

### California Red Scale – The Heat Is On

	1st male flight	1 <sup>st</sup> gen Crawlers	2nd male flight	2nd gen. crawlers	3rd male flight	3rd gen. crawlers	4th male flight	4th gen. crawlers	5th male flight
Estimated Degree Days	Prior biofix	Crawler biofix	550 DD from crawler biofix	1100 DD	1650 DD	2200 DD (predicted)	2750 DD	3300 DD	3850 DD
Kern	Apr 3	May 8	June 5	June 26	July 17	August 7			
Tulare	Apr 3	May 8	June 5	June 26	July 17	August 7			
Fresno	Apr 10	May 15	June 12	July 3	July 24	August 14			

**Red Scale Lower Developmental Threshold: 53°F**

**Current DD (as of July 23) calculated using the 1<sup>st</sup> crawlers as the biofix:**

Kern: 1930 DD, Tulare: 1820, Fresno: 1630

With 12 days of historically high temperatures during the 2<sup>nd</sup> and 3<sup>rd</sup> weeks of July, California red scale have been growing at their peak metabolic rate. This means that the time interval between generations is as short as it can possibly get. Forecasts are predicting a return to “normal” temperatures for early August, and this is accounted for in the prediction of the next phenological event (3<sup>rd</sup> generation crawlers). If you are trapping red scale males and crawlers and would consider sharing your data, this would help us to firm up our predictions for the upcoming generations of red scale. Please contact Greg Montez at [gregm@uckac.edu](mailto:gregm@uckac.edu) or call 559-646-6597. Degree-day calculations for CRS as well as weather summaries for selected weather stations are maintained on our website: <http://citrusent.uckac.edu/DegreeDay.htm>.

### Citricola Scale

The cool wet spring was very favorable for citricola scale reproducing, resulting in very high numbers of citricola scale eggs and nymphs at the start of this summer. Usually, extremely high temperatures, like those we have been experiencing recently, cause considerable mortality of the young citricola scale nymphs on the leaves. You should be monitoring scales by collecting 25 leaves from four evenly spaced rows (total of 100 leaves) in the orchard and counting the number of scales. Only count the live ones. The treatment threshold is 0.5 scales per leaf. Traditionally, chlorpyrifos has been the treatment of choice because a single treatment suppresses citricola scale for more than one season. However, we are very concerned that citricola scale may be developing resistance to chlorpyrifos. We have noticed that growers are treating with higher rates than they did a few years ago. We want to test this hypothesis by collecting citricola scales on leaves from around the San Joaquin Valley. We take scale-infested leaves, dip them in chlorpyrifos, and then wait 5 days to see how many survive. If you have a population of citricola scale that you have not sprayed yet, and would like to share some infested leaves with us, please call Greg Montez at 646-6597. He will need your name and phone number and a map to the orchard because we will do the leaf collection. Alternatives to Lorsban for citricola scale include Assail, Applaud, or oil. These treatments generally suppress scale for only one season. However, if your scales are becoming resistant to Lorsban, then Lorsban will also only suppress the scales for one season.

**Calendar Event:** A Citricola scale field day is planned for August 31 – we do not have a location yet.

## Citrus Peelminer

We have been able to catch citrus peelminer adult moths in pheromone traps when traps are placed in willows, oleanders and walnuts. Catches of moths in pummelos have been extremely low and so that monitoring technique still needs work. We have not seen any moth activity in navel oranges yet, nor have any been reported by growers who are monitoring blocks for us. We think we have seen 4 generations of larvae develop in the San Joaquin Valley so far. The first generation of larvae developed in willows and oleander, the second generation in walnuts, the third and 4<sup>th</sup> generations of larvae have attacked pummelos. In pummelo orchards, peelminer eggs have been hatching and larvae are appearing in mines, but the intense heat has killed a lot of the young larvae. The moths should be attacking susceptible orange varieties in the next two weeks (5<sup>th</sup> generation). However, this year, the fruit size is very small and so the moths may wait an extra generation before they attack oranges

If you have peelminer traps in your orchards, we need to know what you are seeing even if they are zeros, like many are seeing at this point. If you would like to place a peelminer pheromone trap in one or more of your orchards and/or update your orchards on our web site, please contact Greg Montez (646-6597). At this point, we only have the 2005 pheromone lures, but as soon as we get more effective lures we will make them available to you.

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For information or to subscribe or unsubscribe please send an email to [gregm@uckac.edu](mailto:gregm@uckac.edu) or call (559)646-6597

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