

Where is thousand cankers?

Since the mid-1990s, TCD has caused the widespread death of black walnut trees in several western states including Colorado; since 2010 it has been found in at least five eastern states. As of May 2014, TCD has not been detected in Kansas; survey and detection work is ongoing.

How does TCD kill walnut trees?

- The disease is caused by a fungus carried by walnut twig beetles.
- The fungus kills small patches of tissue under the bark where the beetles attacked.
- These dead areas — or cankers — under the bark grow together when many walnut twig beetles attack the limb.
- Eventually the cankers restrict the movement of nutrients, weakening the tree.
- Black walnut trees usually die within three years after initial symptoms are observed.



Neil Isserlar, Colorado State University

Thousand Cankers Disease and Black Walnuts: a Deadly Combination!



Diane Warwick, TN Division of Forestry



Whitney Cranshaw, Colorado State University



Adapted with permission from the Missouri Department of Conservation

Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service

MF3167

June 2014

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Help Stop This Killer!

Don't bring walnut trees or untreated walnut wood into Kansas

TCD spreads when walnut wood containing walnut twig beetles is moved to new locations.

Don't move firewood

Tree-killing insects and diseases can lurk in firewood. Buy only local wood and burn it all.

Be aware of state quarantines

Several states, including Kansas, restrict the movement of walnut wood. Check with your state department of agriculture for more information.

Investigate possible TCD infections

If you believe your walnut tree is infected with TCD, take photographs of the entire tree, including a close-up of leaves and any other visual symptoms. Email photos to PPWC@kda.ks.gov or contact your Kansas Forest Service forester.

Gradually shaving bark from the branches reveals the cankers underneath

Please Note

Neither the walnut twig beetle nor the fungus has been detected within nut hulls or meat. Also, the beetle tunneling and the fungal growth and staining are primarily limited to the tissue under the bark and have little effect on the value of the wood.

What is TCD?

Thousand cankers disease (TCD) is fatal to black walnut trees. It is caused by a fungus carried by the walnut twig beetle. The name "thousand cankers" is from the numerous cankers, or infected tissue, surrounding multiple beetle entry points on branches and main stems.



The twig beetle is the size of the letter "I" on a dime

Donna Brandt, MDC



Tim Phelps, TN Division of Forestry

Do You Have a Black Walnut?

13 to 23 leaflets, pointy with toothed edges

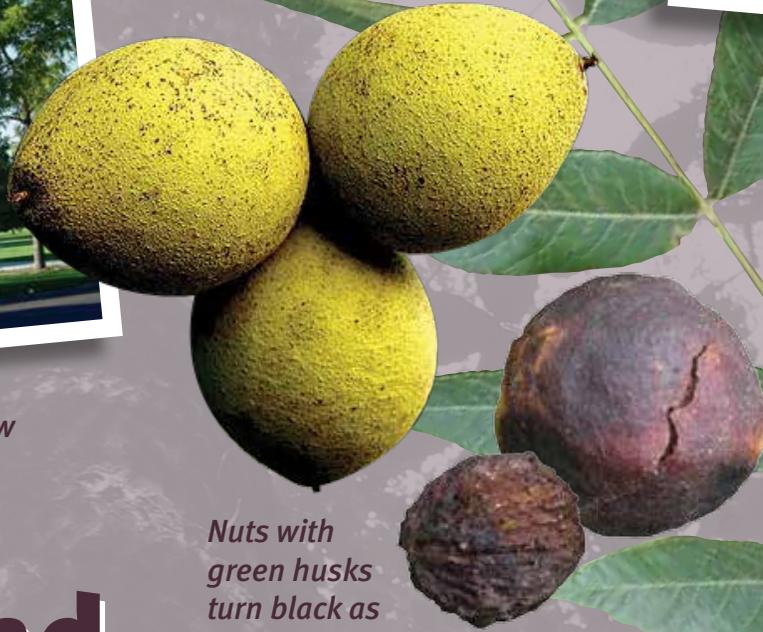
Walnut bark is rough, and when the surface is lightly scraped, it shows a chocolate brown color



Black walnut trees grow up to 90 feet tall with rounded, open crown



Simeon Wright, MDC



Nuts with green husks turn black as they ripen

Thousand Cankers Disease Signs and Symptoms

For More Information

Log onto

www.kansasforests.org/programs/health/tcd.shtml

www.agriculture.ks.gov/divisions-programs/plant-protect-weed-control/thousand-cankers-disease

Find out how you can help STOP this killer!



Steve Seybold

Early symptoms: mid-summer yellowing and wilting of leaves high in the crown; limbs die back, usually from top downward



Whitney Cranshaw, Colorado State University

As the disease progresses, it kills limbs, which may have dead, wilted leaves still attached; new sprouts may grow from roots or trunk



Whitney Cranshaw, Colorado State University

Removing bark from dying limbs 1 to 2 inches in diameter exposes dark brown cankers around beetle tunnels; cutting too deeply removes cankers