Thousand Cankers Disease Panel
National Plant Board
2013 Annual Meeting
Louisville, KY

TCD Research in Missouri
• Dr. Sharon Reed and Dr. Jim English – UM-C
  – Determine possible roles of other beetles and fungi in the TCD disease complex.
• Dr. Mark Coggeshall – UM-C Center for Agroforestry.
  – Largest collection of black walnut
  – Working with other researchers to identify resistant cultivars for wood and nut production.

Regulatory Efforts
• Enacted State Interior Quarantine April 2010.
• Outreach!
  – Mailings
  – Educational Workshops
  – Outreach Products
  – Keeping industry informed and engaged.

Enforcement Efforts
• Missouri Highway Patrol
  – Commercial Vehicle Unit
  – Receives annual training on EAB, TCD, IFA quarantines
  – Multiple 24/7 contact numbers if a truck is stopped, receive immediate instruction
  – Was also instrumental during 2012 hay shipments due to the drought (fire ant introductions)

Cooperating Agencies
• Missouri Invasive Forest Pest Council (MIFPC)
  – Co-chaired by MDA (state entomologist) and Missouri Dept of Conservation (forest entomologist).
  – Member agencies:

  - Missouri Department of Conservation
  - University of Missouri Extension

Cooperating Agencies
• MIFPC – Partners and Stakeholders
  – Government Agencies
    • Missouri Division of Tourism
    • U.S. Army Corps of Engineers
    • Natural Resources Conservation Service
    • Fish and Wildlife Service
    • National Park Service

  – Non-Governmental Organizations
    • Conservation Federation of Missouri
    • Missouri Consulting Foresters Association
    • Missouri Forest Products Association
    • Missouri Forest Resources Advisory Council (MoFRAC)
    • Missouri Landscape and Nursery Association
    • Missouri Municipal League
Needed Quarantine Revisions

• CPB will begin discussing quarantine updates
• Compliance agreements not addressed in the exterior quarantine, but issued first CA this year.
  – Based on CPHST fumigation research
  – Agreement modeled after Ohio, Illinois and Kansas documents
  – Must travel with state phyto certificate from origin state.
• Address the “squared edge” issue

• Logs are debarked then sawn into boards.

• Industry concern about “squared edge” requirement
• Loss of about 20% of boardfeet if remove “wane”
• Tour of process that walnut lumber undergoes

Boards are stacked and placed in the steam chamber for approximately 3.5 days at 185-190°F.

The stacks of boards are then removed and air dried outdoors for several months to a moisture of approximately 30%.

The boards are then kiln dried for approximately 30 days to a moisture of 6-8%.
• The KD process starts at around 95°F with a maximum heat during the cycle of about 170-180°F.

• Once the boards are kiln dried they are kept at 6-8% moisture.

• This moisture range is necessary for the end customers who will use the wood for manufacturing.

Funding and Staffing

• **STATE AND FEDERAL FUNDING**
  - Federal = Farm Bill Survey Funds
  - State
    - Additional Survey Funds
    - Full-time Forest Pest Program Coordinator
      - Manages TCD and Gypsy Moth Survey Programs
      - Firewood “Survey”
      - Other Quarantine Issues
  - **Diagnostic Lab**
    - MOA has very limited capacity: 1 half-time technician
    - No NPDB lab currently in the state
    - State forestry dept lab also limited capacity
Walnut Twig Beetle Detection in Butler County Ohio

Dan Kenny, Acting Assistant Chief
Division of Plant Health
July 31, 2013

Walnut Twig Beetle Detection
Butler County, OH

- During the summer and fall of 2012, the Ohio Department of Natural Resources (ODNR) and Ohio Department of Agriculture (ODA) conducted visual surveys (85) and WTB trapping (28) at high risk sites throughout Ohio.

Walnut Twig Beetle Detection
Butler County, OH

- Specimens from the traps were pre-screened by Dr. Dan Herms’ lab in Wooster, OH (OSU-OARDC)
- Suspects were sent to Colorado State University for confirmation
- In December of 2012, confirmation was received by Dr. Don Bright at CSU that 8 WTB had been detected in the specimens sent from Ohio.
- Confirmation -12/5/2013

Walnut Twig Beetle Detection
Butler County, OH

- The business is an importer of Walnut materials from western U.S.

<table>
<thead>
<tr>
<th>Collection of the specimens vs. western U.S. origin inventory</th>
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<tbody>
<tr>
<td>ODNR WTB Trap inspection dates</td>
</tr>
<tr>
<td>7/16/2012 Initial Placement</td>
</tr>
<tr>
<td>7/30/2012 5 beetles</td>
</tr>
<tr>
<td>8/23/2012 1 beetle</td>
</tr>
<tr>
<td>9/6/2012 0 beetles</td>
</tr>
<tr>
<td>9/20/2012 2 beetles</td>
</tr>
</tbody>
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Walnut Twig Beetle Detection
Butler County, OH

- Wood processing facility in Butler County

Response to the WTB Detection

- On Dec. 7th a quarantine hold was placed on all Walnut materials on the site where the WTB were detected.
- Consulted with other states and researchers with Universities, USFS and APHIS.
  - Could cut logs be infested?
  - Does veneering kill TCD/WTB?
  - How can we treat the logs?
- Worked with the business to set up a fumigate or process the quarantined materials.
Mitigation

- Decided to use rates/schedule in the USDA Treatment Manual for oak wilt for the commingled logs based on Scott Myers, USDA-APHIS data
- All other material was processed into veneer, or burned. (completed Jan. 31, 2013)
- Fumigated 1516 logs, 701 processed into veneer

Response to the WTB Detection

- Initiated surveys of the logs and surrounding areas out to a one mile radius.
- Pulled samples of a nearby walnut in decline and attempted to rear out insects or isolate fungus. (nothing found at that time)

Current Delimit Trapping Plan

- Around 100 traps to be placed in a zone between 5 and 10 miles from the original detection site
- Traps will be deployed for 6-8 weeks
Spring Trapping in 2013 cont.

• Specimens are being screened by Dr. Steven Seybold with USDA FS at UC Davis
• Dr. Seybold is planning to do a study of the population genetics on the beetles
• This will give us a better understanding of where this population(s) originated

Quarantine Regulation

• Had been working with ODNR, National Plant Board and industry groups to draft a quarantine rule since 2010.
• Pushed forward a rule in May of 2012 that took effect September 7, 2012.
• Currently amending the rule to add Butler county and other newly detected areas

Quarantine Regulation

• Closely mirrors the regulations of the other Midwestern states.
• Restricts importation of walnut materials from infested areas at the county level.
• Allows for compliance agreements.

Quarantine Compliance

• For Ohio origin walnut
  – Butler county origin walnut would need to have a treatment applied (fumigation, KD, steaming, etc.) and be under compliance agreement to be moved out. It would need to comply with destination and transiting State’s requirements.
  – Some states require certification of Ohio walnut of any origin.
  – Contact ODA for specific scenarios

Questions?

Ohio Department of Agriculture
Plant Health Division / Plant Pest Control Section
8995 E. Main St.
Reynoldsburg, OH 43068
614-728-6400
Fax 614-728-6453
E-mail: plantpest@agri.ohio.gov
Website: http://www.agri.ohio.gov
Compliance agreement stipulations

- Articles originating inside a regulated area destined for Ohio:
  - Each shipment of articles shall be treated in accordance with USDA-APHIS-PPQ standards for Fumigation Treatment (T312-a). 100% Methyl bromide at 15 pounds per 1,000 cubic feet for 24 hours at or above 40°F.
  - Each shipment shall be accompanied with a State Phytosanitary Certificate listing the fumigation in the Treatment Section of the Phytosanitary Certificate.
  - Each Phytosanitary Certificate shall declare: “The article was officially inspected after harvest and found to be free of the fungus Geosmithia, the Walnut Twig Beetle, and has been stored in such a manner to retain freedom from the Walnut Twig Beetle in storage and transit.”
  - The state and county(s) of harvest shall be listed on the Phytosanitary Certificate.

Compliance agreement stipulations continued:

- The state and county(s) of harvest shall be listed on the Phytosanitary Certificate.
- Completion of treatment shall be no longer than five (5) days prior to shipment arrival in Ohio.
- Notification of the intended transport shall be given to the Ohio Department of Agriculture by an electronic version of the State Phytosanitary Certificate no less than twenty-four (24) hours prior to the arrival of the shipment in Ohio.
- Each shipment shall be accompanied with a certificate stating the article is under a compliance agreement with the Ohio Department of Agriculture.
- Each shipment must comply with any applicable regulations of the origin state or any state which will be transited.
- The regulated article must be protected against re-infestation at all times during transit by means of an enclosed trailer, full enclosure by tarps, or other method approved by the Ohio Department of Agriculture.

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