



Staff Report

SUDDEN OAK DEATH

Honorable Chair and Board Members:

Summary

Since 1995, native oaks have been dying in California's coastal counties due to a disease known as Sudden Oak Death. This disease is caused by the pathogen *Phytophthora ramorum*. Sudden Oak Death infections are often fatal on tanoak, coast live oak, California black oak, canyon live oak, and Shreve oak.

In March 2008, the City of Belmont contacted the San Mateo County Agricultural Department to report two dead oak trees on the south side of Water Dog Lake. San Mateo County biologists took samples and sent them to the State of California laboratory for Sudden Oak Death testing. In April, 2008 positive test results confirmed the first case of SOD in Belmont. City staff is continuing to monitor any new developments or new management practices and will report any new developments to the respective authorities.

The City of Belmont contacted the California Oak Mortality Task Force, the San Mateo County Agriculture Department and collaboratively will host a community workshop on May 22, 2008 to educate the public on the disease. The workshop will be held in the Council Chambers of Belmont's City Hall at 7:00pm and will also air on the local cable channel. The workshop is an education opportunity to address homeowners concerns, including diagnosing infected trees, disposing of contaminated material, and understanding treatment options that are available.

Background

Sudden Oak Death has resulted in the death of millions of tanoak and coast live oak trees in California. In addition, more than 35 other plant species are susceptible to the pathogen, yet most of these species suffer only minor damage, limited to leaf spots or twig dieback. Some of the host species include bay laurels, buckeyes, poison oak and redwoods; however, on oak trees the disease is usually fatal in a short period of time.

In infected areas, the pathogen will move from host plants to other tree species especially when it rains. The pathogen produces a microscopic flask, guided by tiny propellers, the flask will swim toward a new plant, and the infection begins anew. According to experts, Sudden Oak Death is most prevalent from early spring to the early summer.

Though Sudden Oak Death is a forest disease, it is common in urban-wildland interface areas, so it presents challenges for homeowners. The disease is of concern to Belmont because a vast majority of our wild lands have the landscape profile where there have been large outbreaks. Belmont's open space areas consist of bay laurels, buckeyes, poison oak and redwoods all of which are hosts of the pathogen.

The best defense against Sudden Oak Death is to follow the regulations and best management practices that are in place to help slow the “artificial” or human-mediated spread of the disease. State and federal regulations prohibit the movement of host plant material from regulated counties. When entering infected areas, it is important to stay on established trails and respect trail closures. The pathogen's spores can be carried on shoes, mountain bikes, vehicles and pets accelerating the spread of the disease. Another preventative measure is to disinfect equipment used in an infested area.

Treatment:

Agri-Fos is the only registered and approved treatment available in California for use on tanoak and coast live oak trees. This treatment is not a cure, but can help protect trees from infection, and in some cases can help slow as well as suppress disease progression in very early infections. However, it is not useful for trees with advanced symptoms.

Agri-Fos may be injected directly into a tree or sprayed on the trunk for absorption through the bark. According to the manufacturer's label, apply the initial treatment in the spring or fall. Follow the initial treatment with a second treatment the following spring or fall. Thereafter, treat every year in the fall for oaks in high risk locations for infection.

Neighboring non-oak plants are thought to be a source of infection for oak trees. Because this relationship is not fully understood, large scale removal of non-oak plants is not recommended. It may also be best to plant non-*Phitophthora ramorum* hosts under or adjacent to oak trees. Rhododendron, for example, is a commonly planted ornamental that is a host and it is possible that an infested rhododendron could infect a nearby oak.

A tree with Sudden Oak Death needs to be considered and treated differently than a tree without the disease, but the disease alone is not justification for removing a tree. Current information indicates that non-oak foliar trees hosts contribute the most to disease spread, so removing infected oaks will probably have little or no impact on local disease levels and spread. However, an important consideration with respect to any tree is whether or not it presents a hazard to life or property.

Disposal of infested material is extremely important because branches, twigs, and leaves from host plants may harbor *P. ramorum* even after they are removed from the plant. In infested areas,

the best option is to leave the infested material on site, chipping the small material for use as ground cover. Since inoculum levels are already high, leaving the additional inoculum from infested plant material on site will not significantly worsen the local disease conditions.

Recent research by scientists has developed new theories on how to combat the disease. All treatment methods must be scientifically proven and to date only the use of Agri-Fos is an approved method. The State of California has dismissed a recent theory of using “Lime wash” and spreading volcanic ash around the drip line of trees because there is no scientific data to prove it. UC Berkeley experts continue to research the disease and are closely monitoring any new developments.

Public Contact

Posting of Tree Board agenda

Attachments

- A. Workshop agenda
- B. Workshop press release

Respectfully submitted,

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