PERSEA SPECIES RESTORATION IN LAUREL WILT EPIDEMIC AREAS

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Since its introduction in 2002, laurel wilt disease has spread across the southeastern US causing significant losses to redbay (*Persea borbonia*) and swampbay (*Persea palustris*) populations and to the avocado industry in Florida. The causative fungus, *Raffaelea lauricola*, is a symbiont of the redbay ambrosia beetle, *Xyleborus glabratus*. Given that the fungus can incite disease on a wide range of *Lauraceae* species and that beetles can pick up fungal symbionts from other beetles, there is strong concern that laurel wilt will spread beyond the range of redbay. The disease poses widespread ecological threats to species that contribute to canopies throughout the tropics and subtropics. Survivor trees collected from five US coastal maritime forest locations were propagated for genetic studies and restoration efforts. Disease severity ratings of survivor tree ramets revealed six of sixty-six genotypes tolerant to artificial fungal inoculation. Inoculations of open pollenated seedlings of these genotypes are underway to help understand inheritance of fungal tolerance and susceptibility. In addition, microsatellite markers, developed to track parentage and test diversity in the redbay survivor population, are being used to access the genetic diversity and relatedness of the persea species redbay, swamp bay and silk bay (*Persea humilis*). These data add valuable information to restoration efforts.

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