

Effects of Phosphonate Treatments on the Growth of *Phytophthora Ramorum* in Tanoak Stems.

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We studied the effect of phosphonate (Agri-fos[®]) injected into the sapwood and applied to the trunks (with pentra-bark[®] surfactant) of living tanoak trees on *P. ramorum* lesion development. We treated trees February and May 2003 at the highest label rates (1X) and at twice the highest label rates (2X). We harvested a sample of treated trees and untreated controls in May, June, and July 2003, and collected a one-meter section of the lower boles. The bole section was inoculated with mycelial plugs of a North American and a European isolate of *P. ramorum* and incubated for 4 weeks at constant temperature at Oregon State University in Corvallis, OR. At the end of the incubation period we shaved the bark, measured the longitudinal and radial extent of lesions associated with each inoculation point, and attempted re-isolation of the pathogen from the lesions. Preliminary analyses indicate that the European isolate caused larger lesions than the North American isolate, and that lesion size was significantly smaller in the injected trees than in the bark-spray or control trees.