

April 11, 2003

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).*

## Spring means monitoring vineyards for PD symptoms

Last summer, the UCCE/CDFA Pierce's Disease (PD) Monitoring and Control effort covered approximately 4,000 acres of vineyard located throughout the six zones of the area-wide management project for glassy-winged sharpshooter (GWSS) in Kern County.

This effort has provided an essential layer of information to the project on the history and location of PD in Kern County. It is not surprising that the vast majority of vines affected with PD were located in both the General Beale Pilot Project and the Northern zone (Table 1). These areas were under great GWSS pressure prior to the initiation of the vector control project.

However, it is interesting to note that there were several finds in southern Arvin and in vineyards along Highway 166. This information indicates that PD occurs at a relatively low level but is widespread across the southern grape-growing regions of the county.

Regardless of whether the vineyard is located inside or outside of a hot spot area, now is the time to begin monitoring vineyards for spring symptoms of PD and to develop plans for disease survey and control throughout the season. The following discussion provides helpful hints for monitoring PD during the spring.

**Spring PD symptoms.** Delayed shoot growth in the spring is the first indication of PD, and it may be delayed by several weeks. With new infections, only shoots from a single cane or spur will show delayed growth. However, in the final stages of the disease, almost all of the shoots are delayed or only a few stunted shoots may remain while the rest of the cordon appears dead.

Winter injury, poor wood maturity and other diseases such as Bot canker or Eutypa dieback may be confused with PD symptoms. The distinguishing factor is that delayed growth resulting from winter injury or poor wood maturity will show up uniformly in a large number of vines grouped

within the vineyard, whereas PD may appear as a single diseased vine surrounded by healthy vines or as small clusters of vines near the end of the row or sporadically throughout the vineyard, depending on the vector.

Since PD symptoms are due to water stress, a good rule of thumb is to cut into spurs of suspicious vines and observe the color and moisture content of the wood. The wood of healthy vines should be light green and moist, whereas diseased wood appears yellow and dry. This method will also allow you to rule out Bot canker or Eutypa, which cause pie-shaped wedges of dead wood characteristic of fungal infections.

Another spring symptom of PD is leaf mottling at the base of affected shoots. The discoloration looks a bit like zinc deficiency, and the leaves are often deformed and smaller than healthy ones. Mottling increases with disease severity. This phenomenon varies with variety and may be difficult to see in newly infected vines. As the heat intensifies and summer approaches, mottled leaves will eventually give way to classic marginal burn.

**When in doubt, pull it out.** If you're wondering whether that one, two or 30 sickly vines are showing early symptoms of PD, ask yourself the following questions:

1. Have I had PD in my vineyard before?
2. Has my vineyard been exposed to populations of GWSS or am I located near crops (such as citrus) that host GWSS?
3. Is my vineyard weedy or do I use cover crops that may host populations of native sharpshooters (red-headed, green, blue-green)?
4. Am I located next to crops (such as alfalfa or almonds) that host the bacterium that causes PD?
5. Am I located near a riparian habitat (also a habitat for blue-green sharpshooters)?

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### Web sites:

- [www.kernag.com/kpp.htm](http://www.kernag.com/kpp.htm)
- [www.co.kern.ca.us/farm/luvisi.htm](http://www.co.kern.ca.us/farm/luvisi.htm)

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—Jennifer Hashim,  
UCCE Farm  
Advisor,  
Kern County



## Kern-Tulare GWSS Update

### Spring means monitoring vineyards for PD

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If you answered yes to any of the above questions, chances are it's probably PD, and those vines should be removed as soon as possible.

But, if you are still doubtful, flag suspicious vines and return to them in August; examine the foliage for classic leaf burn, persistent petioles and shriveled fruit. At this time, you may also pull samples from affected vines and send them to a labora-

tory for PD analysis.

Remember, there is no cure for PD, and rouging diseased vines is the only solution for reducing inoculum.

If you have any questions about PD symptoms or lab analysis, please contact the Cooperative Extension office at (661) 868-6223.

*—Jennifer Hashim  
UCCE Farm Advisor, Kern County*

**Table 1. Summary of the Pierce's Disease survey effort in Kern County**

Areas surveyed for Pierce's Disease	Total number of blocks surveyed	Total number of acres surveyed	Number of tissue samples collected	Number of PD+ samples
General Beale Pilot Project	42	888.2	1,976	908
North: Edison/Bena	7	234	145	109
South A: Arvin	22	314.4	39	6
South B: Arvin	28	259	84	9
Central: Arvin	2	32	0	0
West: Hwy 166	32	801	56	6
Hwy 65 and Delano	83	1,586.8	243	0
<b>Total</b>	<b>216</b>	<b>4,115.4</b>	<b>2,543</b>	<b>1,038</b>

### Still time to register for GWSS/PD workshop

Organizers say the response to the Glassy-winged Sharpshooter/Pierce's Disease Workshop, set for April 22 in Napa, Calif., has been enthusiastic—and it's not too late to register.

The registration fee is \$75, and includes lunch. The conference will run from 8 a.m. to around 5:30 p.m.

A block of room is being held at the Embassy Suites Hotel in Napa at a special rate of \$125 a night. For reservations, call (707) 253-9540.

To register or learn more, call Carol Lerner at UC Riverside at (909) 787-5089 or e-mail [carol.lerner@ucr.edu](mailto:carol.lerner@ucr.edu).

The complete agenda and sponsors are posted at [www.ucbugdr.ucr.edu](http://www.ucbugdr.ucr.edu).

Continuing credits for PCAs will be available.