

Black Walnuts Facts



Native range of black walnut in the United States.

Uses of Black Walnut

Mature black walnuts grown in the eastern United States are valued for their wood and nut production. Products from black walnuts include high-quality wood veneer products, fine woodworking material and numerous food and non-food items processed from the nuts, bark and leaves of the black walnut.

Value of Eastern Black Walnut

In August 2010, TCD was discovered in Knoxville Tennessee, and it now threatens the survival of black walnut throughout the eastern United States. The ecological and economic impacts will be enormous. For example, Missouri estimates a loss of \$850 million in wood and nut production over a 20 year period if TCD reaches that state.

Thousand Cankers Disease and the Law

Kansas, Missouri, Michigan and Nebraska, have authorized quarantines of all unfinished black walnut material originating from the western states. Quarantine violation may result in legal penalties, fines and destruction of material.

TCD in Colorado

Known Locations of TCD in Colorado

The Colorado State Forest Service, Colorado State University and several cooperative partners are currently inventorying Colorado's Front Range communities for signs of TCD. It is currently known to occur in Boulder, Colorado Springs, Cañon City, Denver, Lyons and Pueblo and within Adams, Arapahoe, Boulder, Broomfield, Crowley, Denver, El Paso, Jefferson, Larimer and Otero counties.

Remember: Only YOU can help prevent the spread of thousand cankers disease!



United States
Department of
Agriculture

National Institute
of Food and
Agriculture



Walnut trees killed by TCD in the Denver area.

Thousand Cankers Disease of Black Walnut



How to Identify and Prevent the Spread of Thousand Cankers Disease



www.thousandcankersdisease.info

What is Thousand Cankers Disease?



A black walnut showing flagging, a symptom of TCD.

Thousand cankers disease (TCD) is a new and lethal disease of walnuts in Colorado. It is caused by a fungus that is carried from tree to tree by the very small walnut twig beetle. Once the fungus is introduced into the tree, it

colonizes tissue surrounding beetle galleries and causes small dead areas in the bark called cankers. Trees are eventually killed by overwhelming attacks of the walnut twig beetle and subsequent cankers that girdle branches

Currently, there are no effective methods for saving trees with thousand cankers disease. Infected trees will die. You must help prevent the spread of the walnut twig beetle into areas where it does not yet occur. The beetle spreads to new locations primarily by moving infested wood including: logs, firewood, lumber and wood chips.

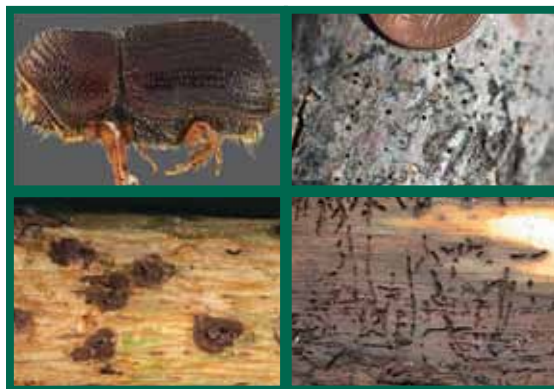
This brochure will help you understand the risk posed by TCD, how to identify TCD and where to get assistance.

Identifying TCD

Identifying Symptoms

Inspect walnuts regularly for symptoms of thousand cankers disease including:

- Sparse foliage or thinning of the canopy
- Leaf yellowing or wilting or branch dieback
- Excessive staining of the bark surface
- Presence of beetle holes in bark or galleries in branches or the trunk
- Presence of brown to black tissue surrounding beetle galleries inside the bark



Top left: Walnut twig beetle (*Pityophthorus juglandis*). Photo: Jim LaBonte, Oregon Department of Agriculture. **Top right:** Beetle entrance and exit holes. **Bottom left:** Cankers caused by *Geosmithia morbida*. **Bottom right:** Beetle galleries (tunnels under the bark).

Verifying TCD

To verify that dieback or mortality in a walnut is due to thousand cankers disease contact your city forester or local tree expert for diagnostic help. For more resources on TCD, please visit: www.thousandcankersdisease.info, or contact your local state forester at the Colorado State Forest Service: www.csfs.colostate.edu.

Responding to TCD

Taking Action

- Cut down any walnuts that have been confirmed to have TCD no later than August 1, prior to peak dispersal flights of the walnut twig beetle.
- Immediately dispose of walnut wood to prevent spread of TCD.
 - ◆ Take the wood to a local landfill
 - ◆ Take wood to an approved storage site in your city or county
 - ◆ Small diameter trees may be chipped, but chips must be disposed of in a landfill or approved storage site

DO NOT TRANSPORT, SAVE OR SELL LOGS OF BLACK WALNUT FOR FIREWOOD, LUMBER OR OTHER USES!

Trees killed by TCD support development of large numbers of walnut twig beetles. Moving a single log with live beetles inside can start an outbreak in a new location.



More than 23,000 adult walnut twig beetles (brown sediment in vial) emerged from these two logs.