Department of Solid Waste Management
Mosquito Control and Habitat Management Division

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Mosquito Control Overview

Miami-Dade Mosquito Control and Habitat Management Division

- Providing mosquito control services since 1935
- Proactive surveillance and monitoring
- Targeted and area-wide treatment activities
- Year-round operations
Mosquito Control: What We Do

- Targeted inspection and larvicide/adulticide application in response to service requests
  - Door-to-door approach
  - Handheld and backpack sprayers
  - Larvicide granules
  - Draining containers with standing water
- Leave-behind information
  - Door hangers
  - Brochures
  - Outreach Activities
Mosquito Control: What We Do

• Truck / Aerial Spraying
  ➢ Used when surveillance data indicates mosquito counts exceed existing standards
  ➢ Used in 2016 for Aedes aegypti mosquito – Zika vector
  ➢ Truck spray schedule online at www.miamidade.gov/mosquito
Mosquitoes & Mosquito-Borne Illnesses

A few species of mosquitoes create sufficient annoyance that require control measures. In addition to their annoyance, mosquitoes can also potentially transmit diseases such as:

- West Nile Virus
- Dengue Fever
- Encephalitis
- Malaria
- Dog heartworm
- Chikungunya
- Yellow Fever
- Zika
All About Mosquitoes

• 48 species in Miami-Dade County
• Three main species that we typically see and are concerned with:

Aedes aegypti (Yellow Fever / Zika Mosquito)

Aedes albopictus (Asian Tiger Mosquito)

Aedes taeniorhynchus (Salt Marsh Mosquito)
Mosquitoes and Construction Sites
Disease-spreading Aedes aegypti mosquitoes can breed in nearly any container that holds water. This can include items around a construction site, such as concrete floors, elevator pits, water-filled jersey barriers, construction dumpsters, five-gallon buckets, 55 gallon drums, empty cans and bottles, old plumbing fixtures, and the like.
Water-filled Construction Barriers

Water-filled construction barriers can breed mosquitoes. Even when empty, rainwater can enter through cracks or an open drain plug.

How to reduce mosquitoes at construction sites:

• Treat them with a commercially available mosquito larvicide that contains Bti (Bacillus thuringiensis israelensis), methoprene (IGR), larviciding oil.
• Consider drilling several holes in the bottom of the barriers so they can drain.
• Fill the barriers with sand instead of water.
Roll-off Containers

Mosquitoes take about one week to go from egg to adult. Roll-off containers must be emptied at least once per week to interrupt the mosquito life cycle, or treat the water with a suitable insecticide to eliminate.
Other Breeding Containers

Five-gallon buckets, old plumbing fixtures, and other small containers

How to keep five-gallon buckets, hard hats, old plumbing fixtures, and other small containers from breeding mosquitoes:

• Turn buckets upside down when not in use; store them where they can’t fill up with rainwater.

• Discard or eliminate broken or damaged hard hats. Otherwise, store hard hats where they can’t be filled with rainwater.

• Remove any unnecessary small containers, and place those you need where they can’t fill up with rainwater.

• Discard or eliminate old bathtubs, sinks, toilets, or other plumbing fixtures. If you need to keep them onsite, cover them or store them where they can’t fill up with rainwater.
Cans, bottles and other food and beverage containers

• Provide workers with a container or bag for proper disposal of cans, bottles and food or beverage containers when they’re done.

• Mosquitoes can lay eggs in an item as small as a bottle cap from a water or soda bottle.
Protect workers from mosquito bites

Make sure workers wear long sleeves, long pants and socks, and put on mosquito repellent.
Code Enforcement

- Chapter 26A-2.1 of the Code of Miami-Dade County.
  - Prohibition of nuisance. “It shall be a violation of this section for any person to allow the existence of, create, keep, or maintain an artificially induced mosquito breeding area”. (Five mosquitoes in the larval stage)
  - Violators are allowed five (5) days for correction without penalty. (These are reduced to two (2) days under a medical alert or state of health emergency).
  - A $200 per day citation is issued on the 6th day if violation is not corrected.
  - After the 5th day, the division takes corrective action to abate the violation.
  - The property owner is responsible for all costs involved in the abatement and enforcement process.
  - A lien may be filed if the owner fails to pay for costs.
Closing

• Going Forward
  ➢ Dedicated Mosquito Control public information staff, additional support staff and inspectors
  ➢ Dedicated social media accounts @305mosquito
  ➢ New technologies to keep stakeholders informed utilizing GIS and mobile inspection reporting
  ➢ Enhanced “off-season” education and outreach
  ➢ Continual “Drain and Cover” & “Fight the Bite” promotional efforts
Thank You

Questions?