



Powdery Mildew Vineyard Unicula necator Severity



Powdery Mildew Cucumber Severity on Leaves



Powdery Mildew Cabernet % Infection Leaves

