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Animal and Plant Health Inspection Service
U.S. DEPARTMENT OF AGRICULTURE



USDA FAQ's and resources about coronavirus (COVID-19). [LEARN MORE](#)

Sudden Oak Death

Sudden oak death threatens many of our trees. Learn to spot it and report it.



redit: Joseph O'Brien, USDA Forest Service, Bugwood.org

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Sudden Oak Death (SOD) is caused by *Phytophthora ramorum*, a water mold pathogen. The pathogen is also the cause of the Ramorum Leaf Blight, Ramorum Dieback and *Phytophthora* Canker

Diseases. SOD was first detected in the San Francisco Bay Area in the mid-1990s. It was first recognized as killing trees in Oregon forests in 2001. The SOD pathogen is considered especially dangerous because it affects a wide variety of trees, shrubs and plants and there is no known cure. The pathogen has killed millions of tanoak and coast live oak trees along the central CA coast into Southern OR and is a concern because it also infects rhododendron, camellia and other common horticultural nursery plants.

▼ Where's the Threat?

- SOD is currently found in California and Oregon.
- See Pest Tracker for details

▼ What's at Risk?

More than 75 plant species can either be infected by *P. ramorum* or facilitate its spread. The host list includes:

- Bay laurel
- Bigleaf maple
- California black oak
- California honeysuckle
- California maidenhair fern
- Camellia – all species, hybrids and cultivars
- Canyon live oak
- Coast live oak
- Coast redwood
- Douglas fir
- European ash
- European beech
- European yew
- Evergreen huckleberry
- Horse chestnut
- Lilac
- Madrone
- Manzanita
- Mountain laurel – all species, hybrids and cultivars
- Oak, multiple varieties
- Pepperwood
- Red tip photinia
- Rhododendron (including azalea) – all species, hybrids and cultivars
- Scotch heather
- Southern red oak
- Sweet chestnut
- Tanoak

- Toyon
- Viburnum – all species, hybrids and cultivars
- Western maidenhair fern
- Western starflower
- Witch hazel
- Wood rose

▼ Source of the Threat

- Nursery stock
- Wind-blown rain
- Contaminated irrigation water
- Infected plants
- Contaminated soil or potting mix

▼ Signs and Symptoms

- Bark cankers (calluses on woody portions of trees, often seeping black or reddish ooze)
- Leaf spots
- Twig dieback

▼ What You Can Do

- Know the quarantines in your area and learn to *leave Hungry Pests behind*.
- Cooperate with all quarantine restrictions or rules that might be imposed.

Quick Links

[APHIS Phytophthora ramorum \(SOD\) Website](#)

[Phytophthora Ramorum: Stopping the Spread](#)

[California Oak Mortality Task Force](#)

What's at Risk from the Sudden Oak Death:

