Invasive Ambrosia Beetle Conference
The Situation in California
August 12 – 14, 2012

Meeting sponsored by:

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Invasive Ambrosia Beetle Conference
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Session 7

Planning for the Future

Identifying research needs, outreach priorities, funding opportunities and continued collaboration

Lessons Learned from the Laurel Wilt – Redbay Ambrosia Beetle Situation in the Florida Avocado Industry

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Key components

- Early communication of a new pest
- Relatively quick threat assessment
- Regulatory assistance as quickly as possible
- Obtaining funding for research and extension
- Building partnerships among the industry, regulatory agencies, research and educational institutions, and governmental/legislative representatives
- Dealing with both the insect and disease component of the threat

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Early communication

- Alert to potential threat (new pest)
  - Across institutions – regulatory and educational and research
  - At the local, state, and federal levels
  - Difficult when so many new pests occur within a short time-frame
  - Difficult when little is known or published about the pest complex in its native habitat let alone in its new habitat
  - Avocado researchers and industry
    - 2002 intro>2003-2004 RAB-LW connection>threat to avocado late 2005/early 2006 – trees to Ft. George Island, FL
    - Dooryard avocado tree in Duval County, Florida

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Assessment of threat

Assessing the threat ASAP

- Cooperators – FDACS, Div. of Forestry and Div. of Plant Industry; UF/IFAS, TREC; UF/IFAS, SFRC and; UF/IFAS, Dept. Plant Pathology
- Summer 2006, planted 16 small 'Donnie' avocado trees on Ft. George Island, FL
- Confirmed infested with RAB and LW by Feb., 2007
- Sept., 2007 large dooryard avocado tree confirmed infested with LW
- Avocado artificially inoculated with LW wilted/died
- RAB attacked avocado of varying genetic backgrounds

AE Mayfield, JE Peña, JH Crane, JA Smith, CL Branch, ED Ottoson, and M Hughes. 2008. Ability of the redbay ambrosia beetle (Coleoptera: Curculionidae: Scolytinae) to bore into young avocado (Lauraceae) plants and transmit the laurel wilt pathogen (*Raffaelea* sp.). Fla. Ent. 91:485-487.

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Building and maintaining partnerships

- Avocado industry
- Regulatory agencies (local, state, federal)
- Research institutions – state, federal, and private
- Government (legislative, funding)
  - Local
  - State
  - Federal

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Regulatory assistance

- Florida Dept. of Agriculture and Consumer Services
  - Division of Forestry/Florida Forest Service
    - Urban/natural area; extension - leaflet (Fla. Forest Serv.)
  - Division of Plant Industry
    - Pest Alert, websites, and outreach
    - Trapping (traps, sentinel trees) (USDA-DPI/CAPS)
    - Sampling suspect trees, sentinel monitoring
    - Firewood and unprocessed wood products (Chpt 5B-65)
    - Laurel Wilt Working Group – regulatory, research, and extension
- USDA-APHIS
  - National regulations concerning movement/introduction of wood products
  - Development of Recovery Plan for Laurel Wilt of Avocado
- Miami-Dade County
  - Local regulations, e.g., burn permitting – Fire Marshal
  - Liaison with Dept. of Envir. Management – tree removal

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Research funding

- Obtaining initial research funding
  - Demonstrating the need (threat)
  - Emergency funding
    - Florida Avocado Administrative Committee
    - UF/IFAS Office of the Dean for Research
    - USDA-APHIS-PPQ
- Obtaining sustained funding
  - Competitive grants
    - USDA
    - FDACS Block Grants
  - Targeted funding – local, state and federal

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Extension – education, outreach, and coordination

- Liaison among industry, regulatory, research, and governmental entities
- Informational and educational outreach
  - Research funding advocacy
  - Industry outreach – education, information, training, and coordination
    - Translating and adopting research results into a workable system with the industry
  - Governmental (legislative) and regulatory agency - education, information, training, and coordination

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Working with the industry

- Formal organization – Florida Avocado Administrative Committee
  - Large formal meetings – updates, workshops, etc.
  - Subcommittees - LW
    - Formal: board and non-board members
    - Informal: experienced producers and field managers
- Collaborative outreach
  - Research priorities and initiatives
  - Extension planning and recommendations
  - Brainstorming among researcher-extension and growers

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Balance

- It is not all about the disease
- It is not all about the insect
- It is about them both
- Solutions to insect-vectored diseases require substantial funding for both the insect vector and disease pathogen.
- A lopsided effort may miss opportunities for progress in the understanding, mitigating, and eventual control of the threat.

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A moving target

Laurel wilt

- Specific diagnostic procedures may differ for detecting the disease depending upon the host
  - What works for redbay trees did not work for avocado
- Field diagnostics

Redbay ambrosia beetle

- Potential for additional vectors to develop complicating control tactics

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What have we learned

- The situation is complicated
- Needs immediate resources
  - Determine the threat level
  - Jump start the information gathering
    - Survey
    - Short-term control
- Needs sustained funding for research and extension programs
- Collaboration among and with
  - Scientific community
  - Regulatory agencies
  - Industry
  - Legislative sector

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¿Questions?

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