Forest Facts:
Sudden Oak Death
(Phytophthora ramorum)

Since 2001, an interagency task force and affected landowners have worked to slow the spread of sudden oak death (SOD, caused by *Phytophthora ramorum*) in Curry County. Activities ranging from timber harvest, collecting special forest products, to ornamental nursery production have been affected by SOD.

Tanoak mortality caused by P. ramorum in Brookings, Oregon in 2015

In order to minimize the risk of new infestations and prevent human assisted spread, state and federal quarantines are in place in Curry County (ORS 603-052-1230 and 7 CFR 301.92). In 2001, the SOD program goal was complete eradication of *P. ramorum* in Curry County. However, despite eradication efforts SOD continued to intensify. By 2010, Oregon's SOD program on forestland transitioned from eradication to slowing the spread of *P. ramorum*. Recently, the SOD spread rates have increased but the disease remains confined to Curry County.

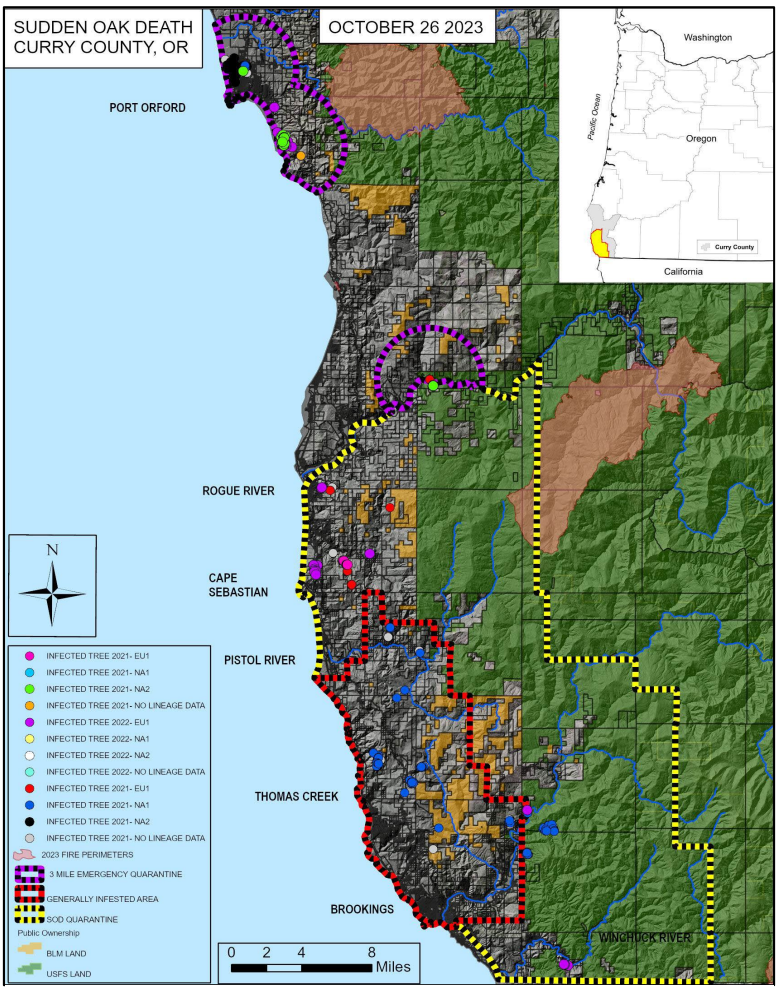
Background

Sudden Oak Death (SOD), caused by the non-native pathogen *Phytophthora ramorum*, kills highly susceptible tree species such as tanoak and California black oak by causing lesions on the main stem.

SOD symptoms on tanoak—(a) stem canker, (b) foliar dieback, (c) dead tanoak with red leaves

It also causes leaf blight or shoot dieback on a number of other hosts including rhododendron, evergreen huckleberry, Douglas-fir, grand fir, and Oregon myrtle. In Oregon forests these hosts are only infected when growing very near infected tanoaks. *P. ramorum* spreads during rainy periods when spores produced on infected leaves or twigs are released into the air and are either washed downward or transported in air currents. Maximum distance of natural spread appears to be 3-4 miles per year. The pathogen can survive for months or years in soil or plant parts. The disease also can be spread by humans transporting infected plants or infested soil.

Foliar symptoms of SOD—(a) Douglas-fir, (b) Oregon myrtle, (c) rhododendron, (d) grand fir



Location of sites infested with *Phytophthora ramorum* in southwest Oregon that were discovered in 2020-2023.

Initial SOD eradication in Oregon

When first discovered, the objective of Oregon's SOD program on forestland was eradication. Eradication treatment of an infested site consists of cutting, piling and burning all infected plant material and nearby host plant material within a specified radius (aka treatment buffer) surrounding infected plants. Monitoring studies have shown that treatment within a 300-foot buffer conducted promptly following detection can successfully eliminate the pathogen from the site and slow spread.

Quarantine Regulations

Spread of *P. ramorum* on state, private, and federal lands is managed by the designation of a SOD quarantine area under the authorities of the Oregon Department of Agriculture (Figure 3, ORS 603-052-1230). The quarantine requires infested sites to undergo eradication treatment, prohibits the movement of infected material outside of the quarantine area, specifies the best practices to apply when moving non-bole host plant material from infested sites and sets forth requirements for disease-free certification when moving uninfected host material to areas outside the quarantine. In 2012, the program designated a Generally Infested Area where no treatment is required. Since 2001 the quarantine area has expanded seven times. In 2015, the quarantine area was expanded to 515-square miles. Quarantine boundaries are subject to change. Please visit ODA's website for current boundaries (www.oregon.gov/oda).

Current slow the spread program

Early detection is critical to the current slow-the-spread program. The program uses a three-pronged approach of aerial detection, water sampling, and ground-based surveys. Oregon and our federal partners continue to slow spread SOD by cutting and burning the infected trees and surrounding area. The program places higher priorities on treatments on outlying new sites to provide the greatest return on investment.

References and further reading

USDA APHIS Regulated Host List

OSU Extension Sudden Oak Death Guide

OAR 603-052-1230

More information

Oregon Dept. of Forestry – Forest Health