



# Thousand Cankers Disease Update

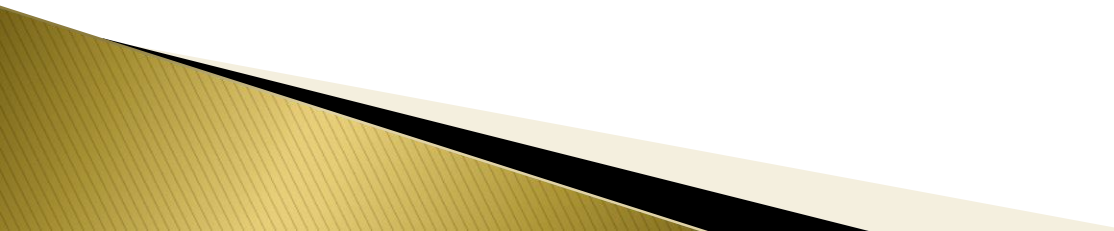
Missouri Invasive Forest Pest Council  
January 30, 2016

Collin Wamsley  
State Entomologist  
Missouri Department of Agriculture





# Tennessee

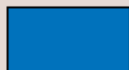
- ▶ 2010
  - ▶ First detection in the eastern U.S.
  - ▶ Homeowner report in Knoxville
  - ▶ No new counties with TCD or WTB since 2014
  - ▶ Good rainfall in recent years. Infested trees partially recovering from serious decline.
- 



# Tennessee

## Thousand Cankers Disease

### Quarantine and Buffer Regulated Areas



#### Thousand Cankers Disease Quarantined Areas

**Anderson, Blount, Jefferson, Knox, Loudon, Morgan, Rhea, Sevier and Union counties.**

Citizens in these counties cannot move walnut tree products and hardwood firewood outside the quarantined counties.



#### Thousand Cankers Disease Buffer Regulated Areas

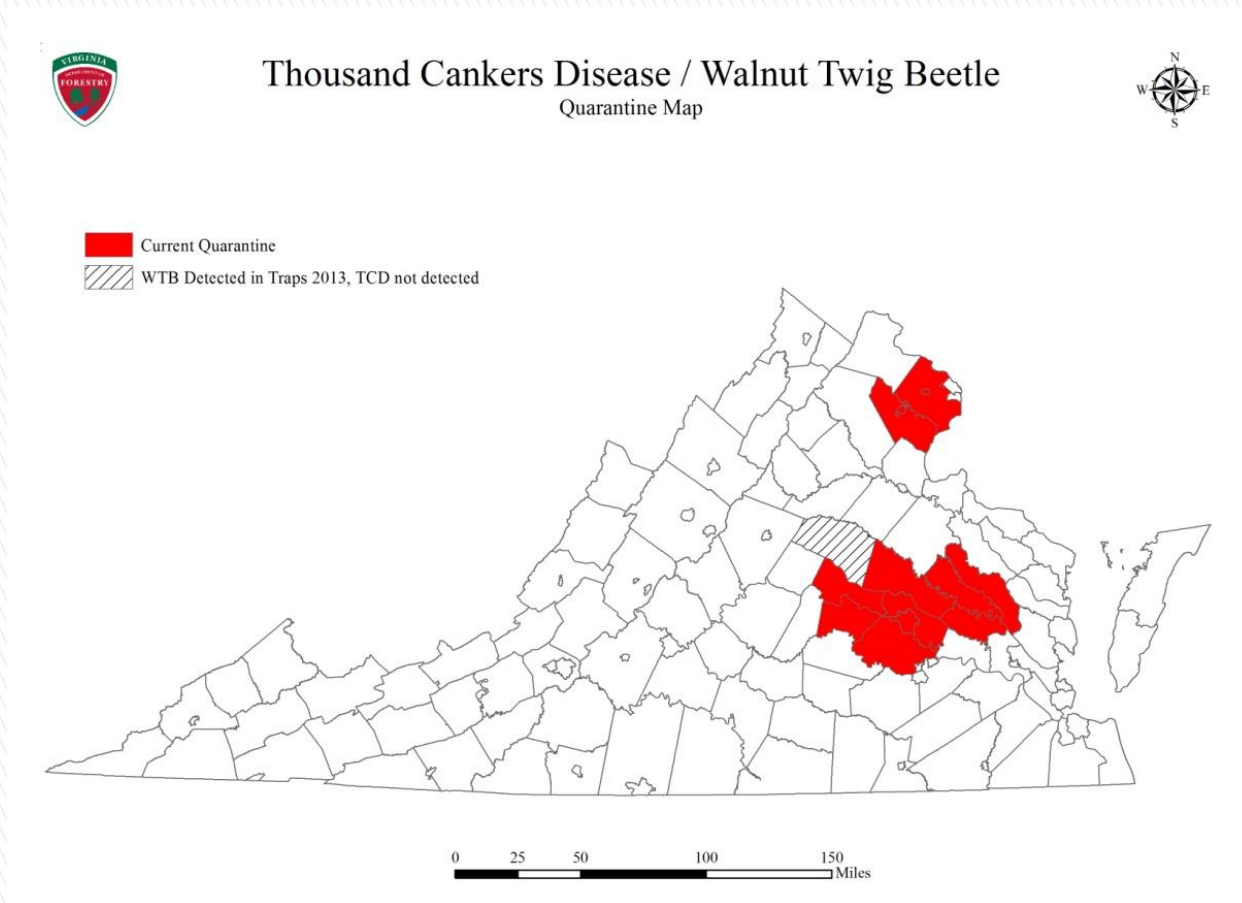
**Bledsoe, Bradley, Campbell, Claiborne, Cocke, Cumberland, Fentress, Grainger, Greene, Hamblen, Hamilton, Marion, McMinn, Meigs, Monroe, Polk, Roane, Scott and Sequatchie counties.**

Citizens in buffer counties/areas can move walnut tree products and hardwood firewood within buffer counties, but not outside. Product can also be moved into a quarantine county, but not taken back out.



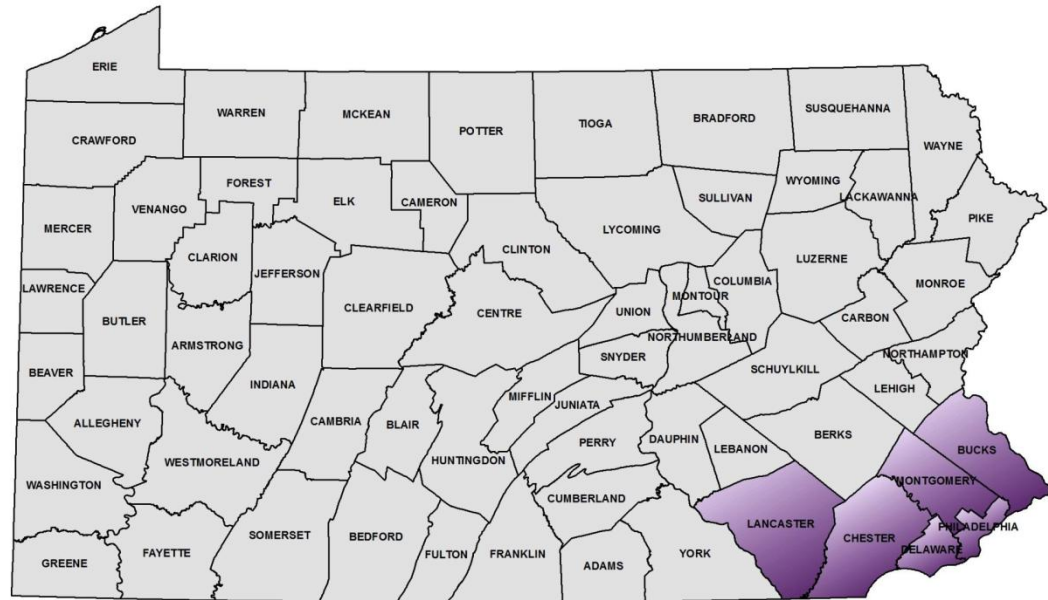
# Virginia

- ▶ First detection in 2011 in Richmond area.
- ▶ Detection of WTB in Louisa county in 2013 but no detection of TCD.



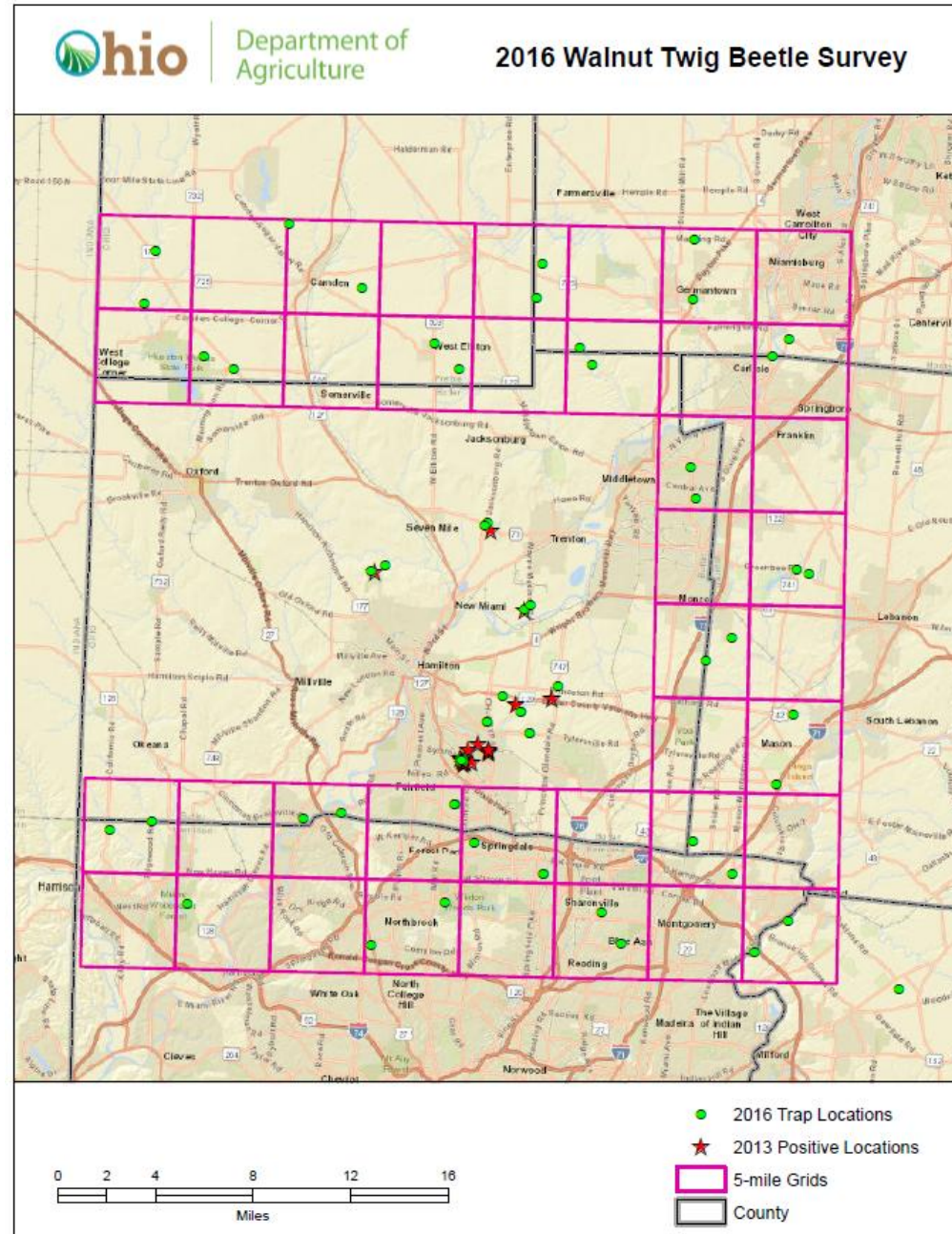
# Pennsylvania

- ▶ First detection in 2011
- ▶ Landowner report
- ▶ No new counties added since 2014
- ▶ Years of adequate moisture resulted in lower beetle detections and some recovery of trees.



# Ohio

- ▶ Butler County, 2012
- ▶ No WTB detections since 2013





# North Carolina

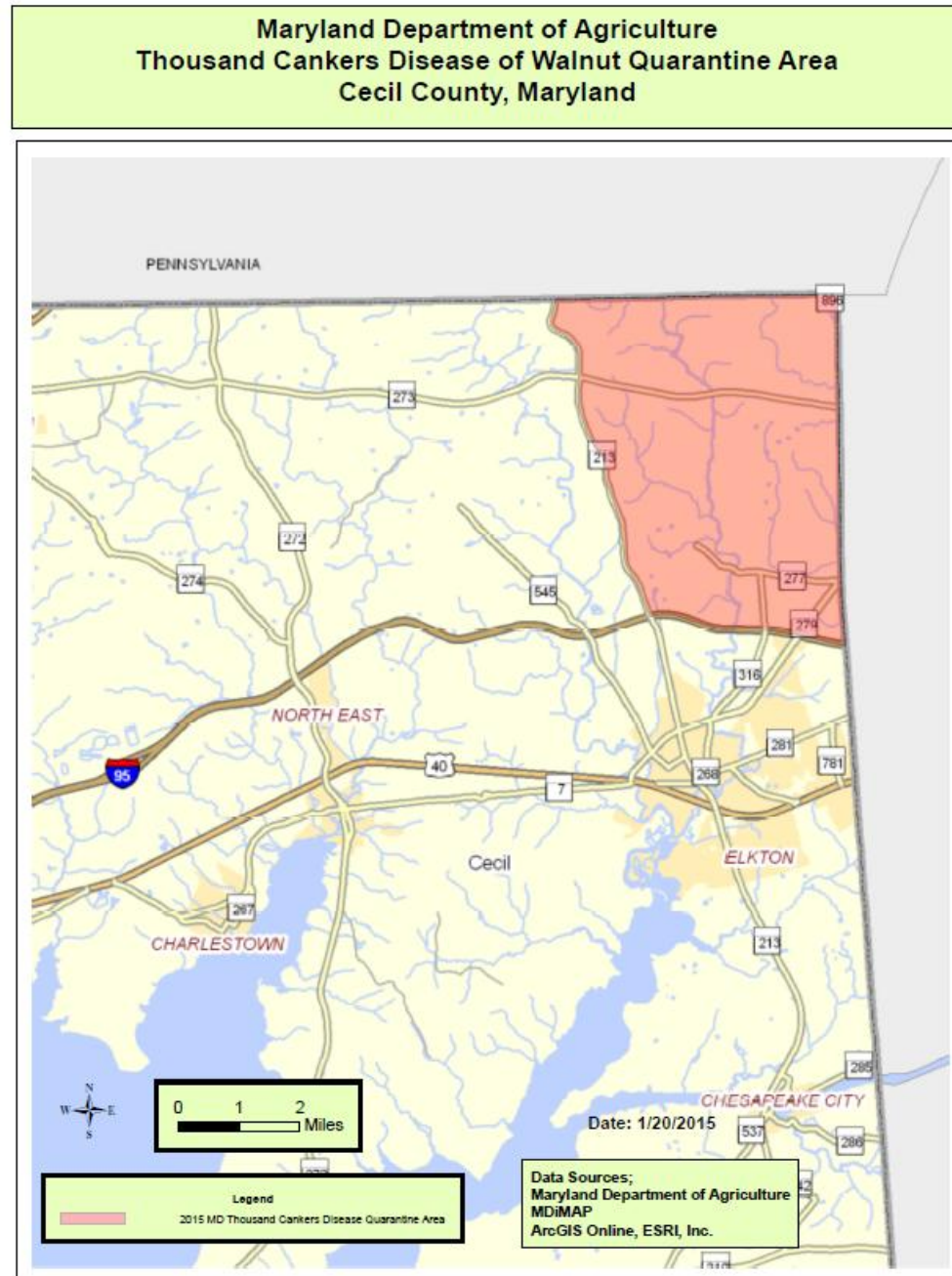
- ▶ Haywood County, 2012
- ▶ Trees are still standing but in decline
- ▶ Appears to not be spreading very far





# Maryland

- ▶ WTB first detected in 2013
- ▶ TCD confirmed from bait logs in 2014
- ▶ Later detections of WTB only 100's of feet away.
- ▶ No damage to walnut trees noted
- ▶ Cecil county is quarantined



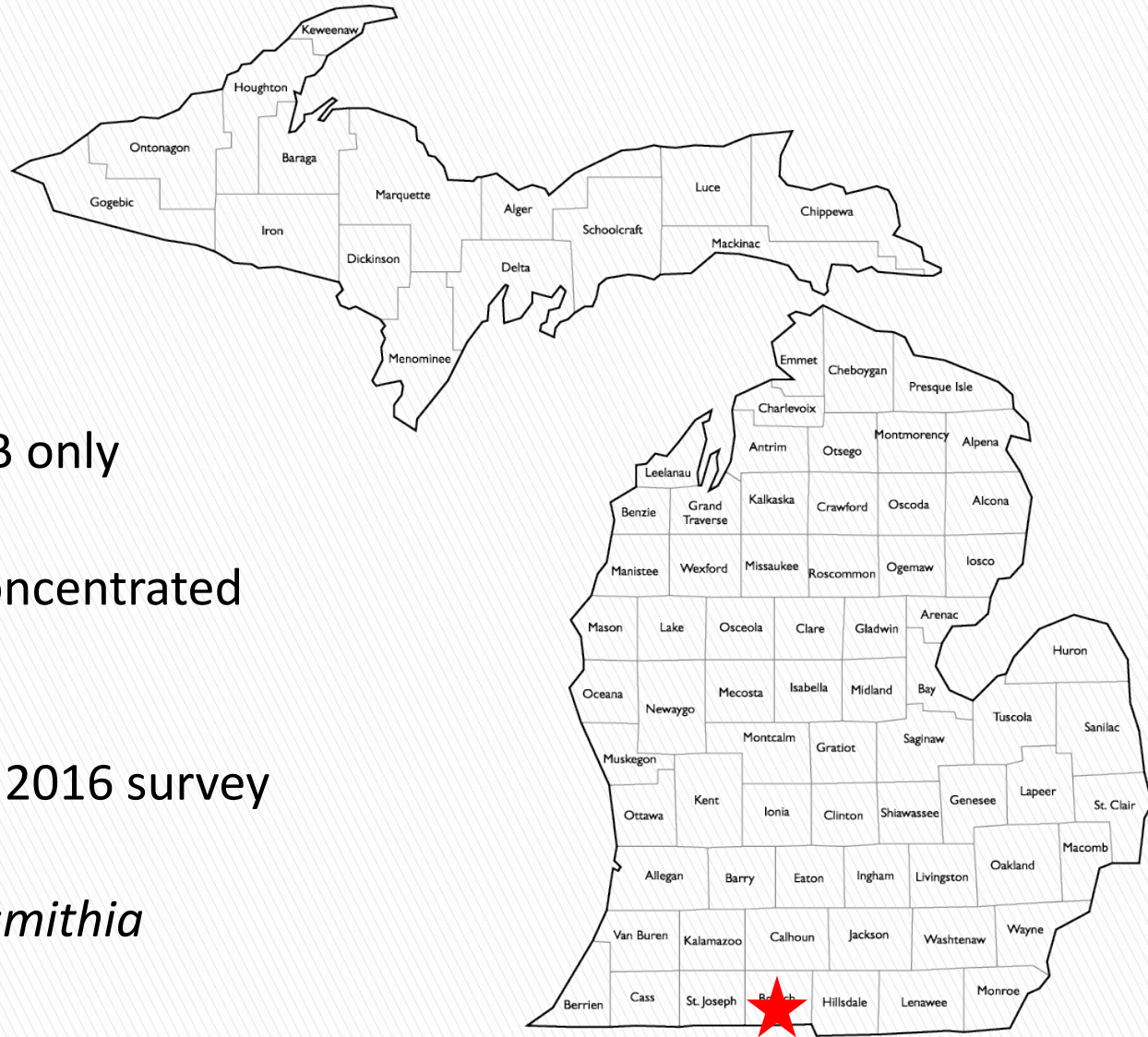
# Indiana

- ▶ *Geosmithia morbida* detected on *Stenomimus* weevils in 2013 in Brown County
  - This site has been heavily trapped since then and no WTB have been detected.
- ▶ WTB detected in Franklin County in 2014
- ▶ WTB detected Johnson County in 2015
- ▶ To date, no diseased trees have been detected in Indiana.



# Michigan

- ▶ Branch County
- ▶ 2015
- ▶ Lindgren trap, 1 WTB only
- ▶ Following up with concentrated survey in the region.
- ▶ No WTB detected in 2016 survey
- ▶ No evidence of *Geosmithia morbida* or TCD



# Illinois

- ▶ Clark, Douglas and Franklin/Jefferson Counties
- ▶ 2016
- ▶ *Geosmithia morbida* detected on *Xylosandrus crassiusculus*, *X. germanus*, and *Stenoscelis brevis*
- ▶ No walnut twig beetles or TCD have been found
- ▶ Trap trees used in research project
- ▶ Reared insects and processed for fungus
- ▶ Illinois Dept of Ag intensifying survey efforts in those regions
- ▶ All on DNR lands. Prohibiting movement of walnut wood off of these lands.





# Observations

- ▶ Last three years have generally had good moisture
- ▶ Some infested trees have partially recovered
- ▶ Limited or no beetle detections in some infested areas last three years

# Questions

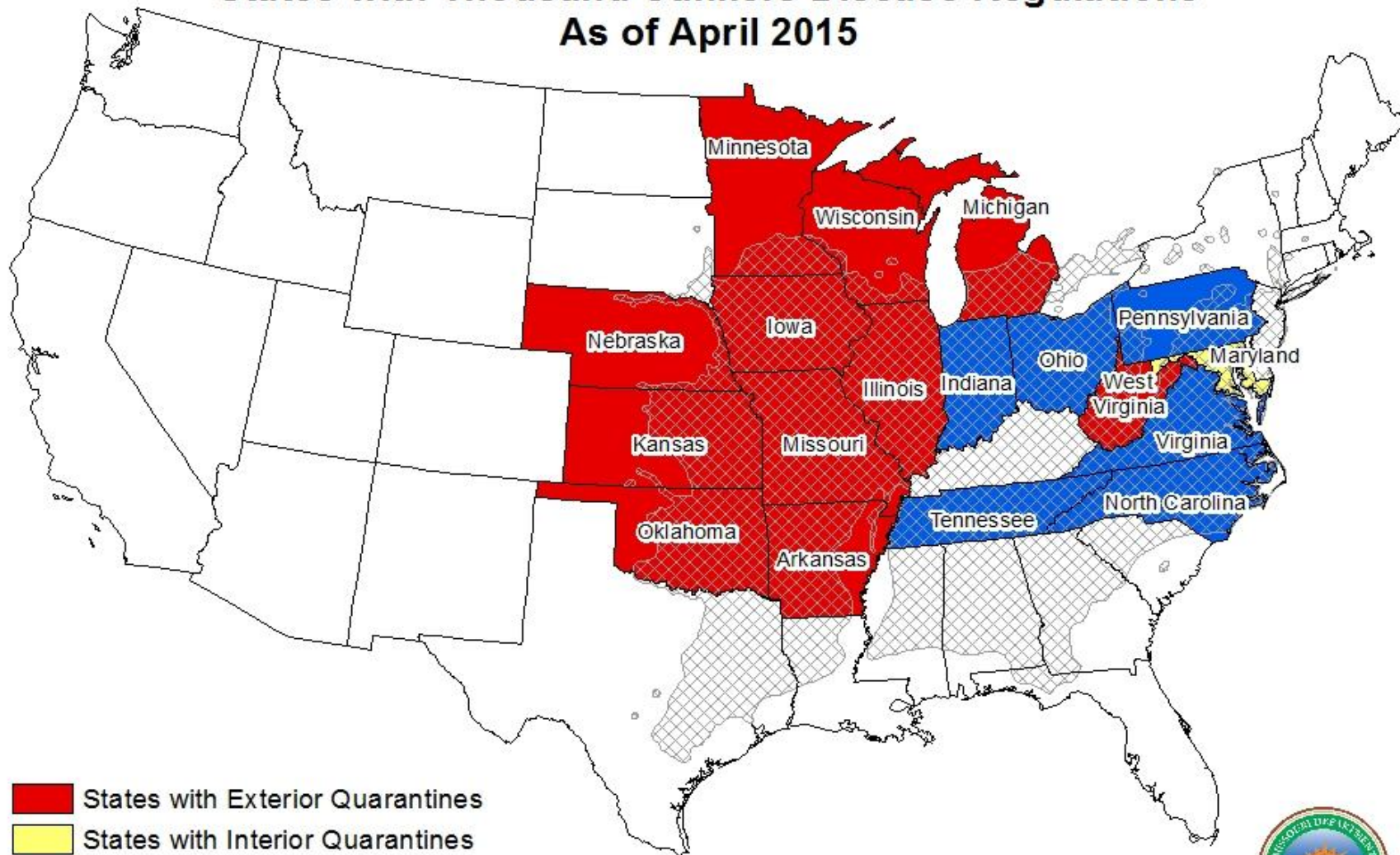
- ▶ Is susceptibility to TCD dependent on soil moisture and site conditions?
- ▶ Is the *Geosmithia* fungus widespread?
- ▶ Can other beetles effectively spread *Geosmithia*?





# TCD in Italy

- ▶ First Detected  
September 2013
  - Vicenza, Veneto Region
  - ~80 year old trees in a garden
  - ~17 year old trees in nearby walnut plantation
  
- ▶ *P. juglandis* and/or *G. morbida* detected in 3 other regions since then.
  - EPPO Bulletin (2016) 46 (2), 335-340



## States with Thousand Cankers Disease Regulations As of April 2015

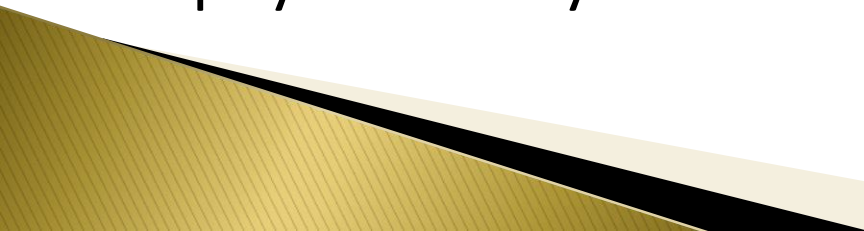


-  States with Exterior Quarantines
-  States with Interior Quarantines
-  States with Interior and Exterior Quarantines
-  Black Walnut (*Juglans nigra*) Native Range

Digital Compilation by Elizabeth Retherford  
Missouri Office of Administration,  
Information Technology Services Division,  
Office of Geospatial Information



# State Regulations

- ▶ 2009-2010 many central states worked together, along with advice from TCD researchers to develop uniform TCD regulations
  - ▶ Very little known at that time
  - ▶ Very restrictive regulations
  - ▶ States reviewing current regulations in light of phytosanitary treatment research
- 



# **Thousand Cankers Disease Research & Management Operational Meeting**

**June 13–15, 2017**

**Lafayette, Indiana**

**Registration Begins March 2017**

