Genotyping *Phytophthora ramorum* Isolates from U.S. Nurseries Using PCR-RFLP and Microsatellite Analyses

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The risk of introducing the important plant pathogen *Phytophthora ramorum* outside of its present natural range is of extreme concern; however the detection of *P. ramorum* in U.S. nurseries is increasing. The USDA has confirmed the presence of P. ramorum in nurseries in twenty-one states that received plants from an infested southern California nursery. This nursery produces approximately 15 million landscape plants annually, of over 2200 varieties. Although it remains unknown whether these new introductions will lead to an outbreak of sudden oak death (SOD) in the affected states, many potential susceptible hosts of *P. ramorum* are widely distributed in forest ecosystems, and many of the affected states have climatic conditions conducive for SOD. As part of an effort to genotype new nursery infestations, we characterized nineteen of these isolates from thirteen states with cox I RFLP banding patterns (Kroon et al, 2004) and microsatellite analyses (Ivors et al, unpublished data). All isolates screened produced the typical 'U.S.' RFLP pattern and showed no variation among 14 microsatellite loci. These results indicate that all isolates analyzed consist of a single clone genotype, identical to isolates established in the wild in California and Oregon. This discovery is in contrast with findings from other nursery infestations in Oregon and Washington, where both the European and U.S. genotypes have been identified in infested blocks of plants.