

August 20, 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 County's yearly PD monitoring and control project set for late August

The 2004-2005 Pierce's disease (PD) monitoring and control program is scheduled to begin during the last week of August. We will reexamine more than 200 vineyards selected for and surveyed in 2002 and 2003.

The vineyards surveyed are located within the seven distinct zones of the cooperative area-wide pest management program of the GWSS project. The zones are: General Beale, North/Bena Road, South A, South B, Central, West and Highway 65/Delano.

The total acreage surveyed within the project was calculated at approximately 4,000 acres and represents roughly 5 percent of the total bearing grape acreage in Kern County.

Last year's survey results indicated the majority of infected vines were located within the General Beale and Northern areas. A dramatic reduction in the incidence of disease, however, was seen in the General Beale area from the 2002 to the 2003 season.

It was concluded that the reduction



UCCE researchers and staff will survey more than 200 Kern County vineyards in late August, looking for signs of Pierce's disease. (Photo: Jennifer Hashim)

was associated with the area-wide GWSS reduction program, combined with pulling and replanting diseased vines. It will be interesting to see if the downward trend in General Beale continues through this year and if the other areas surveyed remain at a low level of disease.

Our preliminary survey efforts in the
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Kern/Tulare GWSS Task Force to meet Sept. 15

The Kern-Tulare Glassy-winged Sharpshooter Task Force will meet Wednesday, Sept. 15, 2004, from 10 a.m. to 12 noon at the Kern County Agricultural Commissioner's Office in Bakersfield.

The meeting agenda:

- I. Tulare County GWSS Update - Area-wide Coordinators
- II. Kern County GWSS Update - Area-wide Coordinators
- III. Statewide Update - Roger Spencer, CDFA
- IV. USDA Report - Lloyd Wendel, USDA
- V. Bio-control Update - David Morgan, CDFA

VI. Bulk Grape and Citrus Movement Update - Kern/Tulare Counties

VII. Upcoming Meeting Announcements

The Kern County Agricultural Commissioner's Office is located at 1001 South Mount Vernon Avenue in Bakersfield.

For more information, contact the Kern County Agricultural Commissioner's Office in Bakersfield at (661) 868-6300 or the Tulare County office at (559) 685-3323.

To receive the Kern/Tulare GWSS Update newsletter, contact:

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Special thanks

A special thanks to the California Table Grape Commission and the GWSS Task Force of Kern and Tulare Counties for their support of this newsletter.



Kern County's annual PD monitoring and control project set for late August

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Arvin and Lamont area have indicated that summer symptoms of PD (marginal leaf scorch and persistent petioles) have been present in mature vineyards since the middle of July. So, this is an excellent time of year to survey high-risk areas, since canopy growth has slowed, allowing one to easily see differences in vigor, leaf color and overall vine health.

If you would like to have the CDFA Plant Pathology Lab in Sacramento test your samples for the presence of *X. fastidiosa*, you may bring them to our office to be processed free of charge. We are located at 1031 South Mount Vernon Avenue in Bakersfield. Our phone number is (661) 868-6200.

New sampling device. In addition to the PD monitoring project, another component has been added to this year's program. Our office will be evaluating AnzenBio's PD Assay Kit and the PDS-8, a new field-deployable device for the detection of *X. fastidiosa* in grapevines and almond trees. The current standard in sample detection involves sending samples to a pathology lab where the xylem sap is extracted from leaf petioles, plated on a specific medium and either enzyme-linked immunosorbent assay (ELISA) or polymerase chain reaction (PCR) is performed for positive identification of the bacterium.

Both techniques have their benefits and drawbacks, including sensitivity of detection, false negatives and costs. But the No. 1 drawback of each technique for agronomists is the time it takes to send out samples and the wait for lab results.

The PDS-8 utilizes electrochemical detector (ECD) system technology. The ECD system is ELISA-based. However, instead of reading color change or optical density at a certain wavelength to determine a positive or negative result, the ECD reads an electric current as a result of an oxidation/reduction reaction produced during sample preparation.

Our lab has found that the PDS-8 is very easy to use with training. The time it takes to complete the diagnostic procedure is approximately one hour. If ECD proves to be as effective as ELISA in detecting *X. fastidiosa* in grapevines, it would be possible to achieve a positive result and pull out the diseased vine in a single day — a welcomed accomplishment in PD management.

To learn more about electrochemical detection technology, please visit www.anzenbio.com.

—Jennifer Hashim,
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“Our preliminary survey efforts in the Arvin and Lamont area indicate that summer symptoms of PD have been present in mature vineyards since the middle of July. So, this is an excellent time of year to survey high-risk areas.”

— Jennifer Hashim,
UCCE Viticulture
Farm Advisor