

Laurel Wilt and the Redbay Ambrosia Beetle threat to avocado¹ and native trees in the Laurel Family



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Laurel wilt is an exotic disease caused by the fungus, *Raffaelea lauricola*. The disease is spread (vectored) by the exotic redbay ambrosia beetle, *Xyloborus glabratus*. The beetle and disease is also spread by moving infested wood from one location to another.



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Laurel wilt

- **Kills trees in the Laurel Family including:**
 - Fruit tree – **avocado** (*Persea americana*)
 - Native trees – redbay (*Persea borbonia*), swampbay (*P. palustris*), pondspice (*Litsea aestivalis*), silkbay (*P. humilis*), etc.

The laurel wilt and the redbay ambrosia beetle³

- First detected in Port Wentworth, Georgia in 2002. Probable introduction on infested wooden packaging material.
- Laurel wilt has now spread to Georgia, South and North Carolina, Mississippi, and Florida.
- In 2005 laurel wilt first detected in redbay trees in Duval County, Florida. Now 29 Florida counties are infested.
- In 2007 laurel wilt documented to kill avocado trees in Duval and Brevard counties.
- 2006-2011 The redbay ambrosia beetle and laurel wilt continued to spread south and west and is now in Miami-Dade County.
- **The beetle attacks healthy trees.**

- **Movement of beetle infested wood has spread the disease to new areas.**

Why is this important?

- Avocado is a common dooryard fruit tree in south Florida.
- Avocado is the number two fruit industry in Florida.
- Loss of avocado trees could adversely affect homeowners and agricultural production and the economy of Florida.
- Redbay and swampbay trees are a component of the natural forests and several butterfly species (e.g., Palmedes swallowtail butterfly) rely on them as a food source.
- Loss of the native trees will affect the natural environment.

Symptoms of laurel wilt include (see below):

1. Leaves and young stems wilting.²
2. Leaf color changing from light green to dark purplish-green, greenish-brown.
3. Dead leaves hanging on the tree.
4. Stem and limb dieback.
5. Inspection of the trunk and major limbs may show dried sap (white, crystalline powder-like material). Below the bark look for dark streaking. Dark streaks in the sapwood may indicate fungal infection. Normally this sapwood should be white to yellowish with no dark staining or streaking. In addition, small, dark holes in the sapwood indicate wood boring beetles are present.

Control of the beetle and disease

- What is being done to stop the insect and disease? Joint effort: The University of Florida/IFAS, USDA-ARS, Fla. Dept. Agriculture and Consumer Services, and other institutions are working on control tactics and management systems.

- However, to date there are no practical insect or disease control sprays or drenches to recommend. Work is in progress to identify these.

Relevant issues

- Public services like FPL and some other companies commonly prune trees on their right-of-way. Landscape companies also prune trees.
- How should wood pruned from avocado trees and native lauraceous trees be disposed of in urban areas?
- The recommendation is to cut and chip the wood on-site (that is leaving it on the property where it was cut). This reduces the chances of the beetle spreading to new areas.
- **If this is not possible then the wood should be taken to the landfill for disposal.**

Who to contact if you see symptomatic trees?

- **Division of Plant Industry (1-888-397-1517)**

Who to contact for more information?

University of Florida/IFAS –

- Miami-Dade Co. Extension at 305-248-3311 or <http://miami-dade.ifas.ufl.edu/>
- Other local County UF/IFAS Cooperative Extension Service offices can be found at: <http://solutionsforyourlife.ufl.edu/map/>
- Websites:
 - <http://edis.ifas.ufl.edu>
 - <http://trec.ifas.ufl.edu>

FDACS-Division of Plant Industry websites

- Division of Plant Industry - <http://www.doacs.state.fl.us/pi/>
- DPI – Laurel Wilt - http://www.doacs.state.fl.us/pi/enpp/pathology/laurel_wilt_disease.html
- DPI – Save the Guac - <http://www.savetheguac.com/>
- USDA Forest Service, Forest Health Protection, Southern Region - <http://www.fs.fed.us/r8/foresthealth/laurelwilt/latest.shtml>



Laurel wilt on part of canopy



Redbay ambrosia beetle



Leaf wilting/browning



White sap from boring



Bark staining from fungus

Avocado tree and laurel wilt symptoms

Laurel wilt affected swampbay



Healthy swampbay leaves



Wilted/dead leaves



Bark staining from fungus

[compiled by JH Crane, UF-IFAS, TREC, Homestead, FL; 7-26-2011]