

Agri-Fos and Selective Bay Tree Removal Study

This study began Nov. 2008 to test the effectiveness of the fungicide Agri-Fos along with selective removal of California bay trees in preventing the spread of the sudden oak death through large stands of trees. The research is being conducted on Open Space District land in cooperation with the University of California at Davis and Phytosphere Research, which has a \$44,000 grant to study sudden oak death from the U.S. Forest Service.



Large coast live oaks at Rancho San Antonio Preserve with bay trees removed.

Research Project Details

The California bay tree has been identified as a main transmitter of sudden oak death because it hosts the pathogen on its leaves, but is not killed by it. Spores of *P. ramorum* spread from the California bay tree leaves to nearby oak trees, which become systemically infected and die of sudden oak death.

Healthy oak trees at three sites were chosen for treatment in this study. In December 2008, some of the oak trees were treated with Agri-Fos, a phosphite compound that helps prevent the healthy trees from becoming infected. In addition, small California bay trees within a minimum of eight feet from the oak trees were removed to prevent the transmission of the sudden oak death pathogen. The three research sites include:

- 1) **The Rancho San Antonio Open Space Preserve:** Small California bay saplings and trees were removed from within eight feet of about 70 coast live oak trees on one acre near the Lower Meadow Trail. About 20 of the trees were also treated with Agri-Fos.
- 2) **The Monte Bello Open Space Preserve** provides a unique five-acre site with hundreds of Shreve oak trees near the Skid Road Trail. The oak trees at this site were not be treated with Agri-Fos due to the large size of the study area and the low density of California bay trees, which were mostly small saplings and have been removed.
- 3) **The El Corte de Madera Open Space Preserve** study area is on three quarters of an acre near Bear Gulch Road where about 150 tanoak trees were treated with Agri-Fos. Some understory material was removed from around the tanoaks. There are no California bay trees at this site. Tanoak trees, which are not true oak trees, have suffered high rates of mortality from sudden oak death and have also been identified as a transmitter of the pathogen.