



## COOPERATIVE EXTENSION

UNIVERSITY OF HAWAII AT MĀNOA  
COLLEGE OF TROPICAL AGRICULTURE  
AND HUMAN RESOURCES

# Melon Fruit Fly Preferred Roosting Host Plants

Rosemary Gutierrez-Coarite, Jensen Uyeda, Joshua Silva, Kylie Tavares

Department of Tropical Plant and Soil Sciences  
University of Hawaii at Manoa

## Background



The melon fruit fly, *Bactrocera cucurbitae* (Coquillett) (Diptera: Tephritidae), is a major pest of cucurbit vegetables and tomatoes (Rabindranath, 1986). Losses from melon fly damage range from 30% to 100% crop loss (Dhillon, et. al., 2005). It is recommended to follow integrated pest management to control melon fly populations such as sanitation, male annihilation cue-lure traps, and protein baits to achieve better control of melon flies (Messing, 1999).



## Objective

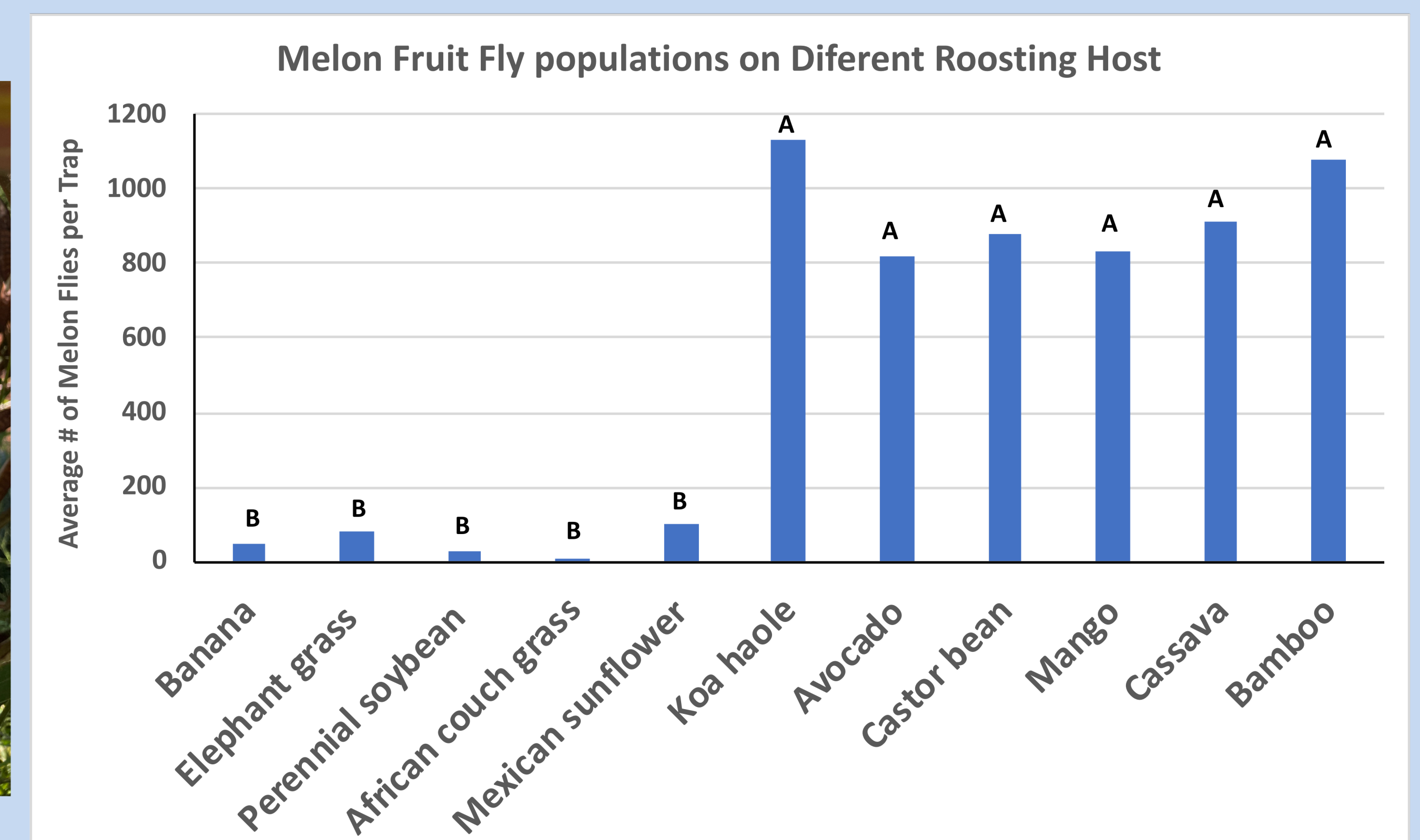
Identify preferred melon fruit fly roosting host plants around zucchini crops.

## Identifying Roosting Hosts

McPhail-type traps (Scentry Biologicals Inc., Billings, MT, USA) baited with torula yeast were used to monitor the abundance of melon flies. One trap per plant species was installed at approximately 300 ft apart. Each trap was loaded with 3 torula yeast bait (Scentry Biologicals Inc., Billings, MT, USA) tablets diluted in 300 ml of water .

## Results

The preferred hosts for roosting areas were castor bean, Koa haole, bamboo, avocado, mango, and cassava with flies captured in a range of 800 to 1150 individuals per week. Blooming plants attracted greater numbers of melon flies, as pollen served as a food source for melon flies. The least preferred roosting hosts were elephant grass, perennial soybean, banana, Mexican sunflower, and African couch grass, with flies captured ranging from 2 to 102 individuals per week



McPhail-type trap



Use 3 tablets of torula yeast lure



Torula yeast lure mixed in  
300 ml of water per trap