

Q: I have dead and dying oak trees on my property. How can I tell if the oaks have Sudden Oak Death?

A: The disease called 'Sudden Oak Death' has been showing up in neighborhoods in the western side of Contra Costa, with identified trees dying in Canyon, Moraga, Orinda and El Sobrante. The wet winters and springs we had in prior years created ideal conditions for the spread of the pathogen, *Phytophthora ramorum*, a fungal-like plant destroyer. This organism can live on the leaves of many host plants, (for a current list go to <http://nature.berkeley.edu/comtf/>), where it causes the tips to brown or spotting to occur. In our area the main foliar host is our native bay, *Umbellularia californica*. The pathogen lives and sporulates on the leaves of the bays; with rain or fog drips onto susceptible trees such as Live Oak, *Quercus agrifolia*, penetrates under the bark and spreads into a canker. Bark beetles and hypoxylon fungi show up to finish the job of killing the trees, which in spite of the name, "Sudden Oak Death" may take years to occur. Oak trees that have been infected may be asymptomatic, but sometimes you will see drops of deep red sap oozing out of the bark. This symptom is not diagnostic, as other pathogens can cause the same oozing to appear. Dark sunken areas on the trunk of a tree accompanied by bleeding would give you a good reason to call a certified arborist and ask for an evaluation. It is important to find out if trees close to your home, outside play areas or driveways are infected, as they are more likely to fail. If you see beetle frass or the golf-ball black fruiting bodies of hypoxylon fungi on the trunk, the tree is dead; even if some green leaves remain. It is not possible to positively diagnose a tree by looking at it. Samples of infected tissue must be sent to a plant pathologist, where live cultures of the pathogen are grown out and identified. The Sudden Oak Death web-site has a link under 'Treatment and Management' to lists of arborists who have been trained in the correct sampling techniques, and who are aware of the restrictions and regulations regarding infected trees. That site also has photographs of infected trees, beetle frass and hypoxylon fungi.

One of the most effective preventative approaches you can take is to cut back bays so the limbs are not overhanging live oaks. Bays have extensive root systems that stabilize slopes, but cutting them back to ground level and allowing them to resprout keeps the roots intact and functioning, but reduces the possibility of spores raining down. If possible, branches of bays should be pruned back a minimum of 30' from susceptible oaks. Keep all infected material on site, composting leaves and tarping firewood. Do not share bay leaves with friends and neighbors, or firewood. The preventative Agri-Fos® can be applied by Pest Control Operators, and is the only product available at this time.