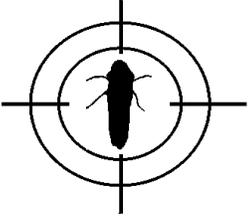


**Kern-Tulare**

# **GWSS Update**



*A project of the Glassy-winged Sharpshooter Task Force of Kern and Tulare Counties. Participants: Agricultural Commissioner Offices of Kern and Tulare Counties, California Department of Food and Agriculture, University of California-Cooperative Extension, U.S. Department of Agriculture (APHIS and ARS Divisions).*

**Contact:** Don Luvisi, project coordinator, (661) 868-6226 / [daluvisi@ucdavis.edu](mailto:daluvisi@ucdavis.edu)  
**Web sites:** [www.kernag.com/kpp.kpp.htm](http://www.kernag.com/kpp.kpp.htm) and [www.co.kern.ca.us/farm/farm.htm](http://www.co.kern.ca.us/farm/farm.htm)

**July 21, 2001**

## **Pierce's Disease monitoring imperative**

Now is the time to begin a thorough search for summer symptoms of Pierce's Disease (PD) in local vineyards, particularly in areas where GWSS is present.

Typical leaf scorch symptoms have been observed on infected vines due to water stress imposed by past heat spells.

Isolated cases of PD have been found in North Kern, the General Beale Pilot Project and Mettler areas. Because the amount of inoculum in the county is thought to be low, it is imperative that we identify and remove any sources in order to keep the GWSS population free of the bacterium that causes PD. This is critical, given that once GWSS acquire the bacterium, it is capable of vine-to-vine spread.

As an extension of the research in the pilot project, CDFA, USDA and UC Cooperative Extension are currently surveying vineyards for symptoms of PD. Vines with questionable symptoms will be sampled and sent to a diagnostic lab for analysis.

Any survey work outside of the pilot project relies heavily on vineyard managers and PCA participation. If PD is suspected in your vineyard, please call the UCCE office at (661) 868-6223 for more information regarding sampling protocol and lab analysis.

*—Jennifer Hashim, UCCE Viticulture Farm Advisor*

## **Monitoring results encouraging for July**

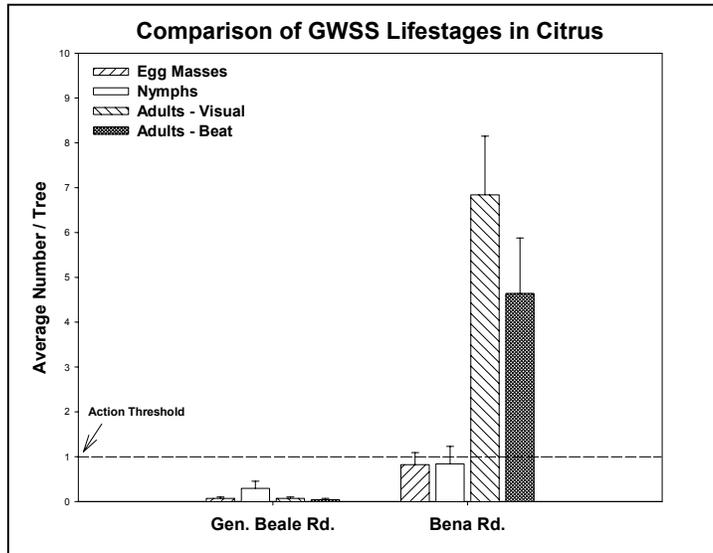
Monitoring efforts by USDA personnel in the General Beale Road area citrus groves are encouraging. Only eight of the 33 groves within the pilot project area have detectable levels of GWSS, and seven of those average less than 0.1 adults per sample unit. In the sampling transects through those groves, often only one adult is found per 10 trees.

These results suggest that the pilot project management program has significantly reduced the resident population of GWSS in the General Beale Road area.

Sampling efforts in both the General Beale and Bena Road areas show that the first true generation of GWSS reached the adult stage about two to three weeks ago, and those adults are beginning to lay egg masses.

Monitoring the development of various life-stages of GWSS plays a critical role in determining when applications for control should be timed. For example, over-wintering adult stages began laying eggs in mid-March. Thus, the foliar applications made in the pilot project in mid- to late February, and systemic applications in mid- to late March, seem to be well timed. Data from extensive sampling supports these conclusions.

The graph at left shows the average number of each life-stage of GWSS



averaged across all citrus groves in the General Beale and Bena road areas, respectively. Overall, the graph shows that all life stages within the General Beale Road area are below the action threshold.

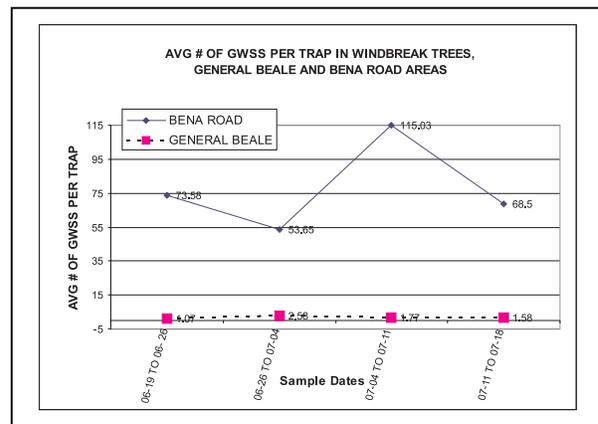
In the Bena Road area, the graph shows that average nymph numbers are near the action threshold, while adult numbers exceed that threshold. Applications are needed in the Bena Road area to control further increase of that population.

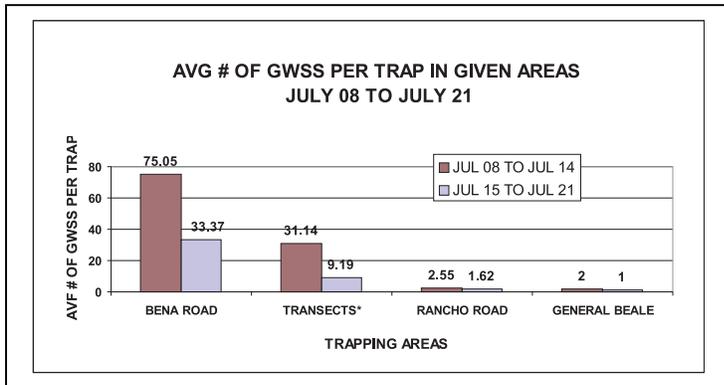
—USDA-APHIS

## Comparing GWSS trap captures in windbreaks of General Beale and Bena Road areas

The graph at right represents the average numbers of GWSS trapped in windbreak pulley traps during the weeks prior to, during, and after the windbreaks of the General Beale Road area were treated. Both the Bena Road and General Beale Road areas are shown, but due to the high number of GWSS in the Bena Road area windbreaks, it is hard to see any variation in the data from the General Beale Road area.

The graph below shows the average number of GWSS trapped in all four areas currently monitored





\* *Transect areas are the series of sticky traps between the areas of Rancho, Beale and Bena Roads.*

low, the number of GWSS nymphs trapped in this one particular trap range from 50 to 322.

The general reduction in trap counts during the July 8–15 period could be attributed to the lower day and night temperatures of this past week.

—CDFA

for the pilot project. It is interesting to note that the number of GWSS trapped in all areas went down during the last week. This could be a transition between the first and second generation of adults.

Of special note is one trap in the Rancho Road area that has captured a high number of GWSS first and second instar nymphs (which cannot fly) for the past few weeks. While numbers of GWSS in the Rancho Road area are relatively

## Treatments to begin in Bena Road area

Pre-treatment sampling efforts in the Bena Road area show that GWSS numbers are high in some citrus blocks in that area.

Ten of the 43 citrus blocks within the Bena Road area fall below the action threshold of an average of one adult per tree, and will not be treated. Indeed, many of those blocks may have already been treated for GWSS or other insect pests.

Sampling shows that adult numbers range from zero to a high of approximately 32 adults per sample unit in that area. Nymphs found during sampling were mostly in the first and second instar, and predominantly found on flush growth within the plant canopy as opposed to foliage on the outside of the tree. Thus, applications that provide thorough coverage and penetration of the canopy should knock down both adults and nymphs.

Field observations are showing that adult GWSS are very active and flying between trees even as early as 8 a.m. in the morning.

Several growers are scheduling their applications for this coming Monday evening, treating at night, to limit GWSS flight while applications are being made.

We encourage growers to treat at night if at all possible because of the cooler temperatures.

A treatment plan has been put together that will organize applications in such a fashion as to hopefully limit movement outside of the area while applications are being made.

Growers are asked to contact Russel Carlson to coordinate and plan their applications, since other growers are treating in the area. This methodology appeared to work well in the General Beale Road area.

—USDA-APHIS scientists

###