

# Hawaii Department of Agriculture

## **Early Detection/Rapid Response**

Case Studies: Coconut Rhinoceros Beetle, Little Fire Ant

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# HDOA Plant Industry Division

## 123 of Early Detection, Rapid Response

- 1 Detecting
- 2 Delimiting
- 3 Deciding (eradication or control)
  
- HDOA responds to multiple pests simultaneously
- Partner with other agencies to attack pest populations where they occur

## Early Detection Pests

- Insects
  - Coconut Rhinoceros Beetle
  - Little Fire Ant
  - Coffee Berry Borer
  - Bagrada Bug
  - Red Palm Weevil
  - Brown Marmorated Stink bug
  - RIFA
  - Etc...
- Noxious weeds
  - Fireweed
  - Fountain grass
  - Russian thistle
  - Long thorn kiawe
- Diseases
  - Banana bunchy top virus
  - Papaya ring spot virus
  - Coffee Rust
  - Banana Moka
  - Sudden oak death
  - Etc...
- Other
  - Frogs
  - Snakes
  - Lizards
  - Invertebrates
- Apiary
  - Africanized Honey bee
  - Varroa Mite
  - Foulbrood disease
  - Tropilaelaps Mite
  - Asian Giant Hornet
  - Bee Viruses
  - Other Bee species

# Coconut Rhinoceros Beetle

- Detection
  - December 23, 2013 first trap detection
  - Early January, 2014 first breeding site discovered
- Rapid Response
  - January 10, 2014 HDOA/USDA unified command established
  - Delimiting surveys begin January and are ongoing
  - Mitigation tools are limited, but are implemented as they are developed
- Resources year 1
  - \$2.8M from USDA farm bill
  - ~\$700K from HDOA
  - ~\$425k from HISC
  - Military allocation ~\$2M

# Coconut Rhinoceros Beetle

- Needs
  - Sustained funding
    - Minimum of \$3,000,000 annually for eradication program
  - Minimum HDOA personnel needs (Oahu): 47 staff
    - 30 field technicians
    - 4 field supervisory technicians
    - 3 data entry technicians
    - 1 GIS technician
    - 1 Entomologist
    - 1 Outreach Specialist
    - 1 canine handler with canines
    - 2 PQ inspectors
    - 3 PQ technicians
    - 1 Incident Commander

# Little Fire Ant

- Detection
  - December 23, 2013 first detection on Hapuu at garden shops on Maui and Oahu
  - December 26, 2013 sixteen retail sites inspected by HDOA; 6 locations LFA positive
- Rapid Response
  - December 27, 2013 HDOA nursery and garden shop treatments begin
  - Mid-January 2014 HDOA incident command established
    - Collaborators: DLNR, HAL, OISC, USFWS, CGAPS, HISC, TNC, UH, MISC
  - April 2014 Waimanalo infestation detected, delimited, and treatments begin
  - June 2014 Mililani community infestations detected, delimited, and treatments begin
- Resources year 1
  - \$400,000 (combined from all agencies)

# Little Fire Ant

- Needs

- Funding

- Minimum of \$1,000,000 annually to detect and control new infestations not on Hawaii
    - Funding to Hawaii Ant Lab for personnel and operational expenses

- Personnel needs Statewide: Present = 6

Additional staff needed:

- 6 field technicians; 2 each Maui, Oahu, Kauai
    - 1 data entry technician
    - 1 outreach specialist
    - 1 certified pesticide applicator

# EDRR needs overall

- Rapid hiring of supplemental staff to quickly respond
- Revolving rapid response fund in HDOA to fund responses
- Sustained funding for invasive species responses
- Build core program to manage responses