Research on Ecotype Parameters for the Detection of Phytophthora ramorum in Georgia

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In April 2004, Phytophthora ramorum infected nursery stock was shipped from California to many eastern states, including Georgia. At present, 44 nurseries in over 80 locations in Georgia have confirmed the presence of Phytophthora ramorum infections on nursery stock. In addition, some plants were sold to the public before the nursery stock could be quarantined. Phytophthora ramorum has a wide host range that includes eastern oaks and ericaceous plants species. Many genera of east coast plants could support SOD sporulation, particularly the ecologically and economically important eastern red oaks. This study will evaluate various methods of detection and baiting for Phytophthora propagules in water, and vegetation from different ecotypes throughout Georgia. Temperature and humidity will be monitored to characterize the range of these parameters in Georgia forests where potential SOD susceptible hosts occur. This information will help determine if southeastern forests contain microhabitats suitable for SOD development.

Our preliminary surveys of bleeding cankers on oaks indicated a broad assortment of organisms living in bleeding cankers. The organism most often found associated with these cankers has been the fungal species Mortierella and potential antagonists such as Trichoderma.