

## **Applications of Fungicides to Protect Four Hosts from Foliar Infection by *Phytophthora ramorum* in Curry County, Oregon**

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Oregon's *Phytophthora ramorum* eradication effort in tanoak/conifer forests of Curry County has greatly reduced levels of infection, but has not completely eliminated *P. ramorum* from some affected sites. Two fungicides, Stature® and Agri Fos®, were tested for their ability to protect *Rhododendron macrophyllum*, *Vaccinium ovatum*, *Umbellularia californica* and *Lithocarpus densiflorus* from foliar infection. Fungicides were applied at 1x and 2x their recommended rates in February and April. New foliage was treated in May. Leaves were collected after treatment, taken to the laboratory, wounded, and inoculated with A1(N11A) and A2(4143) isolates of *P. ramorum*. Inoculated leaves were placed in a sealed moisture chamber for one week. Visual analysis of disease incidence and leaf necrosis was done using ASSESS. No fungicide treatment provided complete protection from foliar infection by *P. ramorum* for tested hosts. Data suggest that significant differences between the fungicide-treated leaves and controls for both older and new foliage depended upon the host treated and the *P. ramorum* isolate used. For example, significantly greater leaf necrosis was observed on new *Vaccinium* foliage inoculated with 4143 than on older foliage inoculated with the same isolate ( $P < 0.001$ ). However, no difference was observed on new versus old *Vaccinium* foliage inoculated with N11A ( $P = 0.90$ ).