

Scale Control Tech Sheet

Cinnerate is a fast acting knock down insecticide, fungicide 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.

Target Pest: Scale

European Fruit Lecanium ● San Jose Scale ● California Red Scale ● Yellow Scale ● Black Scale ● Brown Scale ● Soft Scale ● Citricola ● Purple Scale ● Yellow Scale

Secondary Pests Controlled

Insects: Mites, Mealy Bug

Diseases: Powdery Mildew, Botrytis

Broad Crop Registration

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

Key Advantages

- Superior control of adult & armored female
- Dual action for scale 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

Fast Acting: Cinnerate 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 insect life stages including eggs

Scale Control

Cinnerate is provides effective knock down control of all life stages of scale. Research shows it is most effective on the adult scale & armored female, providing growers the opportunity to control scale before crawlers emerge. Many of the scale insecticides are weak on adults, making Cinnerate the ideal tank mix partner for more effective control.

Recommendations

Application Rates: 25-30 ounce per 100 gallons depending on scale population

Spray Solution: 100-500 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 eliminate established scale.

Mid-Season: Apply Cinnerate alone or in a tank mix for improved efficacy on all life stages of scale.

Late-Season: Cinnerate can be used up to the day of harvest to kill and desiccate scale that may have established on fruit, or used post-harvest to clean up 3rd instar scale before winter.

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 a 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
- 28 Day Duration of Protection
- SAR / ISR
- Exempt from food tolerance – No MRLs



Ask your Ag retailer about Cinnerate or contact:

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

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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 - dacus sibirica /

diglyphus isaea

whitefly parasite - eretmocerus spp.

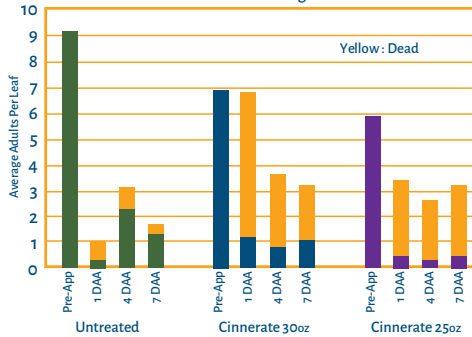
minute Pirate Bugs - orius spp.

predatory mite - phytoseiulus persimilis

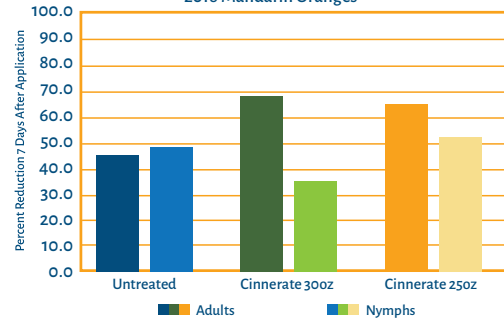
predatory mite - typhlodromus pyri (viñedo y frutales)

predatory mirid bug - Macrolophus caliginosus / nesidiocoris tenuis

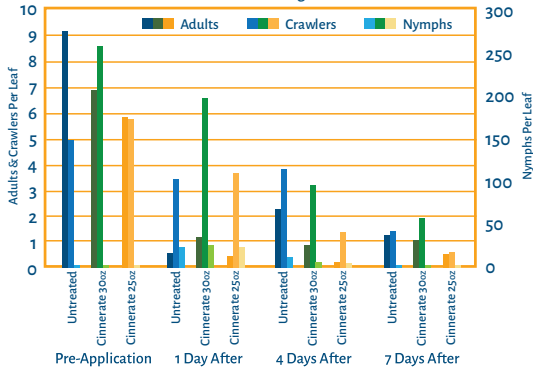
Citricola Scale Adults Per Leaf
2016 Mandarin Oranges



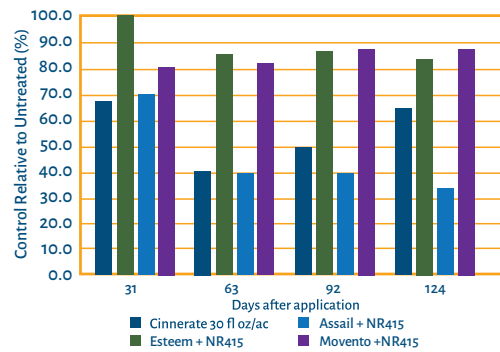
Reduction in Citricola Scale Population
2016 Mandarin Oranges



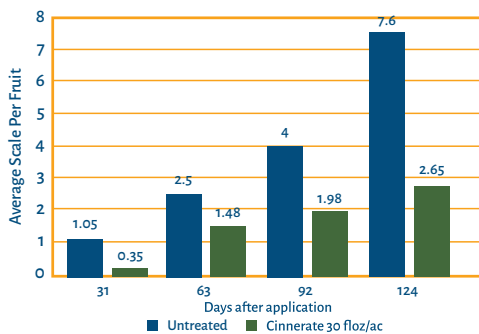
Citricola Scale Per Leaf
2016 Mandarin Oranges



Citrus CA Red Scale Percent Control



Citrus CA Red Scale Per Fruit



Citrus CA Red Scale Percent Control

