Pruning and Topping and Hedging Avocado Groves
Current status and advisory for commercial growers

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Introduction. Previously we recommended all pruning and topping and hedging of avocado trees cease. This was based on the fact (a) 1 avocado tree in Homestead had just tested positive for the laurel wilt pathogen (LW) (*Raffaelea lauricola)* based on current testing protocols; (b) young avocado trees used in experiments had been successfully mechanically inoculated with LW and; (c) LW appeared capable of moving through the root system of one tree of the same species to another tree of the same species. However, we currently have no direct evidence that the laurel wilt pathogen can be spread mechanically on pruning equipment. This research work will take place in the near future.

Pest and disease status. To date there has been one tree in one grove positively identified with the laurel wilt pathogen using current testing protocols. None of the avocado wood samples taken in a recent industry survey has tested positive for laurel wilt. No redbay ambrosia beetle (RAB) (*Xyloborus glabratus*) has been trapped or emerged from symptomatic wood samples taken in Homestead. However, preliminary information suggests that the developmental time for RAB inside avocado wood is much longer than in redbay trees (*Persea borbonia*). Currently, 13 other ambrosia species have emerged from avocado wood samples taken in Homestead.

What we don't know:

1. If LW can be transmitted through pruning equipment.
2. If a RAB will emerge from the avocado wood samples currently taken or whether a RAB will be trapped or arrive in the near future.
3. If other ambrosia beetles besides RAB that are attracted to avocado trees could serve as a vector for any LW that is in the area.

However, based the fact that LW does not appear to be widespread at this time and that no RAB has been trapped, it appears that pruning or topping and/or hedging at this time may not be a problem or is likely to be less of a problem than if it was delayed. We are also aware that some grove owners have obligations to maintain trees below a certain height, that excessively tall avocado tree are more susceptible to storm (hurricane) damage than pruned trees, and that waiting to prune some cultivars into the fall or winter may lessons their ability to flower and fruit next season. Therefore, if pruning is necessary or desired we suggest the following precautions be taken:

1. That the grove is scouted thoroughly for signs of RAB and LW and the Division of Plant Industry (DPI) be notified if suspicious trees are located (305-252-4360 or 1-888-397-1517).
2. That pruning equipment (including toppers and hedgers) be cleaned of debris and disinfested thoroughly with a horticultural sanitizer between groves or blocks within a grove. Please see the next page (information provided by Dr. T. Schubert, DPI).
3. That pruned-off wood be broken up to decompose quickly (e.g., bush-hog) or removed and burned. This is because we do know that damaged (i.e., pruned) wood of RAB-LW host trees such as avocado are attractive to RAB and other ambrosia beetles.

Please note that as more information, sampling, and research results come to light that pruning (or topping and/or hedging) may again not be recommended.

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Suggested horticultural sanitizers for use on equipment used to prune, hedge or top avocado

Product & Active Ingredient

Green Shield®- Dimethyl benzyl ammonium chloride + Dimethyl ethylbenzyl ammonium chloride

Physan 20® - Dimethyl benzyl ammonium chloride + Dimethyl ethylbenzyl ammonium chloride

Triathlon® - Dimethyl benzyl ammonium chloride + Dimethyl ethylbenzyl ammonium chloride

Clorox® Germicidal Bleach - Sodium hypochlorite

Oxidate® – Hydrogen dioxide (hydrogen peroxide)

ZeroTol® - Hydrogen dioxide (hydrogen peroxide) + peracetic acid

Products should be used following label directions for hard surface equipment sanitation. All except the bleach should be fairly safe in terms of metal corrosion potential. Equipment surfaces should be regularly inspected for freedom from plant debris. Debris should be removed as much as possible prior to applying sanitizer. Apply product diluted according to label directions to the point of runoff to all cutting and tree contact surfaces which might injure bark. Allow 10 minutes contact time for best performance.