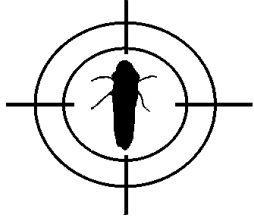


Kern-Tulare

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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Dormant application of Surround®

Observations indicate that GWSS move in and out of grape vineyards from adjacent crops during the dormant season. Some of these adults could possibly be infected with PD, and there is the possibility that dormant vines could be infected from GWSS feeding.

Research is currently being conducted on this. However, an ounce of prevention is worth a pound of cure. Surround® has been shown to be effective in reducing GWSS populations in vineyards. After pruning, a Surround treatment should be applied to vines in areas infested with GWSS, and especially those vineyards that have PD-infected vines.

— *Don Luvisi*

Vineyard weed control serves as a key component in Pierce's Disease control program

Although operations in the vineyard have slowed during the dormant season, it's not too early to begin thinking about floor management and the importance of weeds as hosts to both Glassy-winged sharpshooter (GWSS) and the bacterium that causes Pierce's Disease (PD).

Research supported by the Kern/Tulare PD/GWSS Task Force and conducted by UC Berkeley entomologist, Dr. Alexander Purcell, and his research assistant, Tina Winstrom, has shown that weeds collected from Kern and Tulare County vineyards in 2001 host populations of the bacterium that causes PD.

Whitestem filaree, bermudagrass, common cocklebur, marestail, annual bursage and common morning glory are among the systemic hosts of the PD bacterium. There is also some indication, based on preliminary results, that cheeseweed, quinoa, prickly lettuce, common sowthistle, wild sunflower, purple nutsedge and watergrass are also systemic hosts. In addition, many of these weeds are probable feeding hosts for GWSS.

Weeds must be removed both within and surrounding the vineyard. Proper weed management includes controlling stands of weeds around irrigation equipment, ditch banks and buildings. Remember, inoculum reduction/weed control is a long-term project and should begin immediately.

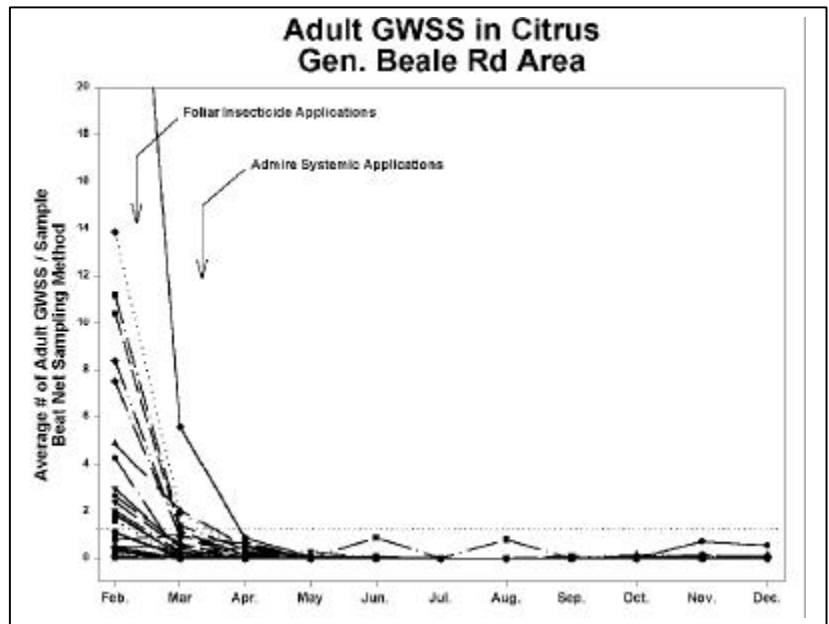
Please note that the CDFA official host list for GWSS can be found online at <http://pi.cdfa.ca.gov/pqm/manual/454.htm#appendixa>.

— Jennifer Hashim, UCCE Viticulture Farm Advisor

GWSS numbers register very low in pilot project area

USDA field crews continued to sample citrus during December, finding very few adult GWSS. No GWSS eggs or nymphs were collected from citrus within the pilot project area, indicating that adults comprise the predominant over-wintering stage.

The graph shows the average number of adult GWSS collected from each citrus block. With the exception of eight groves, GWSS were at undetectable levels using our standard beat net sampling method. Of those eight groves, densities ranged from



0.03 to 0.08 adults per sample in six groves sampled. This equates to between one and three adults collected in 40 individual tree samples, collected across those 160-acre groves. The remaining two

groves showed averages of 0.14 and 0.55 adults per sample unit, equating to a total of six and 22 adults, respectively, collected across 40 individual trees sampled.

The densities of GWSS adults reported above are significantly lower than those we have seen over the past year. There is further evidence to suggest that over-wintering mortality is driving that population even lower. The citrus grove with the highest levels of adults in November has shown lower numbers in December. We will continue to monitor this situation to determine whether the trend holds through January and February.

The absence of eggs and nymphs, and the very low numbers of GWSS adults is encouraging, suggesting that controlling the pest in the second year of the pilot project may be less challenging than initially anticipated. However, recent data showing the localized presence of GWSS adults in stonefruits, and historical data showing early spring presence in windbreaks, indicate that we must remain vigilant in monitoring GWSS across all host plants in the project.

— *USDA Entomologists*

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