

Check-Off List for Selecting Symptomatic Black Walnut to Sample for TCD

Is the suspect tree a black walnut?

Tree species that can be confused with walnut: Butternut, Tree of heaven, Pecan, Kentucky coffee tree and Honey locust in late summer

Are there other black walnut trees in the general vicinity?

If so, what is their condition (i.e. healthy, exhibiting similar symptoms to the suspect tree?)

Symptoms of Thousand Cankers Disease on Black Walnut

1. Early symptoms (late June to late August) – may appear anywhere in the tree crown (upper, middle or lower) – (See Photos A, B and C)
 - A portion of the crown may look thin
 - Look for yellowing and/or wilting leaves (“flagging”) in the crown
 - Attached, wilted and brown leaves may be observed in the older portion of the affected crown
 - Leaves may appear smaller than normal
2. Actively declining crown symptoms (See photos D, E, F and G)
 - Over several weeks, there is rapid wilting and “collapse” (of foliage) on affected limbs.
 - Cankers may be observed on branch below wilting foliage.
 - Dead limbs are relatively recent, usually died within the same season but not more than one year.
 - Tree affected the previous growing season, has little live crown the next growing season.
3. Late symptoms (See photos H, I, J, and K)
 - Affected black walnut trees die in less than 3 years after the very first flagging symptoms are observed.
 - Branches > 1 ½ inches have numerous tiny holes (smaller than pin hole borer type holes)
 - When outer bark is carefully scrapped to reveal inner bark tissue, small cankers are observed on branches. Once coalescing of cankers occurs and large, dead (cankered) areas can be found on branches and main stem.
 - Numerous, meandering tunnels and galleries of the walnut twig beetle may be observed in the bark.
 - Both the fungal cankers and the walnut twig beetle are found in the bark down to the cambial region (not into the wood).

What other walnut tree health problems may be confused with Thousand Cankers Disease?

1. Hail injury
2. Storm damage
3. Squirrel girdling of branches
4. Anthracnose
5. Cankers on branches (e.g. Nectria canker) may lead to similar decline and death of branches in the crown

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