

Areawide IPM Overview for CBB Mitigation

Lisa Keith

Research Plant Pathologist, ARS

Kelvin Sewake

Interim Associate Dean & Associate Director for Cooperative Extension Service,
University of Hawaii at Manoa

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Areawide CBB Program

- CBB is one of the most devastating pests of coffee worldwide and was recently discovered throughout the Kona coffee growing region in Hawaii and more recently on the island of Oahu
- In response to the invasion and thanks to strong industry support, Hawaii congressional delegation support, and the support of many others, an areawide mitigation and management program for CBB control was established by PBARC in August 2013 with funds received from ARS (\$1M) in collaboration with the University of Hawaii at Manoa under an initial SCA

Area-wide CBB Program: \$1M

- Overall Goal: to help growers deal with the CBB problem in an environmentally sound and economically viable way
- Short term objectives:
 - Optimize the dose and use of commercial *Beauveria*
 - Map the area and extent of CBB infestation
 - Develop prediction models
 - Synchronize coffee blooms for harvest and sanitation
- Long term objectives:
 - Develop new attractants for mass trapping
 - Improve quarantine treatments
 - Analyze the CBB genome to better understand biology

Area-wide CBB Program: \$1M

- In collaboration with UH Manoa:
 - Understand CBB phenology
 - Provide areawide education and extension outreach for mitigation and management of CBB control
 - Develop an economic analysis of CBB effects and determining the value of the mitigation efforts (cost/benefit analysis)

Area-Wide CBB Program: Teamwork

- **USDA/ARS:**
 - PBARC, Hilo; Ithaca, NY; Beltsville, MD
- **UH Manoa:**
 - Hilo, Kona, Oahu
- **HDOA**
- **CBB Task Force**
- **SHAC**
- **Advisors: Coffee Growers**



CBB Area-wide Project, 2014

\$703,358 (\$683,334 to project), amendment no. 1

- Further Original Objectives
- Additional Objectives:
 - The use of more effective *Beauveria* strains
 - Reduce field populations of CBB using
 - Semiochemicals
 - Entomopathogenic nematodes (EPNs)
 - Predators
 - Pruning styles
 - Improved quarantine treatments
 - Implement preventative and/or management measures to additional islands

CBB Area-wide Project

- Background & Update on Budget:
 - 2013: \$1,000,000 (\$949,367 to project) in Sept 2013 under initial SCA; Scientists included 4 from ARS & 5 from CTAHR
 - 2014: \$703,358 (\$683,334 to project) in Sept 2014 under an amendment no.1 to the initial SCA; Scientists added to project included 3 PBARC & 1 CTAHR
 - 2015: \$1,000,000 for CBB Area-wide project (approx. \$700,000 to Hawaii & \$300,000 to Puerto Rico); \$673,000 to project under an amendment no.2 to the initial SCA

PBARC Scientists Involved With CBB Areawide Project

Lisa Keith

Tracie Matsumoto

Nicholas Manoukis

Peter Follett

Roxana Myers

Robert Hollingsworth

Steve Wraight (Ithaca, NY)

Roger Vargas/Marisa Wall

- * PBARC working cooperatively with CTAHR, HDOA and others
- * Participation as key members of the CBB Task Force, SHAC and many farming groups

UH-Manoa CTAHR Scientists, Extension & Economists Involved With CBB Areawide Project

Kelvin Sewake
Andrea Kawabata
Stuart Nakamoto
PingSun Leung
Mark Wright
Russell Messing
Raymond Carruthers
Ken Grace

- * CTAHR working cooperatively with PBARC, HDOA and others
- * Participation as key members of the CBB Task Force, SHAC and many farming groups

CBB Areawide Project

- Current SCA Principal Investigators and their roles:

Dr. Lisa Keith, USDA ARS PBARC

- Coordinated all sub-projects with researchers
- Gathered proposals & wrote overall project proposal for submission to USDA ARS
- Gathered quarterly progress report updates & reported to USDA ARS & Hawaii's congressional delegation as needed
- Communicates & coordinates CBB Areawide project with both USDA ARS & UH-Manoa CTAHR administration
- Communicates with HDOA, CBB Taskforce, SHAC, and other agencies as needed
- Works closely in cooperation with Kelvin Sewake, CTAHR, on all matters of the project

CBB Areawide Project

- Current SCA Principal Investigators and their roles:

Mr. Kelvin Sewake, UH-Manoa, CTAHR

- Responsible for submitting the Federal grant funding approved by ARS into the UH My Grant system under a ARS/CTAHR SCA
- Once agreement is finalized between parties, funding remains in the UH system for expenditures
 - Allocates separate funding to individual CTAHR researchers; Balance of funding for PBARC researchers remain under Kelvin's account & control
- Responsible for all of PBARC's sub-project activities:
 - Hiring & supervising (7 people hired to date)
 - Purchasing materials & supplies via UH-issued pcard
 - Travel arrangements (Dr. Wraight & visiting scientists)

CBB Area-wide Project

- Current SCA Principal Investigators and their roles:

Mr. Kelvin Sewake, UH-Manoa, CTAHR

- Responsible for overall budget including accounting, re-budgeting, re-allocation, expenditures, etc.
- Works closely in cooperation with Dr. Lisa Keith, PBARC on all matters of the project
- Works closely with all 12 sub-project investigators

CBB Area-wide Project

- Current SCA, Extension Specialist:
Dr. Ray Carruthers, UH-Manoa, CTAHR
 - Provides leadership and administrative oversight, CBB areawide HI
 - Responsible for all programs funded under the SCA
 - Assists in preparation and upkeep of reports
 - Serves as supervisor for APT and casual hire
 - Travels to attend industry meetings
- Current SCA PI (2013-2018): *Dr. Lisa Keith, USDA ARS PBARC*
- Round 2 (new SCA PI), The next 5 years:
Dr. Robert Hollingsworth, USDA ARS PBARC

Thank You!

Questions?