



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.



- 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 our primary activity because it kills more mosquitoes than fogging spray and for a longer period of time
- Map of larviciding activity in last 30 days (updated daily 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 OCT 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:

https://www.seminolecountyfl.gov/depart ments-services/public-works/watershedmanagement/mosquito-controlprogram/mosquito-servicemap.stml or

www.seminolecountyfl.gov/mosquito and click on 'Service Map and History' link.





Reverse 911 – Spray Notifications

Reverse 911 / Spray Notifications

- Call or email the request to Seminole County Mosquito Control office and include your name, address, and at least 1 phone number and/or email address 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 may only be several streets within a fog zone
- It is possible to receive notification even though your street isn't part of the fogging mission
- Automated notifications go out for fogging within the next 24-48 hours (not time or street specific)
- Fogging is conducted, weather permitting

- If you are a beekeeper, please register on the Florida
 Department of Agriculture & Consumer Services website at:
 <u>https://www.fdacs.gov/Agriculture-Industry/Bees-</u>
 <u>Apiary/Beekeeper-Registration</u> in addition to notifying us
- In the event of an aerial spray- all beekeepers registered with us or listed in the FDACS registry will receive a personal phone call/message to notify of event
- Please do not hesitate to call us at 407-665-5542 or email us at <u>mosquito@seminolecountyfl.gov</u> if you have any questions about fogging in your area



Reverse 911 - Aerial Notification



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 (last aerial spray by plane in Seminole County was in 2017)
- Aerial services are conducted to reduce/eliminate the threat of mosquito-borne diseases or in 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 Malaria, 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 semicole





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>DEET is an effective ingredient in insect repellants—follow label instructions carefully</u>
 - 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: https://www.fdacs.gov/Agriculture-Industry/Bees-Apiary/Beekeeper-Registration
- 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 2017, 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 preferred.
- Bats alone will not kill enough mosquitoes to solve the problem.
- Bats are not the answer to prevent Mosquito-Borne Diseases
 - 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>



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)



Arbovirus Activity



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