September 6, 2002

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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New GWSS infestations found in Tulare County

We continue to find new infestations in scattered portions of Tulare County.

The latest finds occurred at the Odwalla Juicing facility in Dinuba and K Street Nursery in Tulare. Both localities were detected through our "High Risk" trapping program.

The High Risk program identifies commercial, transportation and residential sites where the perceived risk for the introduction of GWSS is thought to be high. These include major pathways, labor camps, packing facilities, bulk fruit receivers, nurseries and newly landscaped areas.

Subsequent delimitation surveys at Odwalla showed that all life stages of GWSS were present in the ornamentals (crape myrtles and oleanders) on the property and in the next door neighbor's garden (citrus and okra). Both properties have been treated to eliminate the possibility of further spread.

The source of the GWSS would appear to be field-run citrus shipped directly from Ventura County. Our quarantine staff is presently working with Odwalla to prevent further introductions of GWSS into the area.

The nursery site in Tulare was treated by the nurseryman. A resurvey of the nursery and adjacent properties has found no additional evidence of GWSS.

The southeastern infested portion of Tulare County has not expanded further north or west. However, the three proposed quarantine areas continue to fill in. Ultimately, we expect these three areas to become one large one, from just north of Strathmore to the County line. Populations are still very low throughout the area except in groves in the northeast corner of Porterville and a few groves south of Ducor.

Hopper Tape an excellent tool. To help identify new areas where GWSS is established, we are asking for the help of the growers here in Tulare County. "Hopper Tape" has been shown to be an excellent tool in locating low level infestations of GWSS. The project in Kern County has offered to make "Hopper Tape" available to us, and we will help any grower who is interested in getting some (especially those of you who are growing grapes in close proximity to citrus).

If you think you have found GWSS, we need to know about it! Only by accurately identifying infested areas can we make reasonable decisions about how to proceed in the future.

In the case where you have a captured specimen, GWSS on sticky tape or in traps, please contact your local agricultural commissioner's office. For those in Tulare County, your contacts for GWSS identifications are Dennis Haines or Daniel Bigham at (559) 685-3323.

— Dennis Haines, Tulare County Agricultural Commissioner's Office

Parasitoid research and releases continue; new species released in Kern and Riverside counties

To date in 2002, the combined statewide releases of parasitoids by the Bakersfield and Riverside GWSS biocontrol operations have totaled 250,000.

Of these, 207,000 were the new species from southeast Texas, *Gonatocerus triguttatus*. At this rate, the total of *G. triguttatus* released in 2002 will more than double last year's total of 112,000.

Recoveries of *G. triguttatus* have been made at eight locations in Southern California, indicating that this species can survive the hot summers in California.

The search for parasitoids that survive through the winter will begin in earnest as soon as new GWSS egg masses

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— Dennis Haines, Tulare County Agricultural Commissioner's Office

Factoid: Bar-code technology tops manual entry

Studies show that entry and read error rates when using automatic data collection and bar-code technology are approximately one error in 1 million characters, versus one error in every 300 characters in manual entry.

Parasitoid research and releases continue; new species released in Kern and Riverside counties

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are found next spring. Recoveries of parasitoids that have survived the winter are a strong indication that the new species has become permanently established, adding to the complex of natural enemies that attack GWSS.

New GWSS parasitoid species. This past spring, a new species of GWSS parasitoid, *Gonatocerus fasciatus*, was collected in Louisiana by University of California researchers. This species was sent to the quarantine facility at the University of California in Riverside to determine if was safe for release into California. It was recently permitted for release. *G. fasciatus* is now in rearing at both the Bakersfield and Riverside facilities. The first releases of this species were made during the past week in Kern and Riverside counties.

The addition of *G. fasciatus* may increase parasitism of GWSS eggs earlier in the season as this species was collected during a cool part of the spring in Louisiana when no other parasitoid species were present. This suggests that it may be better adapted for cool season activity.

A field cage trial in citrus was recently completed at the Bakersfield facility on the reproductive potential of the exotic *G. triguttatus* compared to the native species of *G. ashmeadi* and *G. morrilli.*

G. ashmeadi produced the highest number of progeny of 24 wasps per female, as compared to 18 for *G. triguttatus* and 16 for *G. morrilli,* although these differences were not statistically significant.

A direct competition treatment showed that *G. triguttatus* and *G. ashmeadi* produced about equal numbers of wasps per female, suggesting that in the field the presence of the native *G. ashmeadi* should not deter the establishment of the exotic *G. triguttatus*.

— Bakersfield and Riverside biological control facilities

Summer symptoms of PD visible across all varieties

Now is an excellent time to survey vineyards for summer and fall symptoms of Pierce's Disease (PD). Because there is little to no growth of the grapevine canopy, one can easily see differences in vigor, leaf color and overall vine health.

During the last few months, our office has been conducting a PD survey effort across much of the southern part of Kern County. The survey effort has provided us with important details about disease development. All commercial grape varieties are susceptible to PD, but we have observed differences in the timing of symptom development between varieties.

In a single season, leaf and petiole drying can occur as early as late June in Red Globe and in very young vines (less than two years old). In contrast, other varieties, such as Flame Seedless, Crimson Seedless, Thompson Seedless and many winegrape varieties, show detectable signs of PD around mid to late August in Kern County.

There are also differences in the number of seasons it takes for visible symptoms to occur. For this very reason, we have observed an increase in symptom development among multiple varieties that were not present at detectable levels last year. It is important to note that it is likely that these vines were infected last year or two years ago but it took an extra year or two for vine health to decline to levels easily observed during a field survey.

Currently, the only tricky part of surveying is distinguishing between vines with PD-like symptoms and those with grapevine measles or sulfur burn. In any case, our ongoing survey efforts and the efforts of growers and PCAs have proven that PD vines are out there and must be spotted and removed.

If you have any questions regarding PD identification, sampling protocol and/or lab analysis, or would like more information about how to participate in this year's PD project, which provides no-cost monitoring of vineyards by a crew of trained personnel on ATVs, please call the UCCE office at (661) 868-6223.

— Jennifer Hashim
UCCE Viticulture Farm Advisor

Kern County to adopt bar-code system for GWSS traps

The Kern County Agricultural Commissioner's office will adopt a bar-code system for GWSS trap data collection. Working in harmony with CDFA's current bar-code operation, Kern expects to deploy its system as early as next week.

CDFA now collects all of its GWSS trap data by bar-code system in the section of Kern County north of Seventh Standard Road.

Kern County will use the system in the area it monitors, which is south of Seventh Standard Road.

First used in the General Beale Road Pilot Project, the bar-code system has proven to be a fast, easy and accurate data entry method for collecting GWSS trap information.

— Kern County Agricultural Commissioner's Office