



Prevention and control of arboviral diseases is accomplished most effectively through a comprehensive, integrated mosquito management program using sound Integrated Pest Management (IPM) principles. When the Seminole County Mosquito Control Program receives notification from the Seminole County branch of the Florida Department of Health (CDH) regarding a suspected arbovirus case (such as Dengue, Malaria, Chikungunya, Zika, West Nile, Eastern Equine Encephalitis, Highlands J, and St. Louis Encephalitis), the Seminole County Mosquito Control Program will provide the appropriate level of response listed below in accordance with provisions of Chapter 388, Florida Statutes:

Response Level 1: No significant mosquito or disease activity:

- Review and maintain basic surveillance activities as appropriate for season
- Review and update response plans
- Review and update community outreach and public education programs as necessary
- Perform surveillance and avian data analysis reviewing locations and trends
- Maintain source reduction projects
- Conduct insecticide resistance management in target vector populations

Response Level 2: Biting adult mosquitoes (vector species) active and epizootic activity expected based on onset of transmission in prior years or limited or sporadic epizootic activity detected in sentinel flocks:

Response as above plus:

- Communication with respective agency listed in Standard Operating Procedure
- Conduct standard IPM activities to reduce vector mosquito abundance
- Direct sporadic adult mosquito control to areas at risk
- Conduct enhanced surveillance

Response Level 3: Sustained transmission activity in sentinel flocks or suspect/confirmed human cases reported:

Response as above plus:

- Increase in targeted surveillance activities
- Intensify and expand adult mosquito control, including repetitive treatments in risk area/cases
- Provide public information focused on personal protection and source reduction (CDH)

Response Level 4: Human cases acquired locally:

Response as above plus:

- Increase public alerts specific to the current situation (CDH)
- Emphasize urgency of personal protection, including use of repellents, through community leaders and media
- Increase surveillance activities
- Increase adult mosquito control and include, but not limit to, individual parcel barrier treatments
- Advise CDH of justification for elevated disease-prevention efforts i.e. cancelling outdoor activities, closing campgrounds, etc.
- Request State and Federal support for mosquito control operations as needed

Response Level 5: Outbreak in progress - Conditions favor continued transmission to humans or multiple confirmed human cases:

Response as above plus:

- Intensify and expand aggressive adult mosquito control, including nightly treatments in risk area
- Coordination of response efforts between participating agencies such as Counties, Cities, CDH, FDACS, and FDOH

Standard Operating Procedure (SOP)



- Approximate one mile radius surrounding the street of resident is determined and a map is created for the team. Pesticide use, surveillance, and field logistics is discussed with Mosquito Control Program Director.
 - Field Supervisor assigns Mosquito Control Technicians to one-half mile radius for intensive door-to-door inspections, treatment with larvicides for breeding sites, source reduction (which involves the emptying of any containers and other items holding water), and disbursement of Mosquito Control flyer/door hangers (English and Spanish versions are both available).
 - Field Supervisor directs Mosquito Control Technician II on implementing ground surveillance including collection of mosquito trap data within one-half mile radius. Historical surveillance data and work orders are evaluated within one mile radius.
 - Field Supervisor determines fogging zone and creates fogging map for adulticide spray missions within one-half mile radius, highlighting all streets to be included, weather permitting, for up to 2 weeks including weekends and holidays. Adulticide missions are unable to be conducted in weather conditions such as winds over 10mph, rain, fog, or climate that is 50 degrees or less. Mosquito Control Technician II sends out Reverse 911 notification to all residents registered within the fogging zone. This notification includes the 'Do Not Spray' residents who will be fogged because the mission is disease related.
 - Random address (for HIPPA) is entered into Mosquito Control's asset management system by Mosquito Control Program Coordinator with the information provided by the CDH such as if suspected case is thought to be IMPORTED or LOCALLY acquired. If IMPORTED, the country where resident traveled, date for onset of symptoms, date of travel, etc. are noted.
- Mosquito Control Program Director coordinates with CDH, or other State Agencies depending on response level, on field operations and discusses potential events or establishments that may be affected (outdoor events, schools, etc.). DOH contacts schools within radius if applicable. If patient has been outdoors during infection period, Mosquito Control Program will treat areas visited by the patient (i.e. Malaria case where patient played soccer at several parks). This level of information is only obtained through patient interview process conducted by CDH and relayed to Mosquito Control Program.
- Mosquito Control Program Director coordinates with CDH and County Office of Emergency Management. If suspect case falls within city limits, the city's Mosquito Technical Committee member would be contacted (list of city technical members is below and available on our website). Email is also distributed to county Public Works Director and Watershed Management Division Manager.

Altamonte Springs – Andy Capuano	Oviedo – Chris Wenner
Casselberry – Steve Spencer	Sanford – Bobby Washington
Lake Mary – Dave Dovan	Winter Springs – Len Hartman
Longwood – Warren Wahl	
- Mosquito Control personnel meets daily with Field Supervisor for discussion of field observations and mosquito trap data. Field Supervisor relays findings/information to Mosquito Control Program Director for sharing with Watershed Management Division Manager and Public Works Director and involved agencies depending on response level.
- CDH calls Mosquito Control Program once they have either confirmed or ruled out the disease (this can take several weeks).
- Mosquito Disease spreadsheet is updated by Mosquito Control Program Coordinator. Disease activity is separated by year/disease for both human cases and sentinel chicken locations. Spreadsheet (MC DISEASES.xlsx) is kept at U:\MosquitoControlProgram\MC Diseases. Disease totals are checked against the FL Arbovirus Surveillance Report released weekly by the Department of Health for accuracy (link available on our website).
- Mosquito Control Program Director discusses field operations related to cases with other Mosquito Control Programs and with the Mosquito Control Technical Committee at next meeting.