



#### Seminole County Mosquito Control Program

# **Mosquito Control 101**

Address: 200 West County Home Road, Sanford, FL 32773

Phone: 407-665-5542

Fax: 407-665-5600

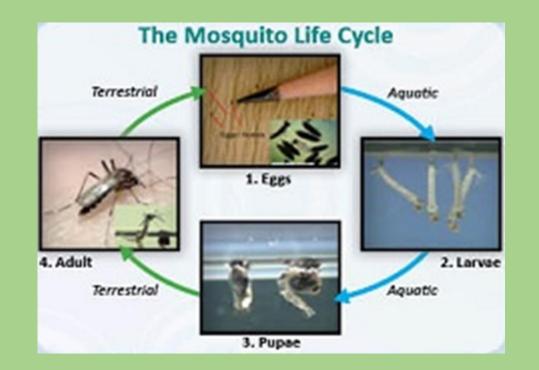
Email: mosquito@seminolecountyfl.gov





#### What We Do

Protect the health and well-being of citizens through the prevention and control of mosquitoes and mosquito-borne diseases.



Control mosquito populations to a tolerable level in the safest manner by using a variety of methods to minimize potential effects on people, wildlife, and the environment.

# Semicole Courty Integrated Pest Management (IPM)

- Manage mosquito populations by means of integrated programs designed to have minimal adverse effects on people, wildlife, and the environment
- Basic Principles:
  - Source reduction
  - Larviciding
  - Surveillance
  - Targeted adulticiding (fogging)
  - Public education







#### **Source Reduction**

- Remove or eliminate sources that are breeding mosquitoes or have the potential to breed mosquitoes
  - Drain Water
    - Community-wide surveys
    - Conduct door-to-door inspections
  - Tire Removal
    - Tire Amnesty Days
  - Green Pools









# Larval Mosquito Control (Larviciding)

- Conducted year round to control immature mosquitoes (larvae) as part of the IPM approach
  - Efficient and cost effective control measure for mosquitoes because mosquito larvae are in concentrated areas where treatment can be focused
  - "Greener" products used: SCMC uses bacteria (Bti), growth inhibitors (Methoprene), and surface film oils (COCOBEAR™) larvicides in its program





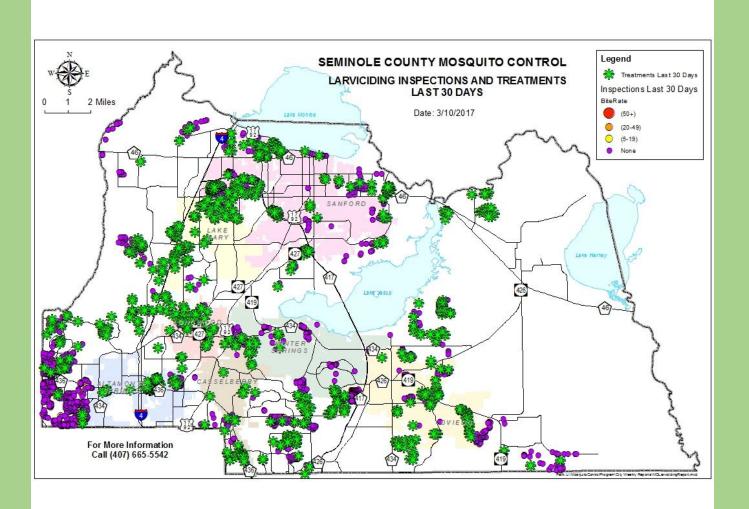






## Larviciding Activity

- Larviciding is primary activity
- Map of larviciding activity in last 30 days (updated weekly on our website)

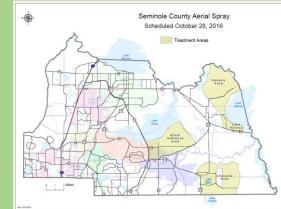




# Adult Mosquito Control (Adulticiding)

- Hand portable foggers
- Ultra Low Volume (ULV), aerosol sprayer, also known as fogging
  - Ground fogging with truck mounted units
  - Applied late evenings/mornings to avoid people, animals, bees, and butterflies
- ULV treatments can also be conducted by air using a low flying airplane (Last done 2017, 2016, 2011, and 2009 in Seminole County)





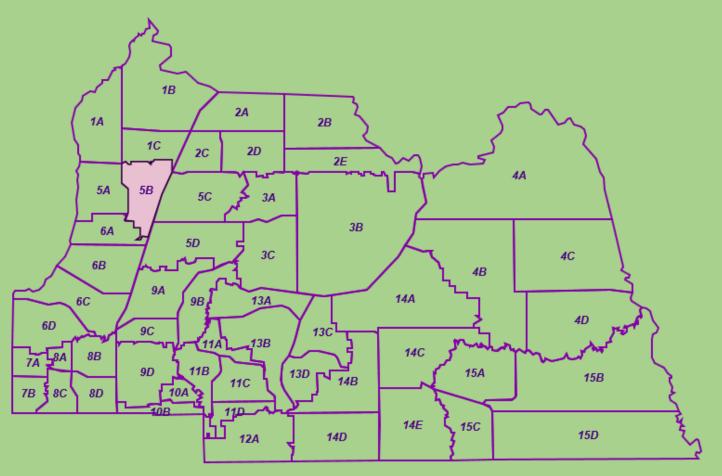




## **Ground Fogging Activity**

#### **Ground Fogging is last resort!**

- Map on website shows streets and surrounding areas that will be treated by ULV spray trucks, weather permitting.
- Scheduled Spray Zones are highlighted. Click on a highlighted zone to find more information.

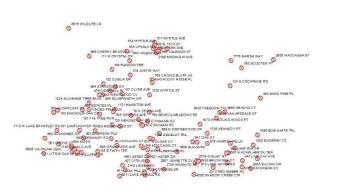




## Reverse 911 and/or a No Spray Request

#### Spray Notification (Reverse 911)

- Call or email the request to Seminole County Mosquito Control office and include your name, address, and at least 1 phone number that you wish to receive automated notification of fogging in your zone
- Fogging missions are laid out by fog zone but we do not necessarily fog the entire zone
- It is possible to receive notification even though your street isn't part of the fogging mission
- Notifications go out for fogging within the next 48 hours (not time or street specific)
- Fogging is conducted, weather permitting



Email: <u>mosquito@seminolecountyfl.gov</u> Phone: 407-665-5542

#### To Make a No Spray Request

- Call or email the request to Seminole County Mosquito Control office and include your name and No Spray address
- Keep in mind, it is a request
- Fogger is turned off as truck passes the 'No Spray' address <u>UNLESS we are</u> <u>fogging for disease response</u>
- If you are a beekeeper, please register on the Florida Department of Agriculture & Consumer Services website at:

https://www.freshfromflorida.com



#### Reverse 911 and/or a No Spray Requests

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#### **Aerial Spray Activity:**

- In the event of aerial spray- all beekeepers registered with us or listed in the FDACS registry will receive a personal phone call/message to notify of event
- Very important to keep your contact information with us current
- Additional notifications are conducted through social media outlets, media sources, and R911 system within the targeted area
- Aerial services are conducted to reduce/eliminate the threat of mosquitoborne diseases or response to human disease



#### **Mosquito Service Request**

- We rely on service requests from residents to assist where to focus our efforts
  - Call, email, or submit requests online
- Once we receive a service request, we send out a trained technician to inspect and treat as necessary
  - You may also receive a call requesting more information
- Requests can be anonymous!
- Call: 407-665-5542
- Email: mosquito@seminolecountyfl.gov





#### **Mosquito Surveillance**

- BG Sentinel Trap (adult mosquito collections)
- CDC light trap with CO2 (adult mosquito collections)
- Ovitraps (mosquito egg collections)
- Sentinel Chickens
- All traps are marked with the SCMC address and phone number. Not bombs!









#### Mosquito Surveillance Sentinel Chicken Program

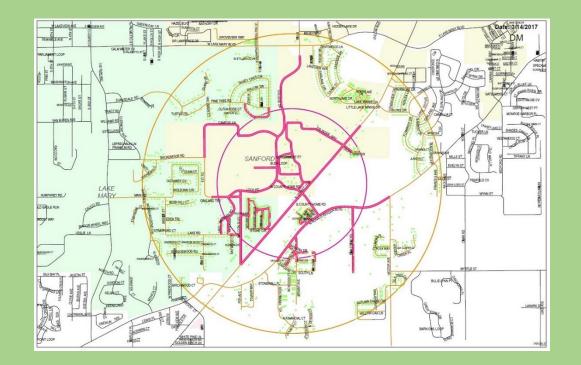
- Chicken flocks placed throughout Seminole County
- Weekly blood samples are collected and sent to the State lab
- A positive chicken is proof of current, local transmission





#### **Public Health**

Provide a countywide, consolidated means for preventing the transmission of Zika, Dengue, Chikungunya, West Nile Virus, Encephalitis and other mosquito borne diseases.





#### **Public Education**

Outreach programs to educate the public regarding mosquito control and what the public can do to protect themselves around their property to help eliminate mosquitoes.

- Social Media
- Facebook
- Website
- Digital boards
- Outreach Events







- Billboards
- Parks/Library/County Buildings
- Community Events/Meetings
- School Presentations



www.SeminoleCountyFL.gov/Mosquito





#### **Educational Campaign**

- Message:
- 4 Ds of prevention:
  - 1. Drain all standing water around your house weekly
  - 2. <u>D</u>usk & Dawn are when mosquitoes are most active, so limit outdoor activities at those times
  - 3. <u>D</u>EET is an effective ingredient in insect repellants—follow label instructions carefully
  - 4. <u>Dress in long sleeves and pants during dawn and dusk or in areas where there is a lot of mosquito activity</u>









#### **Mosquito Control and Beekeepers**

- Seminole County Mosquito Control has a great relationship with our local beekeepers
- Communication through Seminole County Beekeepers Association
- Don't forget to register your hives with FDACS
- Truck fogging is conducted in either late evening and/or early morning hours to avoid people, animals, bees, and butterflies
- ULV treatments by low flying airplane are very rare (Last done 2016, 2011, and 2009 in Seminole County).





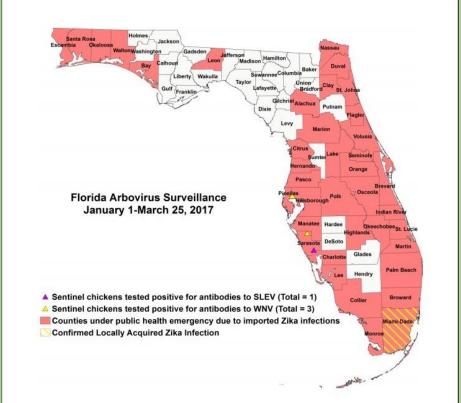
#### Bats and Mosquito Control

- Bats can eat up to 1,000 mosquitoes an hour (if mosquitoes are the only insect available!). Studies have found that mosquitoes make up less than 1 percent of bat diets. Moths and beetles are much more juicy.
- Bats alone will not kill enough mosquitoes to solve the problem.
- Bats are not the answer to prevent Zika.
  - Bat Conservation International article on 'The best way to prevent Zika in your backyard'
  - Aedes aegypti mosquitoes that can transmit disease are active during the day, not at night when bats are hunting
- You can build a bat house but you can't make bats live in it



#### Florida Arbovirus Report

- Arbovirus report is updated weekly by the Department of Health
- County by county totals for all of Florida
- Includes arboviral activity for human cases, sentinel chickens, veterinary cases, mosquito pool reports, dead bird counts by FWC, and maps
- <u>Click Here for current FL Arbovirus</u> <u>Surveillance Report</u> (link to report can also be found on our website)



2017 Arbovirus Activity by County		
County	Arbovirus Activity	
Broward	2016 ZIKV: 5 humans (July, August, September, October)	
Duval	2016 ZIKV: 1 human (acquired in Miami-Dade, September)	
Hillsborough	WNV: 1 sentinel (1/24)	
Miami-Dade	2016 ZIKV: 269 humans (July, August, September, October, November, December 2016); 8 mosquito pools (8/22, 8/23, 9/4, 9/9, 9/20, 9/23, 10/5) 2017 ZIKV: 2 humans (January, February-both asymptomatic)	
Palm Beach	2016 ZIKV: 8 humans (July, August, September, October)	
Pinellas	2016 ZIKV: 1 human (August)	
Sarasota	WNV: 2 sentinels (1/23) SLEV: 1 sentinel (1/20)	

## Travel Related Zika Cases in 2016

- 101 serviced County wide
- 27 Zika confirmed County wide
- 4 Dengue confirmed
- I Chikungunya confirmed

#### Travel Related Zika Cases in 2017

- 21 serviced County wide
- 6 Zika confirmed
- 1 Malaria confirmed



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