Understanding Sudden Oak Death

The American Phytopathological Society Creates Avenues for Sharing Research



Phytophthora ramorum, the exotic

plant pathogen known to cause Sudden Oak Death, has caused widespread dieback of oak and tanoak trees in 14 coastal California counties and one county in southwestern Oregon since the mid-1990s. Forests have been forever altered, with up to 80 percent of trees affected in some stands. With more than a million trees lost and at least another million infected, these areas continue to be devastated by this aggressive pathogen. Resulting in untold changes to impacted ecosystems, fire hazards are also ever-increasing, property values are diminished, and concern over pathogen introduction to yet unexposed forests continues to mount.

Not just a forest disease to California and Oregon, *P. ramorum* has also been found causing isolated forest outbreaks in the United Kingdom, the Netherlands, Germany, and Ireland. *P. ramorum* also manifests itself as *Ramorum* Blight, a foliar or twig blight on at least 104 known plant species, including numerous ornamentals such as rhododendron and camellia. If infected, foliar hosts rarely die. Instead, these hosts allow for large amounts of inoculum to build up, thereby facilitating pathogen spread. Foliar hosts can be found in affected wildlands as well as in European, United States, and Canadian nurseries. With many of these popular host plants being shipped nationally and internationally, there is concern over natural areas at high-risk of disease establishment becoming exposed to the pathogen. Since 2002, European nurseries have had more than 825 nursery confirmations in at least 11 countries, the U.S. has had more than 280 nursery confirmations in 24 states, and Canada has had more than 20 nursery confirmations in British Columbia.

In an effort to learn about the effects of this virulent pathogen, APS has been proactive in providing resources to further the understanding of its biology, epidemiology, and environmental impact. At APS Annual Meetings, APS continues to offer the latest *P. ramorum* information through presentations from leading researchers and policy makers.

APS also hosted a public, online SOD symposium and discussion forum (www.apsnet.org/online/SOD) where those working on the front lines of *P. ramorum* shared their knowledge and experience with this pathogen.

Plant pathology research is a critical component to gaining a foothold in the fight against the spread of *P. ramorum*. The more that is understood about its biology and epidemiology, the greater the chances are for preventing further loss through successful management, suppression, and eradication efforts.



For more information on this and other stories about plant pathology, please contact APS at apsinfo@scisoc.org or +1.651.454.7250.