

Thousand Cankers Disease of Black Walnut

Disease discovered in the Northeast

U.S. Department of Agriculture
Forest Service
Northeastern Area State and Private Forestry



Description: The walnut twig beetle *Pityophthorus juglandis* and the canker-causing fungus *Geosmithia morbida*, together known as Thousand Cankers Disease (TCD), were discovered in 2011 in Bucks County, PA, north of Philadelphia. This is the first reported find in the Northeastern United States and the third known infestation in the East, after Knoxville, TN, and Richmond, VA. TCD affects and kills eastern black walnut trees. After 8-10 years of repeated beetle attacks, multiple cankers merge, suggesting the common name. TCD was first seen throughout the western United States in the 1990s.

Key Issues:

- Eastern black walnut, one of the most valuable species for veneer, lumber, woodworking, and nuts, could disappear from its native range.
- A single black walnut tree can sell for tens of thousands of dollars.
- Many mills and hundreds of workers depend on high value walnut logs.
- Exports of quality logs to China helps to offset the U.S. trade deficit.
- Individuals and companies have invested in walnut plantations and managed woodlands.
- It is important to take these steps:
 - Determine how the pest complex behaves in native walnut woodlands and plantations
 - Provide information and education to landowners and managers
 - Standardize survey protocols for early detection to retard the spread of TCD
 - Develop management protocols

Accomplishments:

Forest Health Staff of the Northeastern Area State and Private Forestry, in cooperation with partners, ...

- Removed known TCD-infested trees and debris (sanitation)
- Intensified steps to retard spread at the Bucks County site
- Hosted a TCD workshop for the USDA Forest Service's Northern Research Station, universities, industry, landowners, managers, and regulators, to develop methods and determine research needs.
- Confirmed the effectiveness of the beetle lure and trap.
- Updated the online version of the national [Pest Alert](#)
- Presented information sessions to regional groups including States and National Forests

Budget History				
Item	FY 2009	FY 2010	FY 2011	FY 2012
Symposium	\$6,000		\$5,000	
Pest Alert (25,000 copies)		\$1,300		
Pest Alert Reprint (110,000 copies)		\$2,900	\$1,700	
Detection surveys			\$180,000	\$78,000
Totals	\$6,000	\$4,200	\$186,700	\$78,000

Future Direction:

- Complete additional followup treatments in Bucks County, PA
- Develop effective methods for TCD management and control
- Assist in refining insect traps
- Participate in multi-State early detection surveys

- Promote management of walnut to reduce stand vulnerability
- Test various management alternatives, such as prevention, treatments, sanitation, and disposal
- Initiate black walnut resistance trials

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12/20/2012