

## **Detection and Distribution of *Phytophthora ramorum* in Soils.**

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Failure to detect *Phytophthora ramorum* in soils throughout the year does not denote absence of viable propagules, but the inability to detect soilborne chlamydospores. The objectives of this study were to 1) compare pear and rhododendron bait materials for detection of sporangia and chlamydospores; and 2) assess the seasonal distribution of *P. ramorum* within redwood-tanoak forest soils. Soil was infested with sporangia or chlamydospores, baited with either pears or rhododendron leaves, then symptomatic bait tissues were transferred to selective medium. Chlamydospores were not detected by either bait material; however, rhododendron leaves were more sensitive than pears for detection of sporangia. Soil and leaf litter samples have been collected monthly from December 2003 to present under host trees including *Sequoia sempervirens*, *Lithocarpus densiflorus*, and *Umbellularia californica*. *P. ramorum* was recovered from soils from December 2003 through June 2004, with the highest frequency of recovery occurring under *U. californica* and minimal recovery under *L. densiflorus*. Recovery of soilborne inoculum was low overall, but underestimated given the limitation of current baiting techniques to detect chlamydospores. Further studies are proposed to address quantitative detection of pathogen propagules in soil and investigate the role of chlamydospores in pathogen survival.