

Litte Fire Ant (LFA), *Wasmannia auropunctata*

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Little Fire Ants, *Wasmannia auropunctata*

Biology and Ecology of LFA

- Arboreal - loves shade and moisture
- Also found in lawns and open places if sufficient moisture present
- A “tramp” species, LFA have many queens in each colony, and colonies interconnect to form huge 3-dimensional “supercolonies”
- Extremely efficient at farming scale insects and other Hemiptera



Pests of People

- Painful stings – possible allergic reaction
- Unable to enjoy outdoor activities
- Walking through forest
- Letting children play outside
- Gardening becomes almost impossible



Photo from the Hawaii Ant Lab

Pests of Animals

- Domestic animals frequently stung
- LFA hang around the food bowl and forage around where dogs, etc live
- The result is frequent stings which leads to hair loss and rashes
- Stings on the eyes can cause keratopathy – a clouding of the corneas



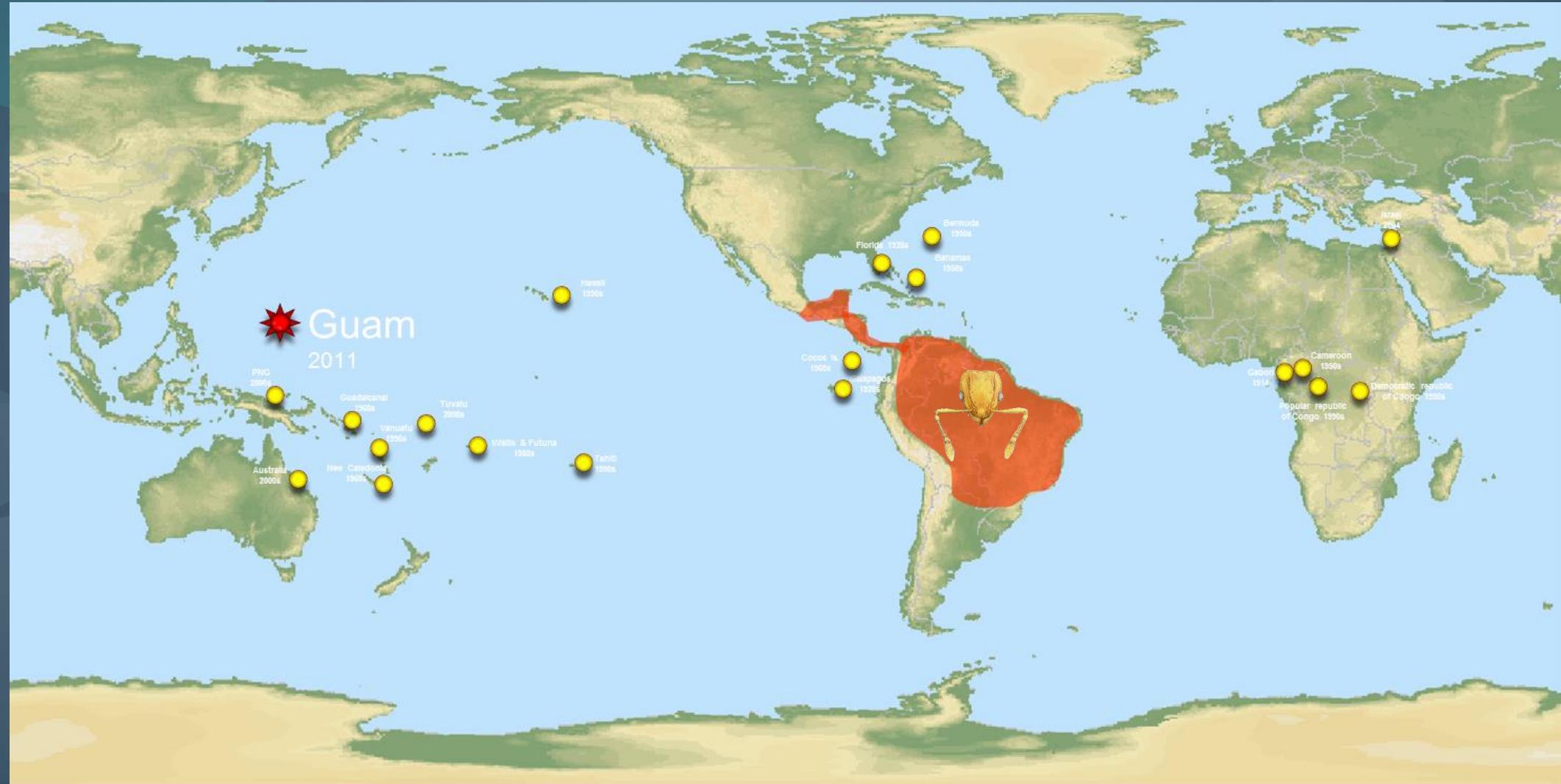
Agricultural Pests

- LFA tend to mealybugs, scales and other insects.
- Protect them from natural enemies
- Move them from leaf to leaf, plant to plant
- This causes stunting of growth, premature fruit excision, fruit spoilage.



Photos from CNAS, UOG & the Hawaii Ant Lab

Origin and Spread of LFA



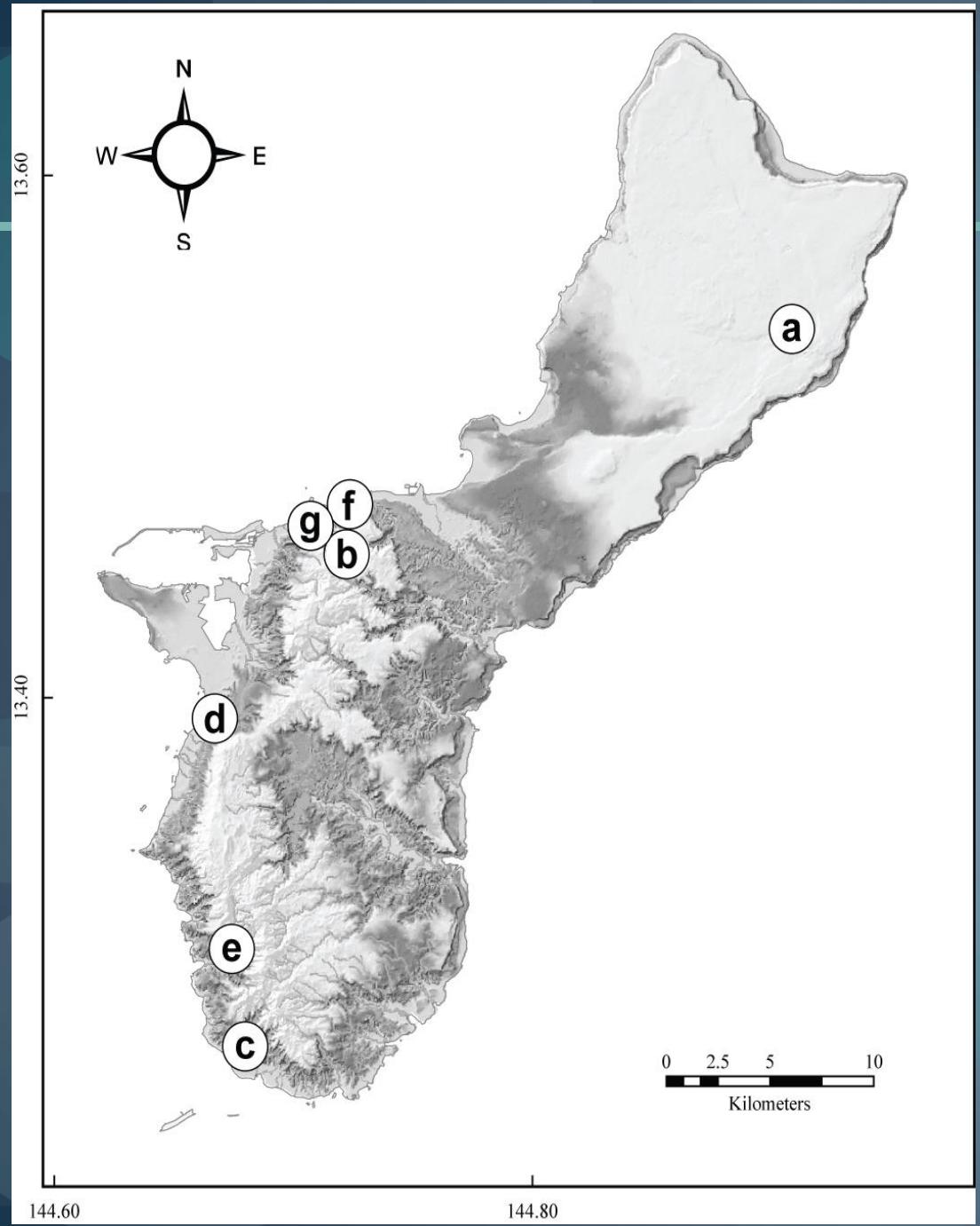
First detection of LFA Infestation



After: R. Miller, Entomology Lab, UOG

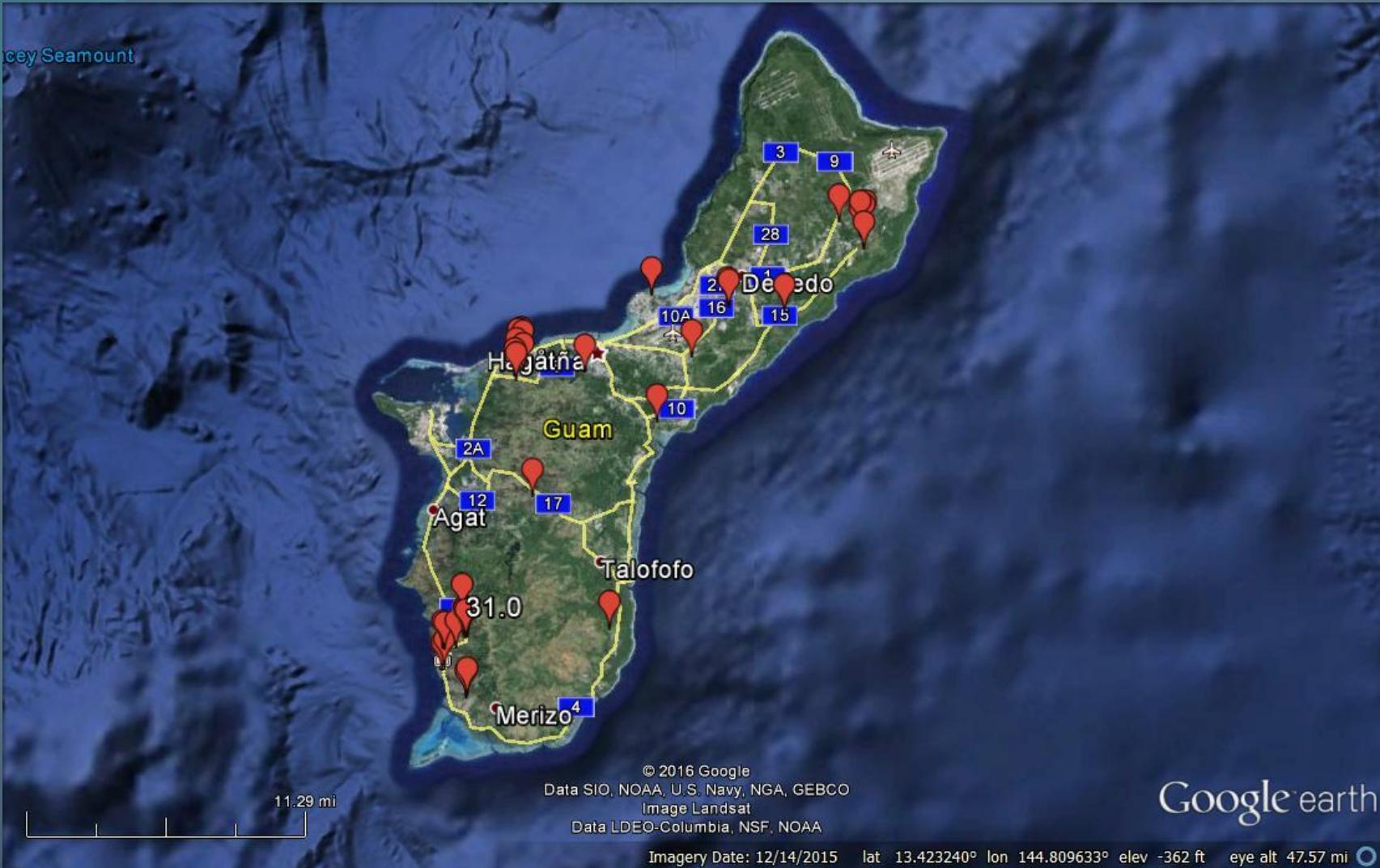
Primo Hardfill Waste Area





After: R. Miller, Entomology Lab, UOG

LFA Distribution in September 2016



After: R. Miller, Entomology Lab, UOG

LFA Eradication/Control

- Adapted Techniques from the Hawaii Ant Lab
- Delimiting Surveys
- Treatment with Tango®
 - [(S)-methoprene]
- Treatment with granular
 - Siesta® (metaflumizone)
- Survey one week after each treatment cycle
- Repeat 8 times every six weeks

Tango®

- (s)-methoprene; rate
 - apprx. 4-8 lbs/acre
- Tango - 5.1%
- Water - 53.8%
- Vegetable oil - 37.4%
- Xanthan gum - 0.7%
- Peanut butter - 3%



Photo by R. Miller, Entomology Lab, UOG

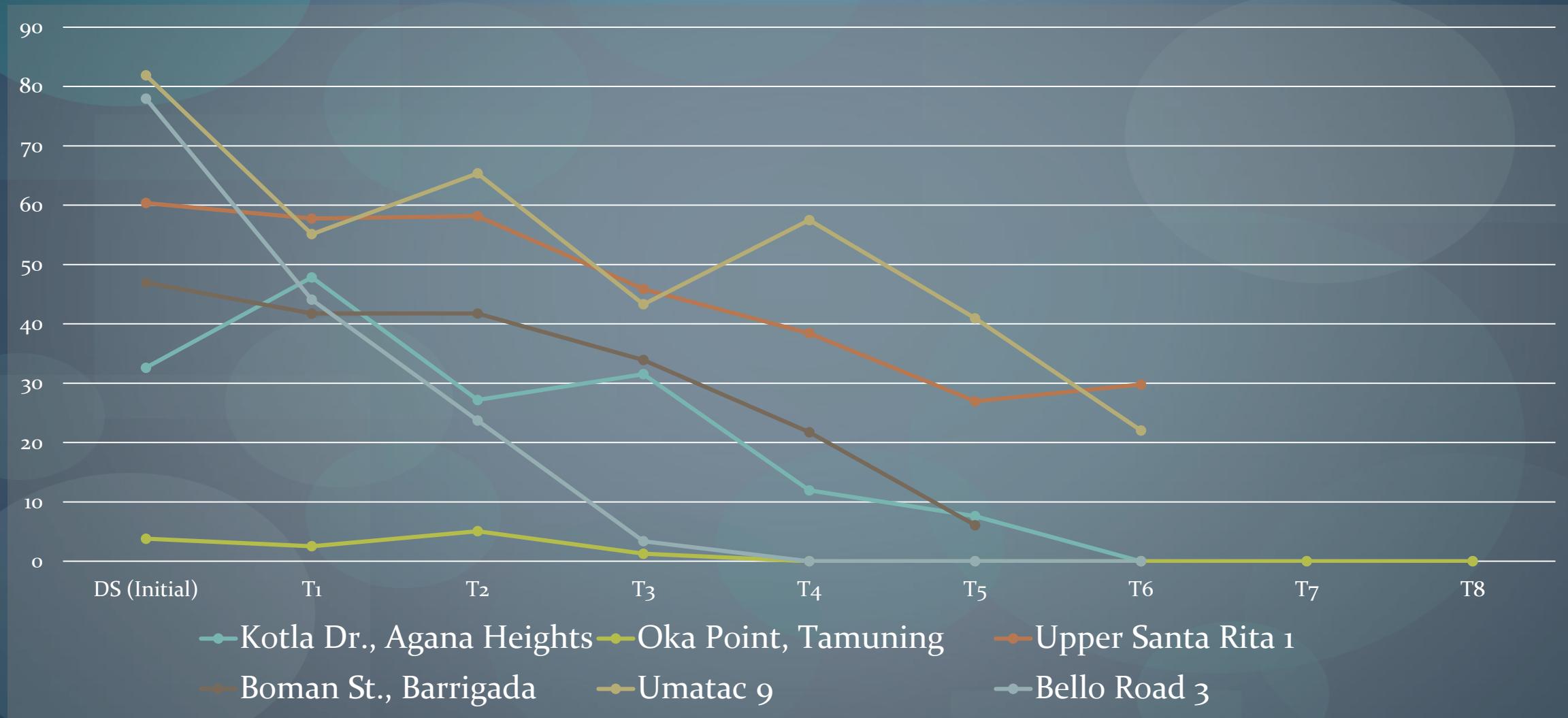
Siesta®

- metaflumizone
(0.063%)
- Water resistant – 4 to 12 hour window
- Apply with fertilizer hand spreader
- 1 – 1.5 lbs/acre



Photo by R. Miller, Entomology Lab, UOG

Percentage of baits infested with LFA during the course of insecticide treatments



LFA Eradication/Control Pilot Study (Division of Aquatics & Wildlife Resources, Guam Dept. of Agriculture)

- National Parks Service
- Heavily infested with LFA
- 8 Treatment cycles every six weeks
- Treatment completed



Google Earth

On-going projects at DAWR

- Effects of Little Fire Ants, *Wasmannia auropunctata* Roger (Hymenoptera: Formicidae), on the Distribution and Population Health of Endangered Tree Snails (Gastropods: Partulidae) on Guam
 - DAWR





Concluding thoughts

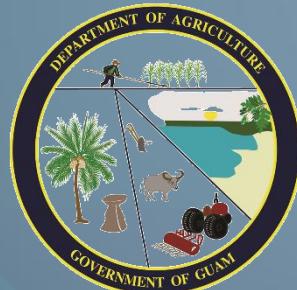
- LFA can be controlled, and eliminated from forest and residential areas
- Terrain limitations; funding limitations
- Re-infestation from LFA-infested areas within 4-8 months
- Need to create outreach activities as they do at the Hawaiian Ant Lab
- Need to protect other Micronesian Islands from Guam LFA;
- Develop mitigation strategies when LFA (or other invasive species) found

Thank you

Dr. Cas Vanderwoude
Pacific Cooperative Studies Unit
University of Hawaii-Hilo



Division of Aquatic &
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Dept. of Agriculture



Jenny Coffman
U.S. National Park Service
War in the Pacific National
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