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Sampling declining trees

1. Equipment: pruning hand saw or hatchet, plastic zip-lock bags, permanent marker, gloves, disinfectant (Pine-Sol, 1 oz in 8 oz water), flagging tape and latex paint.
2. Information on the plastic sampling bag:
 - a. **Date**
 - b. **Your name**
 - c. **Name of grove**
 - d. **Location of the tree (row, tree number, GPS coordinates)**
 - e. **Cultivar (variety) of avocado.**
 - f. **Write the words "Laurel Wilt sample"**
3. Take a sapwood sample. The sapwood is the first 2-4 inches of wood just under the bark. Healthy sapwood is white to off-white in color. Unhealthy sapwood has dark brown to bluish to black streaks in the sapwood. **Bark is not a good sample for LW.**
 - a. Where on the tree to sample? First look to see where the canopy is showing signs of decline and then look for evidence of beetle holes – try to sample in these areas.
 - b. Sampling options
 - Sample by hatchet. The bark of avocado trees can be thick (1/2 to 1 inch or more). The outer bark is rough and greyish colored and the color of the inner bark is pink. Remove the outer and inner bark until you see either dark-stained (streaked) wood. Once sapwood is exposed take chips of the symptomatic (brown-streaked) sapwood and place in the bag for analysis. We need about ½ cup or so of this wood.
 - Sample by hand-saw. Removing the bark is not necessary. Cut a wedge-shaped (<) piece of wood such that the pointed end extends several inches into the sapwood. We need 1 to 2 pieces.
 - c. Paint the wound made by the sampling with a thick coat of fibered roofing tar to discourage additional beetle infestation. Paint will not inhibit beetle boring.
 - d. Sanitize the hatchet or hand-saw after each sample to prevent the spread of the disease. Examples of disinfectants include 1) 25% chlorine bleach (3 parts water and 1 part bleach); 2) 25% pine oil cleaner (3 parts water and 1 part pine oil); 3) 50% rubbing alcohol (70% isopropyl; equal parts alcohol and water); 4) 50% denatured ethanol (equal parts alcohol and water); 5) 5% quaternary ammonium salts. There are ammonium chloride based disinfectants (i.e. Green-Shield® or KleenGrow™) that are good disinfectants for cleaning tools. Do not mix quaternary ammonia products with bleach.
 - e. Take the labeled sample or samples to the TREC Plant Diagnostic Clinic at 18905 S.W. 280 St., Homestead, FL 33031. Please fill-in the sample form sheet at the clinic. The charge is \$40.00.
 - f. The analysis should be completed within 10 business days of sample delivery.

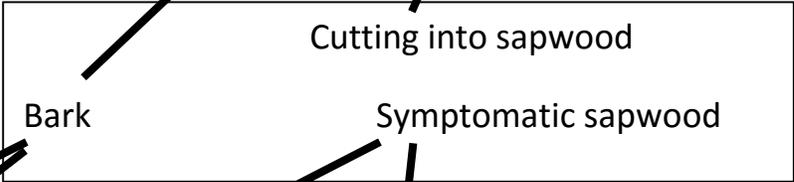


1. Avocado tree with the left section showing LW symptoms.
2. Hatchet cutting through the bark.
3. Dark-stained sapwood.
4. Chips of dark-stained sapwood.



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