

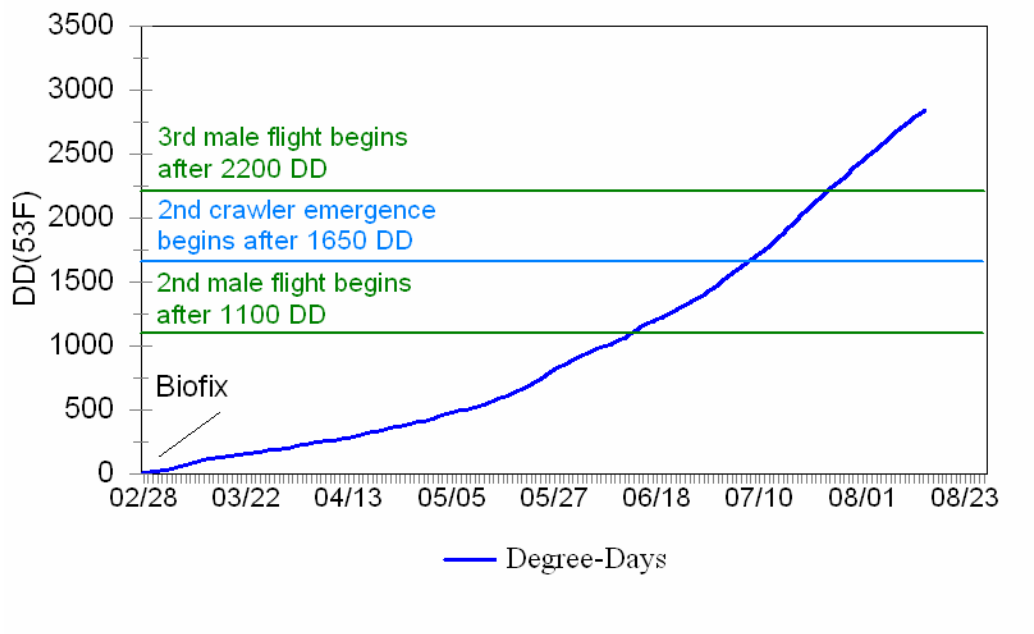
California Red Scale – Third Generation

| | 1st male flight | 1st gen. crawlers | 2nd male flight | 2nd gen. crawlers | 3rd male flight | 3rd gen. crawlers | 4th male flight (predicted) | 4th gen. crawlers | 5th male flight |
|-------------|-----------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------------------|-------------------|-----------------|
| Degree Days | biofix | 550 DD | 1100 DD | 1650 DD | 2200 DD | 2750 DD | 3300 DD | 3850 DD | 4400 DD |
| Kern | Mar 1 | May 9 | June 13 | July 3 | July 24 | Aug 7 | Sept 5 | | |
| Tulare | Mar 1 | May 16 | June 20 | July 3 | July 24 | Aug 14 | Sept 12 | | |
| Fresno | Mar 8 | May 16 | June 20 | July 10 | July 31 | Aug 14 | Sept 12 | | |

Current DD (as of August 15) – 2920 Kern, 2740 Tulare, 2690 Fresno

A much welcomed cooling trend has arrived after one of the warmest periods in Central Valley history. With temperatures forecast for the mid 90s for the remainder of the month, degree-day accumulations will slow somewhat as red scale move toward their fourth generation. During the fourth generation, you will see all stages of red scale occurring at the same time in any given orchard. Pheromone traps should be set out in early September to collect the fourth flight of males. CRS Degree-day calculations for various regions of the San Joaquin Valley are maintained on our website: <http://citrusent.uckac.edu/DegreeDay.htm>.

**Foothill Region Degree-Days 2005
California Red Scale**



Citricola Scale

Citricola scale is very heavy this year because of the mild spring and early summer. The July-August heat has done a good job of killing many of the 1st instars on the leaves on the outside of the trees. However, when you start with tens of thousands in a tree, killing many is not enough. August and September are the ideal time for estimating the population density of citricola scale in your orchard by counting the number of live scales per leaf or the percentage of infested leaves. Please join us on August 30 to learn more about citricola scale biology and sampling and to have a group discussion about control issues.

Two Sessions on Citricola Scale Management

Dr. Beth Grafton-Cardwell

University of California

Citrus IPM Specialist and Research Entomologist

Tuesday, August 30, 2005

Lindcove Research & Extension Center

22963 Carson Ave, Exeter CA

(559) 592-2408 (*call for directions*)

1. Citricola Scale Field Session

9:00-10:00 am

We will bring the mobile teaching lab to an orchard in order to teach the details of the lifecycle of the pest and it's parasites using microscopes and handouts. Field monitoring of citricola scale will be demonstrated including recommended treatment threshold densities for the fall and spring periods. Treatment options for citricola scale will be discussed. No advance sign-up is needed for this session.

Location: LREC field station orchard. Please watch for the signs for parking near the field location

1 hour of continuing education credit has been requested for this session.

2. Using Computers to Study Citricola Scale

11:00 am-12:30 pm or 1:30-3:00 pm

We will assist you with a computer module that uses text, photos, and videos to teach you about the lifecycle of citricola scale and the damage it causes to citrus. Each participant will have a computer to use and can work through the lesson at their own pace. Seating is limited, you must sign up to reserve a place in the class.

Location: Lindcove REC Conference Center

Sessions (sign up for just one): **11:00-12:30 pm or 1:30-3:00 pm**. Please contact Lois Strole at UC KAC to reserve a seat: 559-646-6545

1 hour of continuing education credit has been requested for this session.

Bean Thrips Monitoring Meeting

September 8, 2005

10:00 am - noon

Lindcove Research and Extension Conference Room
22963 Carson Ave., Exeter (call 592-2408 for direction)

Bean thrips adults can hide in the navel end of oranges during the winter months as fruit is being harvested. Bean thrips infestation of navels is an export issue for countries such as Australia and New Zealand. A program is in place in the San Joaquin Valley to detect bean thrips in citrus orchards using stickem-coated cards. This meeting will provide information on the biology and identification of the pest, the sticky card program detection program, and address regulatory issues.

- 10:00 a.m. Beth Grafton-Cardwell
Welcome, Meeting Objectives
- 10:10 a.m. Wally Ewart, President, California Citrus Quality Council
Status of the Australian Bean Thrips Pre-Clearance Program
- 10:25 a.m. Joseph Morse
Bean Thrips Biology and Identification
- 11:00 a.m. Panel Discussion on the Sticky Card Program & Inspection Issues
Kern Co.: Matthew Peet
Tulare Co.: Don Borges
Fresno Co.: Carol Hafner, Deputy Agricultural Commissioner/Sealer
- 11:20 a.m. 15-minute rotation between 3 monitoring stations
Fruit Cutting, Sticky Card Sampling, Microscopic Specimens

Citrus Peelminer

We are unsure of the degree-day model for citrus peelminer at this point. We think that peelminer has an upper developmental threshold, which means its metabolism will be overloaded and the insect will die when it gets very hot. We do know that the third flight of moths attacked the pummelos and grapefruit at the end of June, then the fourth flight began to attack oranges towards the third week of July. We are not sure exactly how many flights have occurred since then (a 5th and possibly a 6th), since the peelminer pheromone traps only attract low numbers of moths. However, from here on out the mining will increase, especially if the orange grove is located next to a crop such as cotton that is producing peelminer.

We need peelminer cooperators to check their pheromone traps once a week and to check their fruit for damage once a month and report their findings to us so that we can improve our understanding of citrus peelminer development in the San Joaquin Valley. To sample fruit for mines, use the attached sampling sheet, choose twenty trees at random in the orchard, and examine the fruit that is within reach for mining damage. Record how many trees out of twenty had any damaged fruit and how many trees had more than five fruit damaged. Also report the age of the mines (young or old). These data can be submitted through our IMS webpage at http://gis.uckac.edu/Peelminer/CalRef_Plmnr.htm, or emailed to gregm@uckac.edu (please reference your block's record number), or called in to Greg Montez at (559) 646-6597. If you have questions about sampling for peelminer infested fruit and would like help, call Greg.

The Citrus IPM Newsletter is published by the University of California Citrus Entomology Laboratory at the Kearney Agricultural Research Center by Dr. Beth Grafton-Cardwell. For information or to subscribe or unsubscribe please send an email to gregm@uckac.edu or call (559)646-6597

Citrus Peelminer Fruit Sampling 2005

Your Name: _____

Block Name: _____ Date Sampled: _____

Citrus type (circle one): grapefruit, pummelo, navel, Valencia, mandarin, lemon, other

Citrus Variety: _____

Sampling Method: look at 20 trees in the orchard and examine all of the fruit you can get to in the inside, lower third of the tree. Note how many of the fruit in each tree have mines.

| Tree Number | Does this tree have any mined fruit? (Yes / no) | Does this tree have > 5 fruit with mines?(Yes / no) |
|-------------|-------------------------------------------------|-----------------------------------------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |
| 17 | | |
| 18 | | |
| 19 | | |
| 20 | | |

Number of trees with mined fruit: _____

Number of trees with > 5 infested fruit: _____

Typical mine size: Young, Old, Mixed (circle one)

Typical health of larvae (circle one): healthy, dead, emerged, I don't know

These data can be submitted through our IMS webpage at

http://gis.uckac.edu/Peelminer/CalRef_Plmnr.htm,

If you don't plan on entering the data into the computer, then please

FAX this sheet to: Janet: Lindcove FAX 559-592-5947 Greg: Kearney FAX 559-646-6593

Phone: Sampling questions: call Janet (559-592-5910) – Computer or sampling questions call Greg (559-646-6597)