



Mosquito Control Talking Points for Beekeepers Meeting 5/14/18

Jessi Howard Kenney, PHD, MPH – Entomologist & General Manager of MCSFL

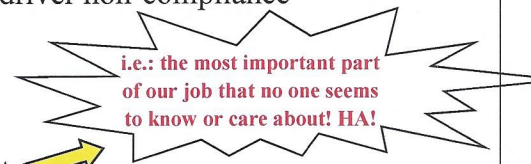


Current Beehive Location and Exclusion Zones Status :

- Current # of bee-related exclusion zones on file - old and most recent list: 128
- However, only 79 as of 4/6/18 from FDACS Bureau of Plant and Apiary Inspection
- Please confirm your hives are on the list. If you know of any beekeepers not present, please have them email jessi@mosquitocs.com to confirm their hives. Technicians will begin confirming hives next week. Those not registered or confirmed will be removed.
- Importance of updating exclusion list...is yearly enough? Better system?
- Map books: updated yearly, how they work, and spray truck driver non-compliance policy

MCS Integrated Pest Management Activities:

1) SURVEILLANCE, TESTING, & INTERPRETATION OF DATA



- 2 full-time day Inspectors: adult landing rates, larval dip counts, rain fall, tides, newly altered ecosystems
- Trap data: 20 New Jersey Traps run three times a week & 12 Gravid traps run once a week throughout year; 20 ovitraps run weekly & 8 CDC traps run monthly during “mosquito season” (March through October)
- All mosquitoes in traps are identified back at our lab and all disease-capable bugs are submitted for arbovirus testing
- Citizen service requests can be submitted by calling Public Works (904) 284-6335; all service requests are responded to within 48 hours of submission, weather permitting
- After taking all this information into consideration by a knowledgeable staff who understand local mosquito ecology and patterns of arbovirus transmission → select appropriate approach

2) THE PREFERRED STRATEGY: LARVAL SOURCE MANAGEMENT

Why? Larvae/pupae in aquatic stage are concentrated & confined = highly susceptible to predation & control efforts

- Control Methods:
 - Water habitat modification & source reduction
 - Chemical application: B.t.i and residual methoprene

Bacillus thuringiensis israelensis is a naturally-occurring soil bacterium. In order to be effective, B.t. i. must be ingested by insects in the immature, feeding stage of development and therefore is ineffective and non-toxic to adult insects.

Methoprene is a juvenile hormone (JH) analog which acts as a growth regulator when used as an insecticide. It can be used around adult bees with minimum injury

3) THE NECESSARY “EVIL”: ADULTICIDE

- Control Methods:
 - Trucks mounted with ULV sprayers run 5-7 nights a week as needed starting usually in March and running through early November . ULV units are calibrated and droplet tested throughout season to ensure accurate output
 - Note: Chemical Rotation & Insecticide Resistance Testing
 - Aerial larvicide and adulticide missions are performed several times a year as justified by surveillance data and service requests

Ways To Protect Your Hives

- Beekeepers: place hives >300 feet from road if possible
- MCS: Conscientious timing of pesticide applications (after sunset, no wind to drift)
Alerts in Garmins to remind driver to turn off spray
 - Formulation, toxicity, and residual effects of chemical
 - Ideally, S, EC, G; low-toxicity; rapidly degradable
 - Focused larviciding and source reduction to need for truck sprays & aerial missions
 - Good communication with beekeepers, increased public education

I encourage and welcome all questions, concerns, and suggestions at any time. Please feel free to call the office at (904) 284-6357 and visit www.southeastmosquitocontrol.com for more information!