

PIERCE'S DISEASE

**"We now have resistant
grapevines surviving
in areas where non-
resistant vines are
being killed by PD."**

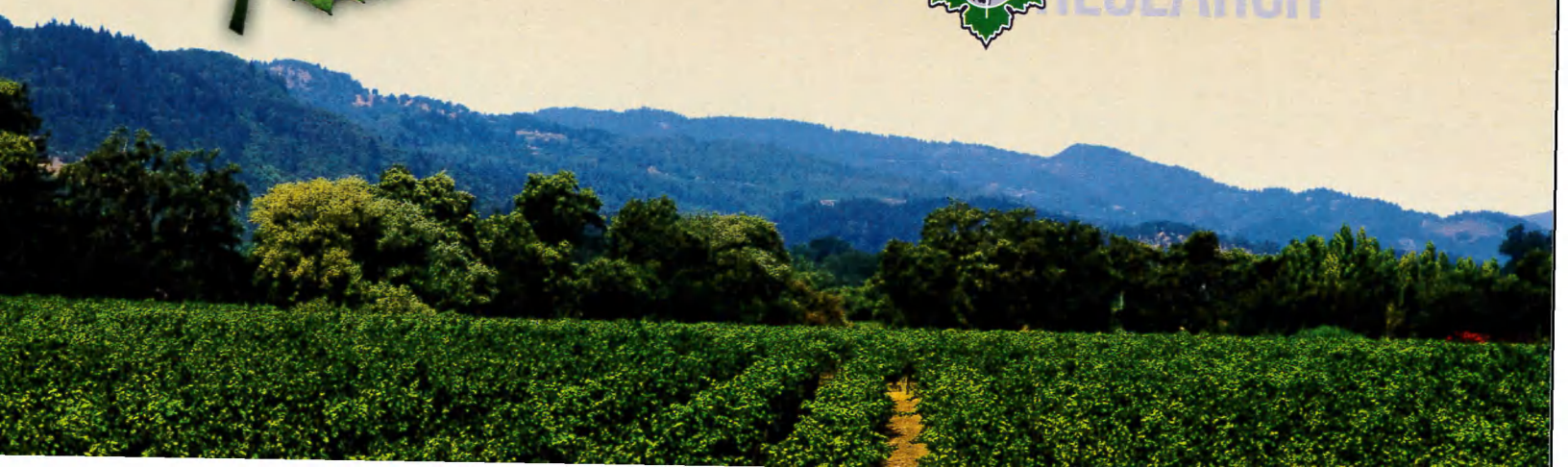
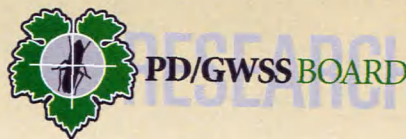
Dr. Andy Walker, UC Davis



Fifteen Years of **SUCCESS**

Pierce's disease (PD) has been a threat to California grapes ever since the first vines were put in the ground. But it wasn't until the 1990s, when the invasive glassy-winged sharpshooter (GWSS) arrived and spread throughout Southern California, that PD posed a very real threat of wiping out California's grape and wine industry.

A lot has been done in the last 15 years to protect California from this threat, including a statewide nursery inspection program to prevent the spread of GWSS, area-wide management programs to protect grapevines in GWSS infested areas, and grower-funded research that has led to several possible solutions to the disease.



Ready to Address Other Threats

IN 2009, THE PD/GWSS LAW was changed to allow winegrape assessment funds to be used for research and outreach on other pests and diseases of winegrapes. These pests and diseases must pose serious threats to winegrapes, and efforts directed against them must not substantially diminish the efforts on Pierce's disease.

Since 2010 the PD/GWSS Board has designated three pests and one disease as being serious threats to California winegrapes.



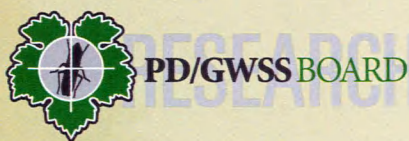
The first pest was the **European grapevine moth (EGVM)**. Swift action by the Board contributed greatly to the statewide reduction of this pest. Steady progress toward eradication continues.

The second pest designated was the **brown marmorated stink bug (BMSB)**. BMSB is a native of western Asia but probably arrived here from the eastern U.S. Its feeding causes small necrotic spots on fruit and leaf surfaces, and BMSB harvested with grape clusters may cause a taint in wine. General pesticide applications are not effective because BMSBs do not stay long on the plants they feed on.



The third pest designated was the **vine mealybug**. It causes damage on a large scale in some regions of California both directly and from diseases that it spreads.

The disease designated as a serious threat was **grapevine red blotch (GRBaV)**. While just newly discovered, it may have been in vineyards for decade. GRBaV can greatly reduce yield as well as sugar levels, making the grapes less suitable for making wine. Little is known about the disease and its vectors, and currently there is no known cure.



For more information, you can visit these websites:

CDFA Pierce's Disease Control Program – www.cdfa.ca.gov/pdcp

PD/GWSS Board Forum – www.pdgwss.net

Pierce's Disease News and Research – www.piercesdisease.org

UC Pest Management Guidelines for PD –
www.ipm.ucdavis.edu/PMG/r302101211.html

UC Integrated Viticulture Online – www.iv.ucdavis.edu



FUNDING

Where It Comes From & How It Is Spent



For the last 15 years nearly \$20 million a year has been provided by governmental agencies to control and prevent the further spread of GWSS. That's roughly \$2,800 annually for every winegrape grower in California.

During this time an average of \$3 million of winegrape grower assessment dollars has been spent each year on research and other efforts to find solutions to PD. Research and outreach on newly emerging threats to California's vineyards such as the European grapevine moth, brown marmorated stink bug, vine mealybug, and red blotch may also be supported with assessment dollars.

USES OF INDUSTRY PD/GWSS ASSESSMENT FUNDS

Basic Research - \$24,112,800

Applied Research & Field Trials
\$5,090,100

Administration & Grower Votes
\$3,342,997

Research-related Services
\$3,002,200

Program Support - \$2,282,300

Public Outreach - \$1,862,100

Other Designated Pests & Diseases - \$266,000

