

July 30, 2004

Kern/Tulare

GWSS Update



A project of the Glassy-winged Sharpshooter Task Force of Kern and Tulare Counties. Participants: Agricultural Commissioner's 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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Kern's trapping program represents front line of defense against GWSS

Over the next two weeks, David Elms and his three-member monitoring crew will check every one of the 2,850 yellow sticky traps they have placed across 63,000 acres in Kern County.

They'll be looking to see how many glassy-winged sharpshooters (GWSS) appear on the bright yellow rectangles. What Elms and his team find on the traps helps the U.S. Department of Agriculture, the Kern County Agricultural Commissioner's Office and local GWSS treatment coordinators determine whether applications are needed to control the area's sharpshooter populations.

"Our trapping and monitoring program is a key component of the GWSS Area-wide Management Program," says Elms, an associate agricultural biologist with the California Department of Food and Agriculture (CDFA). "Trap finds provide essential feedback to program managers and keep growers and all parties informed on the progress of the program."

"The trapping is absolutely crucial to the entire GWSS program," agrees Larry Liggett, the GWSS field treatment coordinator for Kern County's Highway 65 area. "It allows us to identify problem areas and enables us to make good decisions sooner to minimize the spread of the insect."

Elms and his CDFA crew collect data from GWSS traps in two areas. The largest area, covering 50,000 acres, runs along Highway 65 from Seventh Standard Road just north of Bakersfield to the border with Tulare County. The area is considered GWSS-infested. Grape and citrus shipments originating there are scrutinized to ensure they don't transport the pest to other locations. The 2,200 GWSS traps along Highway 65 are located in citrus groves and vineyards. CDFA began trapping for GWSS here in 2002, after area growers reported finds of the pest on vineyard hopper tape.



The second area monitored by CDFA encompasses the General Beale Road Pilot Project, which covers 13,000 acres south-east of Bakersfield. Elms and his crew service 650 GWSS traps among a variety of permanent crops, including citrus, grapes, stone fruit, cherries, almonds, jojoba and windbreaks.

In both areas, traps are set up on a one-quarter-mile grid. Each trap is checked on a two-week cycle.

Summer findings. So far this summer, Elms and his crew are finding slightly higher levels of GWSS, as expected. The pest's numbers increase in warm weather.

"GWSS numbers have increased steadily in the General Beale Pilot Project through the summer," says Elms, who has worked with CDFA's Pierce's Disease Control Program for the past three years. "However, they're still fairly low-level populations, both in the pilot project and along Highway 65."

The pilot project was the setting for
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CDFA's David Elms (right) watches as monitoring assistant Ryan Funk enters GWSS data from a yellow sticky trap into a portable unit along Highway 65 in Kern County. (Photo: Catherine Merlo)



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Trapping program represents front line of defense against GWSS

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Kern County's first coordinated attack against GWSS, beginning in early 2001. Foliar sprays and systemic treatments successfully brought down GWSS populations to nearly zero, after earlier counts of hundreds per trap. The residual effect of those earlier treatments has kept GWSS populations low, and only limited applications have been needed in the last year or two.

According to Liggett, only 18 of the 2,200 traps in the Highway 65 area have captured any GWSS in the last week. Liggett is working with a few area citrus growers to treat about 800 acres in the next couple of weeks with the foliar, Assail® and Lorsban®. Earlier this spring, citrus growers treated about 1,200 acres in the Highway 65 area with the two foliar.

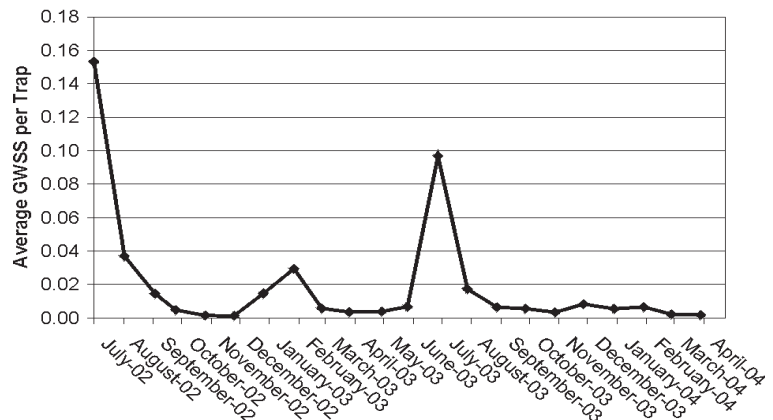
As funds have tightened, the treatment decision protocol has become more stringent, Elms says. The appearance of GWSS on a trap now often requires additional survey work rather than an immediate treatment. Elms also has seen his crew numbers drop from a high of 12. Today, his three-member crew works four days a week, 10 hours a day. Each trapper puts about 1,500 miles a month on his vehicle as he visits trap locations.

Reading the traps. The GWSS yellow sticky traps stand out like fluorescent beacons against the dark green foliage of citrus trees and grapevines. But high visibility to humans is not why the sticky traps are yellow. Studies have shown that GWSS are attracted to yellow, so researchers chose the color for the traps. When GWSS come in contact with the trap's sticky surface, they adhere to it and are unable to escape.

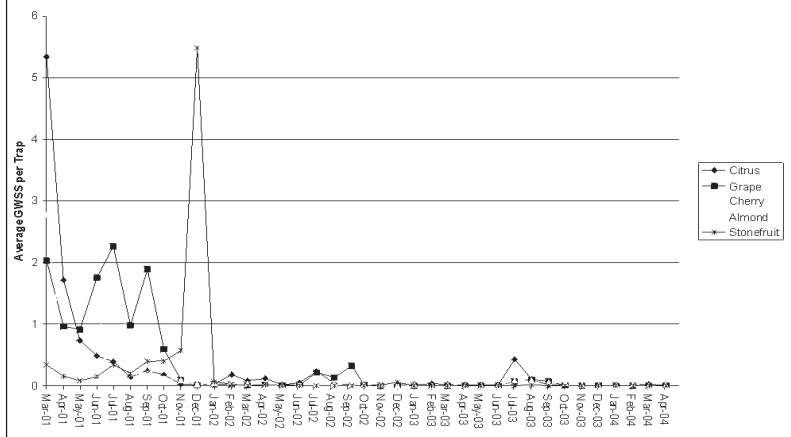
The traps are placed on 7-foot bamboo poles over a quarter-mile grid. Using a portable scanner, one of Elms' crew records the bar codes found on each bamboo pole. This tells him the exact location of the trap. He then enters the number of adult GWSS found on the trap into a hand-held Time-Wand, a small unit about the size of a deck of cards. The old trap is then replaced with a new one.

At the end of the day, the trapping information is downloaded into a computer at

Highway 65 - Citrus - 2002-2004



General Beale - All Crops - 2001-2004



These graphs reflect GWSS trap counts in the Highway 65 and General Beale Pilot Project areas. Recent low pest levels "demonstrate the successes of the GWSS area-wide management strategies," says Elms.

the Arvin Biological Control Facility. That's the site of Elms' office, although he spends about 75 percent of his time traveling in his Ford F-150 pick-up. The data is then uploaded to CDFA offices in Sacramento. There, CDFA's Rosie Yacoub uses the data to generate the GWSS maps found at <http://www.cdca.ca.gov/phpps/pdcp/gwMaps/gwmaps.htm>.

"With a minimal number of people, we're able to quickly identify problem areas for GWSS," Liggett says. "Otherwise, we would have to have massive numbers of people looking among the trees for the sharpshooter. The trapping program is very cost-effective and a great return on investment."

— Catherine Merlo

Correction: PD/GWSS meeting

A joint meeting of CDFA's Pierce's Disease/Glasswinged Sharpshooter Board and the Pierce's Disease Advisory Task Force will be held Monday, Aug. 2 at the Red Lion Hotel in Sacramento.

Last week's GWSS Update reported the wrong weekday for the meeting.