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).*

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## Search for almond leaf scorch begins in pilot project

An analysis of sticky-trap counts in almond groves in the General Beale Road Pilot Project shows a low but consistent population of GWSS. We are now evaluating whether almond leaf scorch is present in almond groves in the project area.

On Wednesday, Sept. 12, a team of CDFA and USDA staff members surveyed for almond leaf scorch in the General Beale Road area. All almond trees in the area were surveyed. The team visually observed two trees on each designated row as part of the sampling protocol. If symptoms of leaf scorch were present, samples of the leaves were collected. A total of 61 samples were collected and will be tested at a CDFA lab. During the previous week, samples were also collected from an almond orchard in McFarland. Those samples will be tested as well.

CDFA staff, located at the Kern County Oswell Facility, is part of the Pierce's Disease Control Program. Pierce's Disease and almond leaf scorch develop from the same bacterium, *Xylella fastidiosa*. The symptoms in the leaves are therefore similar in both almonds and grapes where Pierce's Disease is found.

*— CDFA-Pierce's Disease Control Program*

## Timing treatments in the Bena Road area

Field sampling crews will be returning to the Bena Road area within the next two weeks to more accurately determine the GWSS population structure to aid us in decision-making.

Previous sampling efforts showed that most of the nymphs were still in the first and second instar. They were predominantly found within the plant canopy on sucker growth, more so than on foliage flush on the outside of the canopy. Field observations have shown that, as GWSS mature to the third or fourth nymphal instar, they move to the external canopy and feed on younger foliage. Timing of foliar applications can use this biological trait to best reduce and control GWSS.

Once USDA field sampling crews have sampled all the citrus groves within the Bena Road area, we will have a much better idea of population structure and population densities in each grove. This

information will be used to determine the best time to initiate the second foliar treatment planned for that growing area. Further, this information will establish whether or not a grove needs to be treated, and if so, establishes the pre-treatment densities for looking at treatment efficacy.

If temperatures hold as they have over the last few weeks, we anticipate beginning treatments in the Bena Road area during the first or second week of October. This will accomplish two things: 1) further reduce GWSS numbers in that area before they begin to over-winter, and 2) assist growers, we hope, in moving citrus fruit from that area during harvest.

*— USDA*

## Some areas in General Beale Road area remain problematic

Sticky traps in the General Beale Road area are capturing very few GWSS from citrus. However, a few grape locations are still capturing anywhere from five to 10 and, in one case, up to 25 adults per trap per week.

Field sampling crews are sampling those locations to determine if GWSS numbers require an insecticide application. Two grape vineyards have been identified with GWSS adults and nymphs. We will soon be contacting growers asking them to make those applications.

The goal of those applications is to reduce those populations to much lower levels, prevent potential movement back into citrus and reduce the potential spread of Pierce's Disease by this vector.

View sticky-trap map online. Growers can check the Kern Ag Web site (www.kernag.com/kpp.kpp.htm) to view past and current sticky trap maps for the pilot project area. The sticky trap map can be a useful tool in focusing attention on problematic areas, but direct sampling should be the deciding factor before management decisions are made.

*— USDA*

## Tulare County to survey quarantined areas

The Tulare County Agricultural Commissioner/Sealer's Office and the California Conservation Corps will begin another full survey of our three quarantined areas on Monday, Sept. 17.

We will start in Porterville, the site of our largest infestation. This will be followed by Magnolia, with one infested grove that has received treatment for GWSS. We will then survey Terra Bella, where we hope to have eradicated GWSS.

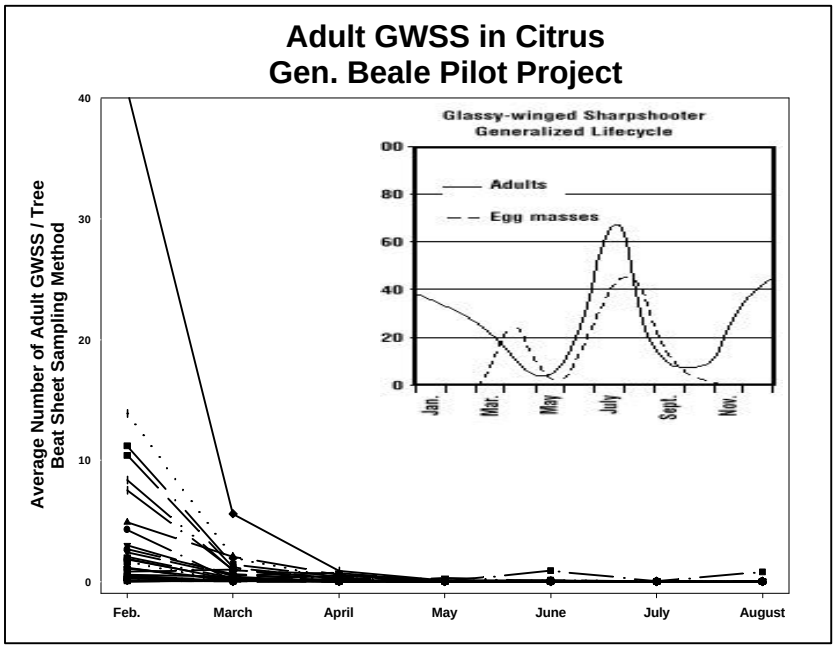
The countywide survey program for GWSS has been completed. No new infestations of GWSS have been detected outside the present quarantined areas.

Recent *Xylella* surveys have turned up several almond orchards in the Pixley/Teviston area that show classic symptoms of almond leaf scorch. Samples have been taken in an effort to begin documenting its distribution in Tulare County.

*— Tulare County Agricultural Commissioner's Office*

## GWSS numbers decline sharply in pilot project

Visual and beat sheet samples are being collected from each citrus grove in the General Beale Road Pilot Project. Data indicates that GWSS adults, nymphs and eggs are at very low levels due to the treatments implemented in the pilot project.




With the exception of two groves, all of the citrus groves are at undetectable population levels, using the two sampling methods. Those two groves are slightly above zero population levels, averaging anywhere from 0.6 to 0.03 adults per tree. This data is encouraging, suggesting that the knockdown foliar treatments prevented extensive spread of the adults and that the Admire® treatment was very effective at stopping nymphal development.

The graph above right shows the average number of adult GWSS per sample (tree) collected using the beat sheet sampling method for all citrus groves within the General Beale Road area.

The graph shows that GWSS numbers were significantly reduced from their initial population densities over a two-month period. This rapid reduction in numbers is most likely due to the foliar treatments rather than the application of the systemic insecticide. Admire applications began on March 24 and were mostly completed by the first week in April. However, the systemic insecticide did prevent GWSS numbers from increasing to higher population levels.

An idealized graph (inset) of GWSS populations over an entire year shows two population peaks (or generations) for adults: from May through September and the over- wintering population from November through March. The graph of adult GWSS in the pilot project area shows no increase in adults during that first generation of the year, and we suspect that the over-wintering population will be just as low or lower in the General Beale Road area. — *USDA*

## Staff changes made at CDFA

Mark Clifford, associate biologist, has left his position with CDFA-Pierce's Disease Control Program to continue his education.

David Elms has accepted the position of associate biologist and started work Monday, Sept. 10. He will be relocating to Bakersfield and will have the responsibility of supervising the CDFA staff at the Oswell facility. Any concerns and/or questions can be directed to Elm, either at the office or on his cell phone at (661) 301-8243. This was Clifford's previous phone number but please note the number has been changed to a local number.

Terrance Lorick also has started to work with CDFA staff. He will be based in Fresno and will occasionally come into Bakersfield for various projects.

*— CDFA*

## Citrus Bulk Movement meeting set

A meeting of the Citrus Bulk Movement Subcommittee will be held Sept. 28 at the Kern Agricultural Commissioner's Office in Bakersfield. The meeting will run from 10 a.m. to noon.

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