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# Citrus—California Red Scale Pheromone Trap Monitoring

## Supplement to UC IPM Pest Management Guidelines: Citrus

Grower: \_\_\_\_\_ Block: \_\_\_\_\_ Date: \_\_\_\_\_

Comments: \_\_\_\_\_

In the San Joaquin Valley, use pheromone trap monitoring during the first (May), second (June-July), and fourth (Sept.-Oct.) flights of male scale.

Use the biofix of first male capture and degree-days to estimate when these flights are occurring. Note that pheromone cards are not reliable predictors of scale populations in *Aphytis*-release orchards or when insect growth regulators are used.

In all orchards in all growing regions, whether *Aphytis* wasps are released or not, also conduct visual inspections of citrus fruit once a month during August, September, and October.

### How to use pheromone traps for weekly monitoring

1. Monitor 5 to 6 orchards that have a known population of red scales every week, so that you can determine when flights are occurring and time your sprays.
2. Put out pheromone traps beginning in March (before the 1st flight).
3. Change the sticky cards weekly and the pheromone caps monthly through October.
4. Use two to four pheromone traps per 10-acre block; add two traps for each additional 10 acres.

### How to use pheromone traps to monitor flights

1. Set out pheromone traps in the remaining orchards to determine areas of heavy scale infestation.
2. Hang pheromone traps with a fresh lure just before the predicted 1st, 2nd, and 4th flights. Place traps out March 1 (before the 1st flight), and at 1,100 degree-days [2nd flight] and 3,300 degree-days [4th flight] after the biofix of the first male flight.
3. Use two to four pheromone traps per 10-acre block; add two traps for each additional 10 acres.
4. Remove traps at the end of each flight and count [or estimate based on counting the scales inside the squares (20%) and multiplying by 5] scales and record the numbers.
5. These traps tell you which areas of the block have heavy infestations of scale.
6. If the 4th flight is heavy (more than 1,000 scales per card), and fruit is infested with scale at harvest, plan to treat during the next season.

Block Number \_\_\_\_\_

Block size \_\_\_\_\_

Trap date out	Trap date in	Total (or estimated) number of males per trap						Average
		Trap 1	Trap 2	Trap 3	Trap 4	Trap 5	Trap 6	
		Location:	Location:	Location:	Location:	Location:	Location:	