

■ Sharpshooter on the move

Despite efforts to contain the glassy-winged sharpshooter in Southern California, it has been popping up recently in different locations around Northern and Central California, stirring fears of the dreaded Pierce's disease.

On June 9, the California Department of Food and Agriculture designated Fresno and Tulare counties as infested with glassy-winged sharpshooter (GWSS). Any shipments of GWSS-regulated nursery stock from Fresno and Tulare counties must meet the entry requirements of the receiving county.

Sharpshooters spread the bacterium *Xylella fastidiosa*, which causes Pierce's disease. Pierce's disease kills vines by clogging the plant's water-conducting tissues. Over the past three growing seasons, the disease has killed more than 300 acres of vineyards in the Temecula Valley and threatens the survival of Riverside County's viticulture and wine industries.

GWSS is a serious threat to California vineyards because it travels longer distances, penetrating farther into vineyards than other sharpshooter species. Its larger mouthparts allow it to feed on older wood.

Four GWSS infestations have been found in residential areas of Fresno County. Richard L. Coviello, Fresno County entomology advisor, thinks GWSS has been in Fresno for at least a year because an amateur entomologist had a specimen in his insect collection that he collected last year, and based on the abundance of insects and the fact that they've found old egg masses and even parasitized egg masses.

GWSS egg masses have turned up in Alameda, Napa, Sonoma, Lake and San Luis Obispo counties on shipments of ornamental plants from Southern California. In Napa, where only old and parasitized egg masses were found, the Board of Supervisors is moving to adopt a local ordinance restricting the movement of nursery stock and harvested fruit from any infested county.

Gov. Gray Davis signed legislation providing \$6.9 million to fight GWSS. An additional \$6.9 million is expected to be added next year. Congress is making \$7.14 million available to protect California crops from GWSS.

For more information about Pierce's disease, see the Web site: <http://danr.ucop.edu/news/speeches/PDcontents.html>

■ Oaks deaths become epidemic

From Mendocino to Santa Barbara counties, California's oak trees are dying at an alarming rate. The cause of the massive mortality is unknown.

UC plant pathologists are studying two unidentified fungi species that were isolated from tanoaks and coast live oaks to see what, if any, role they play in the oak deaths. "I think it's likely that we won't find a single organism is causing these trees to die," says Tom Gordon, UC Davis plant pathologist. He notes that many fungi live on the oaks without causing a problem, but under stress, trees may become vulnerable.

Since 1995, tanoak (*Lithocarpus densiflorus*) and coast live oak (*Quercus agrifolia*) have been dying in large numbers in Marin, Santa Clara, Santa Cruz, and Monterey counties. The mysterious disease has spread to black oak species.

Pavel Svihra, Marin County horticultural advisor, flew over 30 plots of coast live oak and estimated the loss at about 40%. Marin Municipal Water District estimates 10,000 tanoak trees have been killed by the enigmatic pathogen since 1995.

Not only does the loss of these highly valued trees from gardens and forests cause concern, but the thousands of dead trees also pose a serious fire hazard. The rate of live oak death in Marin County prompted county supervisors to ask the state for \$3.1 million for research and to help manage the epidemic.

"Never before have we experienced such a rapid death of oaks," Svihra says. "When symptoms start to manifest, it will last no more than 6-8 weeks, then the tree is gone."

The first noticeable sign is wilted shoots, then older leaves turn pale green and 2 to 3 weeks later, the foliage turns brown. The inner bark of affected trees "bleeds" burgundy-red sap.

Ambrosia beetles and oak bark beetles attack the distressed oaks. Svihra recommends spraying diseased trees with the insecticide Astro to prevent beetles from boring inside the tree and hastening its death. By applying the insecticide between June and August last year, he was able to prevent beetle attack until mid-November.



Jack Kelly Clark

Glassy-winged sharpshooter