Laurel Wilt, Caused by *Raffaelea lauricola*, is Detected for the First Time Outside the Southeastern United States


In October 2014, a survey for diseases and pests of an emerging fruit crop, avocado (*Persea americana*) (FAO 2000), was conducted in Southern Shan State of Myanmar (aka Burma). In the Tuanggyi District (1,400 m elevation, 20.5°N 97°E), monocultures of up to 20 ha were observed, whereas in the Ywangan District (1,850 m elevation, 21.2°N 96.4°E), avocado trees were used primarily as shade for the production of coffee (*Coffea arabica*). In both districts, symptoms of laurel wilt were observed on avocado, but no other tree. Trees exhibited sapwood discoloration, leaf necrosis and defoliation, and, according to producers, usually died within a month or two of symptom development. During the survey, isolates with the colony phenotype of *Raffaelea lauricola*, the cause of laurel wilt, were recovered from symptomatic sapwood on half strength potato dextrose agar amended with streptomycin sulfate. Colonies were hyaline and initially yeast-like, but later produced radiate aerial mycelium with mucilaginous growth (Fraedrich et al. 2008). Tests were conducted in the United States with DNA from six representative isolates from Tuanggyi and Yangon and PCR primers for two diagnostic microsatellite loci (Dreaden et al. 2014); *R. lauricola*-specific amplicons were generated for each isolate and locus, confirming the identity of the fungus associated with trees exhibiting laurel wilt in Myanmar. In a quarantine greenhouse in Gainesville, FL, three trees each of avocado and swamp bay (*P. palustris*) were artificially...
inoculated with three isolates from Myanmar and a representative isolate of *R. lauricola* from the United States. Each isolate caused laurel wilt in each of two experiments, and the pathogen was recovered from affected, but not from noninoculated control, trees; their identity as *R. lauricola* was confirmed with the above microsatellite loci (Dreaden et al. 2014). Although *R. lauricola* was previously identified in Asia, and probably introduced from Asia to the southeastern United States with its ambrosia beetle symbiont, *Xyleborus glabratus* (Harrington et al. 2011), laurel wilt had previously been reported only in the southeastern United States (Fraedrich et al. 2008). This is the first report of laurel wilt in the Asian native range of *R. lauricola* and *X. glabratus*. Laurel wilt currently affects commercial avocado production in South Florida; it clearly poses a threat to future production in Myanmar.

**References:**


Harrington, T. C., et al. 2011. Mycologia 103:1028. 10.3852/10-417 [CrossRef][CrossRef][ISI][ISI]

Cited by

**Genetic Variation in Native Populations of the Laurel Wilt Pathogen, *Raffaelea lauricola*, in Taiwan and Japan and the Introduced Population in the United States**

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