

# Eradication of *Phytophthora ramorum* in Oregon Forests—Status After 3 Years<sup>1</sup>

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## Abstract

Sudden oak death (SOD) was first discovered in Oregon forests in July 2001 near the city of Brookings. Since September 2001 we have been attempting to eradicate the pathogen by cutting and burning all infected host plants and adjacent apparently uninfected plants. Eradication currently is in progress on approximately 42 sites, totaling 72 acres. The majority of sites are on private land. All eradication funding has come from the USDA Forest Service.

The number of infected trees discovered each year has decreased since we first discovered the pathogen in Oregon (*table 1*). Most new infected trees tend to occur very near eradication sites, and usually in a northward direction as result of spread by wind and rain. In 2004 we found only 30 new infected trees (nine new sites and five extensions to existing sites), all near existing infested sites. This was a major improvement in the rate of new discoveries compared to previous years, and suggests that the eradication effort is slowing spread of the pathogen.

Monitoring vegetation and stream water within the eradication sites has shown that the pathogen survived cutting and burning on most sites. It survived in stumps and sprouts of host plants, primarily tanoak (*Lithocarpus densiflorus*). In 2003 and 2004, all stumps and sprouts of host vegetation on private land were treated with herbicide to kill sprouts and prevent future sprouting. On federal lands sprouts are being cut and burned repeatedly in order to keep sites free of host sprouts until the pathogen can no longer be recovered. Ongoing chemical and mechanical destruction of sprouts on all sites will be essential to curtail future spread of the pathogen.

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Despite several new occurrences of *Phytophthora ramorum* in 2003 and early 2004, distribution of the pathogen in Oregon forests remains limited to a very small area near Brookings. Repeated aerial surveys and ground-checks have failed to detect the pathogen in forests beyond this area. The forested area in Oregon under regulation by the Oregon Department of Agriculture and USDA- APHIS is 11 mi<sup>2</sup>. Intensive and extensive monitoring and eradication activities in Oregon forests likely will continue for several years.

**Table 1**—Occurrence of *P. ramorum* and Sudden Oak Death patches near Brookings Oregon; aerial and ground surveys combined, December 30, 2004.

Year	Number of tanoaks infected with <i>P. ramorum</i>	Number of new disease patches	New area undergoing eradication each year (acres)
2001	100+	9	40
2002	85	12	8
2003	48	12	12
2004	30	9	12
Total	263+	42	72