

Scouting for ambrosia beetle
and vascular wilt infestation of commercial avocado groves

Jonathan H. Crane, Tropical Fruit Crop Specialist
UF/IFAS, TREC, Homestead

Please find below some suggested directions for tentatively identifying an infestation of ambrosia beetles and their fungal partners (pathogen).

Growers and their workers should survey their groves immediately and then weekly or more often if an infestation is detected nearby.

Symptoms to look for include:

1. Leaf and young stem wilting.
2. Leaf color changing from light green to dark green, bluish-green or 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). In any case, remove the bark down to the sapwood and 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.

Common question: Are these symptoms indicative of only redbay ambrosia beetle – laurel wilt pathogen attack? No, leaf and young stem wilting, dead leaves hanging onto the stems, and stem and limb dieback may be due to lightning strike and/or an infestation of one or more of the many ambrosia beetles we already present in south Florida and the fungi they carry or other pathogens can also cause vascular discoloration and dysfunction. However, these symptoms are suspicious for the redbay ambrosia beetle and laurel wilt pathogen and the tree should be sampled to determine if the redbay ambrosia beetle and laurel wilt pathogen are the cause of the symptoms.

In order to have a sample taken and to confirm an infestation please report the suspicious tree to the Division of Plant Industry at 305-252-4360 or 1-888-397-1517.

Pictures of an avocado tree in Brevard County with a confirmed case of laurel wilt and redbay ambrosia beetles follows.



Mature avocado tree



Dead and live leaves



Dark staining of sapwood under bark



Beetle boring holes



Leaf wilting and drying