How do I sample for oak wilt?

MSU Plant & Pest Diagnostics receives approximately 200 samples for oak wilt testing each year. Oak wilt is widespread in the Lower Peninsula of Michigan.

Oak wilt is caused by the fungus *Bretziella fagacearum* (previously known as *Ceratocystis fagacearum*). The organism moves through the xylem, which is the vascular system that conducts water throughout a plant, and the invasion results in branch wilting and eventually tree death.

If you suspect oak wilt, here are some pointers on how to collect and submit a good representative sample of your tree. Poorly collected samples and/or samples arriving in bad condition cannot be tested for oak wilt.
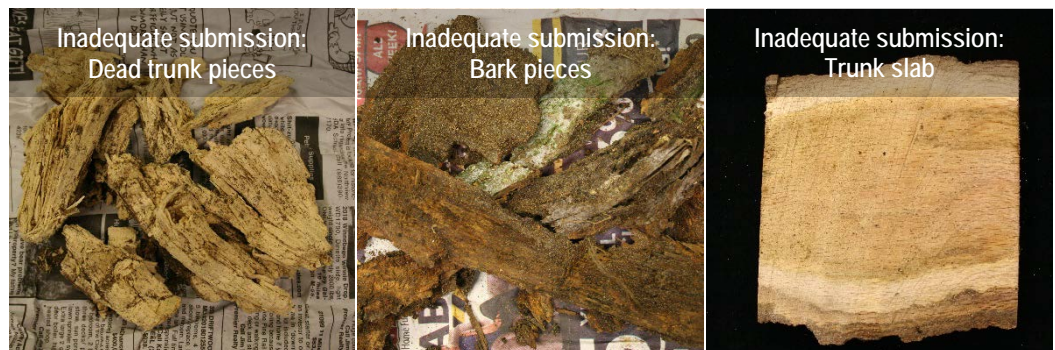
Contact us
E-mail: pestid@msu.edu
Phone: (517) 355-4536
Website: pestid.msu.edu

While you read the following information, please keep in mind that **sample quality** is critical for the success of laboratory testing and that control measures depend on proper disease diagnosis.

Texas red oak leaf symptoms
Paul A. Mistretta, USDA Forest Service, Bugwood.org
UGA1501041

Adequate oak branches for oak wilt testing

Samples should be shipped in a box with a completed form

The Do's and Don'ts for Testing:

1. **Do** cut live branches with symptomatic leaves. An adequate oak wilt submission consists of recently wilted branches of at least 6 inches long and 1-2 inches thick.
2. **Do** place oak branches in a plastic bag to retain moisture.
3. **Do** fill out a Sample Submission Form, available online at our website.

Inadequate submission: Dead trunk pieces

Inadequate submission: Bark pieces

Inadequate submission: Trunk slab

4. **Don't** send dried up or dead branches, trunk pieces or slabs, or bark pieces (see above examples of inadequate submissions).
   Even if the tree has oak wilt disease, we cannot recover the pathogen from these types of plant material. Inadequate samples can produce a *false negative*, which is a "negative" when in fact the tree has oak wilt disease.
5. **Don't** ship samples on Fridays; samples are not delivered to campus on weekends and may not arrive in the lab in good condition the following week.
6. **Don't** put the Sample Submission Form inside the bag with the plant material. This will prevent it from getting damp or soiled.

Please contact us if you need further clarification on sample collection and/or shipping.

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