

Santamaria, L.; MMBAGA, M.T.; Sauve, R.J.; and Mrema, F.A. 2009. Plant pathogenic *Phytophthora* species found in Tennessee commercial nurseries. *Phytopathology* 99:S114.

Phytophthora has been associated with aerial blight, stem dieback and root rot in commercial nurseries. A survey of 17 nurseries in middle Tennessee revealed the presence of several species of *Phytophthora* including unclassified species isolated from plant tissues, rhizosphere soil in field and container-grown plants, and from various irrigation water sources used by commercial nurseries. *Phytophthora ramorum* was not found. Out of 171 different isolates identified as *Phytophthora* or *Phytophthora*-like, 10 isolates from irrigation water including six unclassified *Phytophthora*, two *P. hydropathica*, *P. megasperma*, and *P. citricola* were selected for pathogenicity tests on 26 woody nursery plant species. The flowering dogwood (*Cornus florida*) was most susceptible to all ten *Phytophthora* isolates, *Pieris* was susceptible to nine isolates, *Viburnum* to eight, silky dogwood (*C. amomum*) and kousa dogwood (*C. kousa*) were susceptible to five isolates. Red maple was least susceptible to four isolates. Out of the ten *Phytophthora* isolates, *P. citricola* was the most virulent on the hosts tested. The in-vitro bioassay technique using detached leaves allows rapid evaluation of *Phytophthora* pathogenicity on a large number of hosts using limited space and inoculum resource. Other bioassay techniques such as inoculation by spray, drench on roots are in progress to provide a better understanding of the virulence of these *Phytophthora* isolates.