Prospects for areawide management of coffee berry borer in Hawaii

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Importance of coffee industry in Hawaii

- The coffee industry in Hawaii has a long and rich history that rivals bigger industries such as sugar cane and pineapple.
- While not the largest industry in terms of economic value to the state it has been part of the cultural landscape for more than 150 years.
- Niche market value of Hawaii-grown coffee continues to increase statewide.

Kona Historical Society
Challenges to the coffee industry

- 1850’s - Labor shortages, pests, disease, droughts
- 1900  - Competition with sugar in Hawaii and (later) bulk coffee growers worldwide
- World Wars, depressions (1929)
- 2010 - CBB
Eradicate or manage

- **Eradication**
  - Costly
  - Needs state and federal government help
  - Strict quarantines on imports
  - Tools for eradication may be different from control

- **Control/management**
  - Can be done by individual farms
  - Cost proportional to effort and desired outcome
  - Continued effort as long as pest is present
  - Areawide management can be effective
Why areawide management?

- Pests such as CBB do not recognize farm boundaries
- Small-farm nature of many coffee farms make it difficult to control if neighbors do not control their properties
- Large plantation can experience large losses if pest is not controlled on an areawide basis
- Areawide management can be more sustainable than farm-by-farm methods
- Has been used in other countries successfully
Tools available for areawide management

- While not exhaustive or singly effective, tools are available to manage CBB
  - Lures and traps
  - Sanitation
  - Chemicals (none registered in Hawaii ?)
  - Microbials such as Beauveria
  - Quarantine treatments
    - Fumigation
    - Bagging
    - Freezing (pending)
  - Biological controls?
Cost benefit of areawide management

- Areawide management of pest can be just as cost effective or more effective than farm-by-farm control
  - Why?
    - Adjoining properties can buffer your farm for repeat invasions
    - Costs of labor and/or chemicals/microbials could be reduced if neighbors work cooperatively
What are the prospects for successful areawide management of CBB in Hawaii

- Areawide control can be very successful....but
  - It depends on you the grower and neighbors
  - Desire to get this pest under control (attitude)
  - Continued support from agricultural research, teaching and regulatory entities to improve methods for control
  - luck and hard work!
What should we be doing now?

- Maintain quarantine to prevent movement
- Understand biology of CBB (especially in HI)
- Evaluate potential control measures (one size does not fit all)
- Maintain effective extension / outreach activities
- Continue research to further improve methods
- Communicate among growers, processors, researchers and regulatory/ task force members
- Learn