

Applaud® IGR provides highly effective control of citricola scale and cottony cushion scale in citrus trees. The active ingredient, buprofezin, is extremely effective against the crawler and nymph stages of the scales by inhibiting chitin biosynthesis.

### Key Benefits

- Not disruptive to most beneficial insects including Aphytis.
- Short PHI of 3 days does not interfere with harvest of crops.
- Unique mode of action makes it an excellent rotational tool for insecticide resistance management.
- Controls nymphal stages of scales – reducing damaging honeydew production.
- Vapor activity of Applaud helps the product get to tough insect hiding places.
- Also controls California red scale (see reverse side).
- No known scale resistant populations to Applaud.

### Timing of Sampling and Spraying

- **Citricola scale crawlers** – Sample females on twigs in May. Spray at crawler emergence in June.
- **Citricola scale nymphs** – Sample nymphs on leaves from July to September. Spray nymphs from July to September.
- **Cottony cushion scale nymphs** – Sample nymphs on the leaves in June. Spray the nymphs from mid-June to July.

### Recommended Use Rates

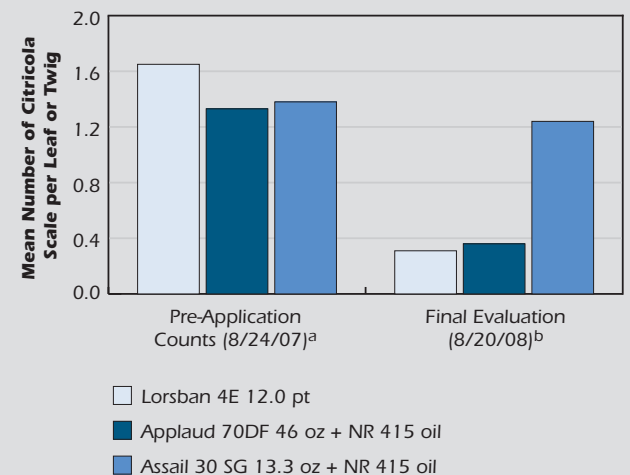
- 34.5-46 oz/acre. Lower rates are effective on crawlers, use higher rates on nymphs.
- Use a minimum of 750 gpa on nymphs for mature trees.
- Proper coverage is essential for optimum scale control. Tractor speeds of 1.25 mph and higher volumes of water may be necessary to assure better coverage.
- Addition of oil will enhance control of scales.

### Use Information

- Reentry interval – 12 hours
- Pre harvest interval – 3 days
- Group 16 insecticide



### Efficacy of Applaud Against Populations of Citricola Scale in 'Parent' Navel Orange Trees



<sup>a</sup>Mean number of citricola crawlers from 10 leaves per tree

<sup>b</sup>Mean number of citricola adult females from 5 twigs per tree  
Application date: 09/13/07

Treatments were diluted in 500 gallons of water per acre and applied using an air blast sprayer.

Grafton-Cardwell, Elizabeth E., University of California Riverside, Lindcove Research and Extension Center, 2007

See reverse for additional information >

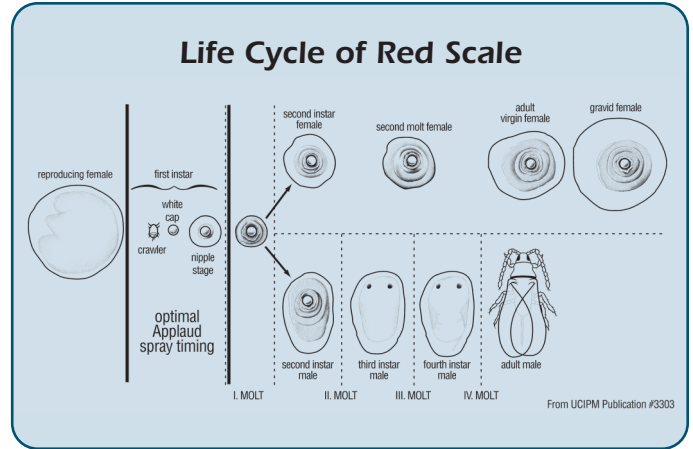
# Control of California Red Scale

## Use Information

- Applaud is most effective on the crawler stage and white cap stage of red scale.
- The best spray timing is at early crawler emergence.
- Recommended use rate for red scale control: 46 oz/acre.
- Adequate coverage is critical for control.

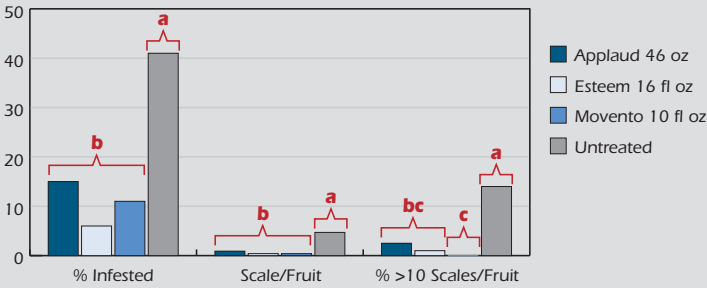
## Spray Timing

	MAY	JUN	JUL	AUG	SEP	OCT
Red Scale - 1st Crawler						
Red Scale - 2nd Crawler						



## Efficacy of Applaud on Red Scale in Citrus

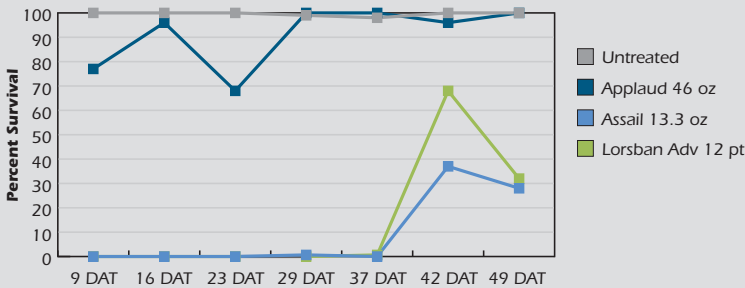
Application Timing - First Generation Crawler



Treatments with the same letter do not differ statistically  
 Spray Volume: 500 gpa  
 NIS 0.25% V/V  
 LSD P<0.0001  
 Harvest Evaluation in October

Sawtooth Research, Ivanhoe, CA, 2010

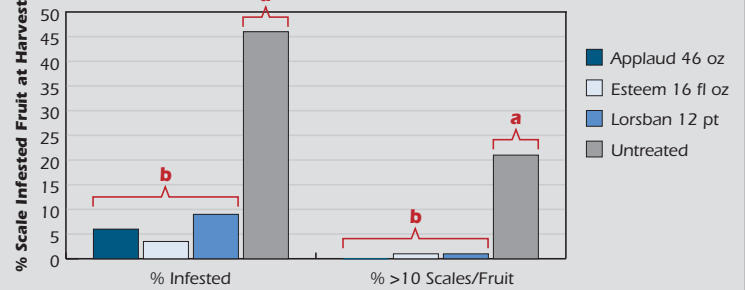
## Toxicity of Citrus Insecticides to Aphis Adults in Citrus



Grafton-Cardwell, Elizabeth E., University of California Riverside, Lindcove Research and Extension Center, 2010

## Efficacy of Applaud on Red Scale in Citrus

Application Timing - First Generation Crawler



Treatments with the same letter do not differ statistically  
 Spray Volume: 1,000 gpa  
 Crawler Emergence Mid-May  
 LSD P<0.05 Duncans' New MRT  
 Harvest Evaluation: October 5th

Sawtooth Research, Ivanhoe, CA, 2009

