PERSISTENCE OF *PHYTOPTHTORA RAMORUM* AFTER ERADICATION TREATMENTS IN OREGON TANOAK FORESTS

Ellen M. Goheen[1], Everett M. Hansen[2], Alan Kanaskie[3], Paul Reeser[2], and Wendy Sutton[2]

[1]USDA Forest Service, Forest Health Protection, 2606 Old Stage Road, Central Point, OR 97502, USA

[2]Oregon State University, Department of Botany and Plant Pathology, 2082 Cordley Hall, Corvallis, OR 97331, USA

[3]Oregon Department of Forestry, Forest Health Management, 2600 State Street, Salem, OR 97310, USA

Phytophthora ramorum was identified in late July 2001 in forests on the Southwest Coast of Oregon where it was killing tanoak (*Lithocarpus densiflorus*) and infecting Pacific rhododendron (*Rhododendron macrophyllum*) and evergreen huckleberry (*Vaccinium ovatum*). Treatments to eradicate the pathogen from affected sites began in the fall of 2001 and consisted of cutting, piling, and burning all infected host vegetation and all Oregon host plants within a 15 to 30 meter buffer of infected plants. Since then, additional disease centers have been identified and eradication treatments have been completed. Treatment methods have been altered to reflect increased understanding of host susceptibility and pathogen survival and spread. Modified treatments include using herbicides to kill or prevent sprouting and increasing buffer width to 100 meters. Some sites have been planted with conifer seedlings while others have not.

The presence of *P. ramorum* on treated sites has been intensively monitored via soil, water, naturally regenerating and planted vegetation. Plots located around known infested stumps were established at some of the earliest treated sites. Conifer seedlings were planted as *P. ramorum*-susceptible baits around these stumps. Soil has been collected periodically at these stumps and baited for *P. ramorum* presence. Sprouting tanoaks and other host species are monitored for infection using these and other plots established on treated areas. Streams draining the treated areas are baited and rainwater traps have been placed throughout treatment areas in the open, under unburned slash piles, and under canopies of trees adjacent to treated sites.

We report on monitoring results. While a few of the sites treated initially are now evidently free of the pathogen, on many sites *P. ramorum* is still present in the soil or can be baited from streams flowing through treatment areas. However, other than infected sprouts found after initial treatments, infected vegetation has not been identified inside treated areas to date.