

Surveying for *Phytophthora ramorum* in Urban and Wild Forests Throughout Western Oregon¹

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Abstract

In 2004, Oregon received information indicating *Phytophthora ramorum*-infected nursery stock may have been shipped to 52 nurseries throughout western Oregon. The pathogen was detected in nine of the nurseries in seven counties (Clackamas, Josephine, Lane, Lincoln, Marion, Multnomah, and Washington). Because the pathogen may have been present at these nurseries for approximately 12 months, the urban and wild forests nearby were surveyed. As the *P. ramorum*-susceptible plants were not contiguous in these areas, the USDA Forest Service-Sudden Oak Death (*P. ramorum*) National Detection Survey for Forests protocol was used to provide a systematic survey strategy. Four transects were established around each nursery and around a tenth nursery (Columbia County) where *P. ramorum* was found. All susceptible plants within each transect were visually surveyed and samples collected for laboratory testing. Five subsamples per plant were tested with DAS ELISA to identify *Phytophthora*-infected plants. DNA was extracted from ELISA-positive samples by spin column chromatography and then tested with nested PCR and with multiplex PCR. A total of 782 samples were collected from 40 transects. One sample collected in Marion County tested ELISA-positive. DNA testing showed the *Phytophthora* infecting the plant was not *P. ramorum*. Based on these survey results, *P. ramorum* did not spread from the infected stock within the nurseries into the natural environment in these eight counties in western Oregon.

Key words: *Phytophthora ramorum*, forest survey, nursery perimeter

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