

Pierce's Disease

fact sheet



Pierce's Disease (PD) has been present in California since 1884. Caused by a strain of the bacterium *Xylella fastidiosa*, PD kills grapevines by clogging their water-conducting vessels (xylem). The disease has caused sizable losses in California viticulture in the past, but the damage occurred primarily in traditional "hotspot" areas. Until recently, the damage was not severe enough to completely prevent grape production in affected areas.

The situation changed dramatically with the arrival of the Glassy-Winged Sharpshooter (GWSS) in the 1990s. GWSS is native to the southeastern United States and northeastern Mexico. It feeds on the xylem fluid of a large number of plants. The sharpshooter builds up large populations on a diverse array of host plants and is an aggressive flyer, traveling greater distances than native sharpshooters.

Viticulture in traditionally safe-growing regions is now at risk from PD. California's first indication of the severe risk posed by this new disease and vector combination occurred in Temecula, Riverside County, in 1999, when over 300 acres of grapevines infested with GWSS were destroyed by PD. Counting only grapes, PD now threatens a crop production value of \$3.2 billion and associated economic activity in excess of \$33 billion. Other crop and ornamental plant resources, such as almonds (\$897 million) and susceptible species of citrus (\$1.07 billion), stone fruits (\$905 million) and shade trees, are also at risk, either from the PD strain of the bacterium or from related strains found elsewhere in the world.

Scientists believe that GWSS has the potential to increase both the incidence and severity of PD in California. The combination of PD and GWSS continues to be an unprecedented threat to California's multi-billion dollar grape and wine industry as well as to almonds, oleander, and other crop and ornamental plants.

For more information:

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