

## Dominican Project Leads Multi-State SOD Research

[NORS-DUC](#) is the only established field research facility in the country designed to study regulated plant pathogens in a secure nursery environment. USDA Farm Bill Funds allow researchers nationwide to investigate quarantined pests/pathogens known to occur in California but which have a national significance.

The first pathogen to be studied at NORS-DUC is *Phytophthora ramorum*, the causal organism of sudden oak death. The *P. ramorum* pathogen is on track to impact the nursery industry's national and international export market beyond that of any other plant disease.

Farm Bill funding will expand testing of two *P. ramorum* soil remediation protocols researched and developed at NORS-DUC. Both appear to be viable options for nursery growers nationally. "As a result of preliminary work at NORS-DUC, two multi-state Farm Bill proposals to establish proof of concept in nursery settings under varying climatic conditions and varying soil types are underway in California, Oregon, and Washington," said Karen Suslow, NORS-DUC program manager.

The two projects are:

- A steam protocol, which in the past two years successfully eliminated *P. ramorum* from two infested nurseries in California, will be trialed at about 15 nurseries in Oregon, Washington, and California.
- A soil solarization technique will be trialed at about 25 nurseries in the three Western states.

Minimizing the spread of *P. ramorum* remains a priority for the USDA and the nursery industry as there is a risk of the pathogen being spread via the shipment of infected nursery plants.

Container-grown nursery plants provide a potential avenue for introducing *P. ramorum* into the natural ecosystem, either through infected plants or in run-off water leaving infested nurseries. The importance of controlling the spread of the pathogen in nursery stock was underscored in March 2004, when some infected camellia plants were inadvertently shipped nationwide from a California nursery to many different nurseries across the U.S.

In 2012, 33 nurseries in eight states had *P. ramorum* confirmations, up from 23 nurseries in five states in 2011.

Sudden oak death has killed millions of trees in the coastal forests in 14 counties in California and a small portion of one county in Oregon. It was first linked with the mortality of tanoaks and coast live oaks in the San Francisco Bay area in the mid-1990s. In 2000, *P. ramorum* was confirmed as the causal agent.

Forests and wild lands outside of coastal California and Oregon have not been impacted by *P. ramorum*. However, USDA risk maps show that the Southeast has been designated a potential "high risk" area for *P. ramorum* damage due to potential shipments of diseased plants across state lines.

NORS-DUC researchers, working with the California Department of Food and Agriculture, successfully eliminated *P. ramorum* from the infested soil at a federally quarantined interstate shipping nursery in California by steaming the soil. Studies conducted at both the NORS-DUC facility in San Rafael and at the nursery demonstrated that steaming infested soil at temperatures

of 50 C and higher for 30 minutes completely eliminated *P. ramorum* from previously infested soil.

[CLICK HERE](#) to read news coverage of the steam project.

*September 17, 2013*