

Peelminer

Kern County Cooperative Extension and the DANR Citrus IPM Workgroup held a morning session on February 1, 2001 in Bakersfield on the topic of what is currently known about peelminer. Marta Guillen (UC Riverside Entomology) presented her research conducted in the Coachella Valley and Dave Headrick (Cal Poly San Luis Obispo) presented his work of the past few months conducted in the San Joaquin Valley.

What we do know about peelminer:

San Joaquin Valley growers experienced an outbreak of this pest during the 2000 field season. Most orchards experienced 1-10% fruit damage by the peelminer. However, some orchards experienced up to 70% damage. The peelminer attacked all varieties of citrus but was especially heavy in some young Fukomotos and grapefruit. In previous years, this pest was found in low levels in grapefruit in Kern County. There are many species of peelminer and they have a range of alternate hosts. This species seems to be attacking oleander and avocado as well as citrus. This pest is difficult to control with pesticides because it has so many generations (9-10/year) and because it is difficult to predict when the eggs will be hatching. In the Coachella outbreak of 1995, parasites were more effective in reducing its numbers than pesticides. The best recommendation at the moment is to get rid of shiners and culls that are infested with peelminer and so reduce the population in your orchard.

A color handout is available from your Kern or Tulare County farm advisor, or can be downloaded over the Internet from <http://plant.cdfa.ca.gov/biocontrol/citrus/citrusminers.html>

What we do not know about peelminer and need to study this coming year:

What species of *Marmara* are we dealing with?

Is it invasive or an outbreak due to changes in pesticide practices?

Can *Marmara* develop in fruit that is on the ground?

How can we better monitor for the pest?

How far can the moths fly?

Could a pheromone trap be developed?

What would be the timing and efficacy of pesticide treatments?

What is the treatment threshold?

Are orchards with especially high densities correlated with certain pesticides or with certain alternate hosts of *Marmara*?

What parasites are present in the San Joaquin Valley and how can we augment their activity?

Is the 2001 field season likely to experience an outbreak of this pest?

How can you help?

In order to prepare for the next field season, we need to quickly answer the question of which parasites are in the San Joaquin Valley before all the fruit is harvested. If you have a citrus orchard that has not been harvested yet and has peelminer infesting the fruit, please contact me, Beth Grafton-Cardwell, at 559-646-6500, email to bethgc@uckac.edu or Rebecka Striggow, 559-646-6597, becky@uckac.edu. We would like to come out to your orchard and survey the fruit for the percentage of fruit infested with mines and sample the parasites.

Cottony cushion scale

Cottony cushion scale problems have diminished since we first disrupted the vedalia beetle with insect growth regulators (Knack, Esteem, Applaud) in 1998. However, since we are continuing to use Esteem for red scale and starting to use Admire for glassy-winged sharpshooter (it also disrupts vedalia) you should continue to watch for cottony cushion scale outbreaks. The vedalia beetle is far better at controlling this pest than pesticides. If you have cottony cushion scale in a block, and do not have vedalia, now is the time to release some beetles into the block. A small number of beetles (25 adults) released into a block in February, will have time to expand and clean up cottony cushion scale problems during March and April. We need to get the cottony cushion scale problems cleaned up before we begin using Esteem in May-July.

If you need vedalia beetles, please contact my technician Ping Gu (559) 646-6597 or ping@uckac.edu. Be prepared to give us a detailed map of where your citrus block is located. We would like to collect some cottony cushion scale from your block to help feed our vedalia colony. We would also like to help you assess whether your block already has sufficient natural numbers of vedalia that releases are not necessary.