

Official Session Title:

# “Lessons Learned from Advancements in Mosquito Control Operations”



**I have to talk for 30 minutes so I feel its only fair to warn you what I'll be sharing with you so you can make an educated decision about whether you want to stay or make a discreet exit right now...so here you go:**



# **OPERATIONS!**

- 1. Brief overview of our MCS East Coast Programs**
- 2. Most recent experiences and responses to storm related events**
- 3. Most recent incidents and responses to WNV events**
- 4. Most recent incidents and responses to EEE events**
- 5. Public relations with local citizens and the media**

# **We ONLY run IPM programs**

**I don't need to educate this room about what that means but...**

**WHERE, WHEN, WHAT, AND WHY we take certain actions and/or apply chemical requires consideration of all the following:**

- Field Inspection and surveillance**
- Larviciding**
  - boots on the ground (hand and pump applications)**
  - aerial granular applications**
- Adulticiding**
  - ground spray trucks**
  - aerial naled applications**
- Local service requests and feedback**
- Respecting Exclusion Zones (pollinators, organic gardens, chemically sensitive citizens, etc.)**

## **OUR MISSIONS**

**PROTECTING PUBLIC HEALTH**

**PROTECTING OUR STAFF**

**ENVIRONMENTAL STEWARDSHIP**

**PROMOTING PROACTIVE AND POSITIVE BEHAVIOR FROM CITIZENS AND PUBLIC HEALTH OFFICIALS**

# 1. Overview of MCS East Coast

Here and here currently



Glynn County, GA

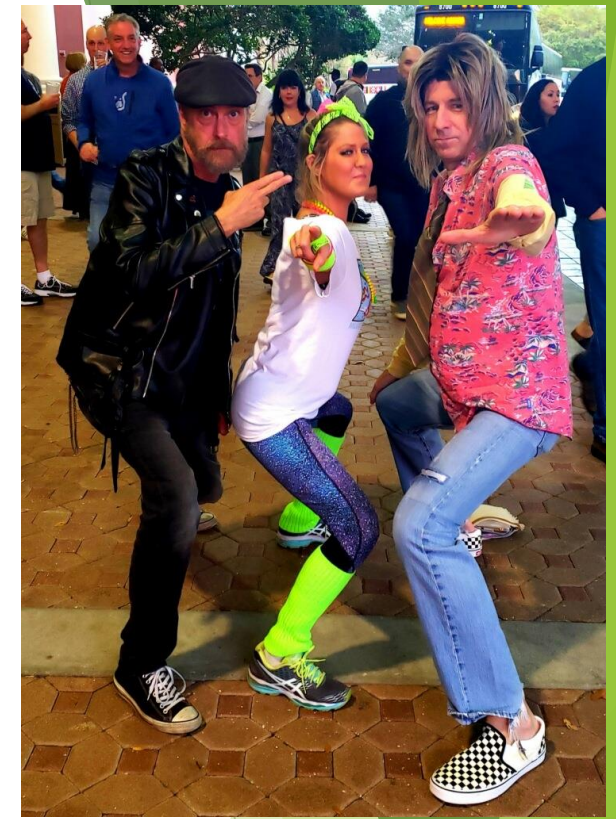


Clay County, FL



This is me

MOSQUITO, I DONT KNOW WHERE YOU  
ARE  
BUT I WILL FIND YOU, AND I WILL KILL  
YOU



Ok this is **\*actually\*** me



**Jessi Howard Kenney - PhD, MPH**

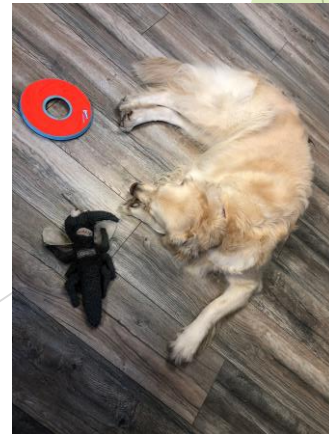


**East Coast Regional Manager  
Mosquito Control Services**





More importantly.....My team = people who do the real work!





# First Line of Defense:

## Surveillance & larviciding

- breeding habitat maintenance and remediation
- proactive juvenile abatement and residual treatment

## Dip Inspections



## Minnow Placement



## Roadside ditches



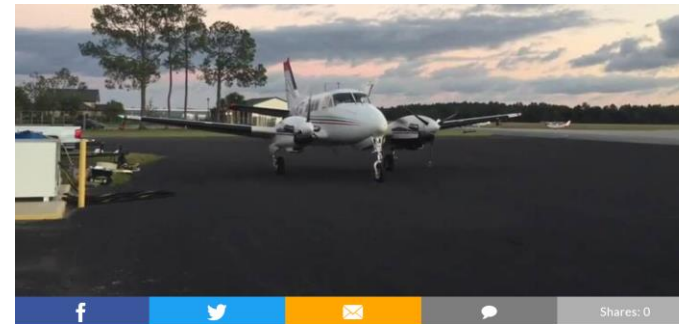
## Woodland areas



## Tire Treatment



## Aerial Applications



BRUNSWICK, Ga. - Glynn County [Mosquito Control](#) Services plan aerial spraying Tuesday evening of South Brunswick, Arco/Selden park area, Blythe Island, Hampton Point, Jekyll Island and the uninhabited areas of Andrews Island.

A twin-engine King Air aircraft with red and blue stripes will be spraying between 8:30 and 10:30 p.m.

Should weather prevent the spraying, it will be rescheduled during the same time period one day after the weather breaks.

Call the Mosquito Control Office at 912-217-6300 with any questions about the spraying.

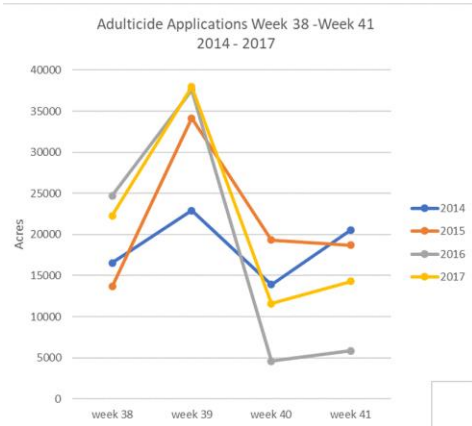


# Post Hurricane Responses

## Adult Mosquito Control

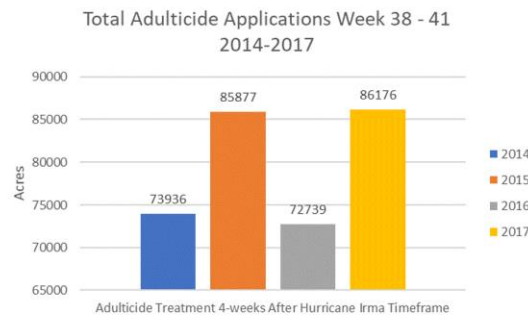
By reducing the numbers of mosquitoes, the odds of being bitten diminish. More importantly, when disease is present, the chances for transmission can be lowered. Since mosquito activity peaks at both dawn and dusk, fogging at one of these times allows for the best chance of impacting mosquitoes while decreasing the chances for an exposure in people. Using trap surveillance, weather conditions (wind, rain, temperature, and tides), and service requests from citizens for guidance, adulticide applications are directed by scientifically-justified, conscientious decision-making on a daily basis. **Running four trucks a night for 10 consecutive nights, 26,232.03 acres have been treated with adulticide in Brantley County by MCS.**

### Adulticide Applications Weeks 38-41



Based on the previous three years during this four-week period, the adulticide treatment average was 77,517 acres. After Hurricane Irma, the adulticide acreage was 86,176 acres.

**8,659 acres (10%) above average**



## Current State, Considerations, and Recommended Action

As indicated in the graph, we have seen a 79.5% decrease in the number of mosquitoes in CDC Traps and an almost 95% decrease in Gravid Trap counts over the last 13 days. Inspectors have reported a decrease in daytime landing rates at trap sites and no service requests have been reported (to MCS's knowledge) within the last week. This surveillance data reflects not only the effectiveness of our larvicide and adulticide applications, but also the changing weather conditions. Brantley County has experienced no significant rainfall since November 7, 2016. Additionally, nightly low temperatures have consistently dropped from 47 degrees when we began our program, to 32 degrees as of last night. Adult mosquitoes generally are not active below 50 degrees, larvae and pupae in breeding sites will die off or enter a state of dormancy, and the next generation of eggs will not hatch until temperatures warm back up and rainfall increases. It is in our professional opinion that no further larval or adult mosquito control efforts are necessary at this time. We will continue to monitor temperature and rainfall trends to determine if and when resuming surveillance and control measures are necessary in Brantley County.





# West Nile Virus Incidents and Response

- ▶ 8 positive pools in Glynn County from July through November of 2018



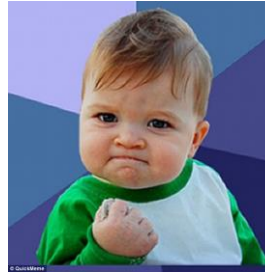
- ▶ 11 positive pools in Glynn County from July through September of 2019



- ▶ 2 positive pools in Clay County from July through August of 2018



- ▶ No positive pools for Clay County in 2019! Hooray!!



## Response Protocol:

- Communicate with County Officials and Public Information Officer
- Deploy field inspectors for increased habitat breeding inspections
- Place door hangers to alert public
- Three nights of adulticide truck spraying
- Follow up surveillance to insure applications were effective



# **Eastern Equine Encephalitis 2019**

## **No reported EEE events in Glynn County in 2019**

### **CLAY COUNTY, FL**

- **October 7<sup>th</sup> 2019 the Department of Health informed MCS Clay County Mosquito Control of a horse EEE case in the Keystone Heights area**
- **On October 8<sup>th</sup> 2019 MCS Clay County Mosquito Control responded by:**
  - **Elevated larviciding in the known breeding area**
  - **Provided educational material to local residents**
  - **Deployed surveillance traps**
  - **Increased adulticide night trucks**
  - **Follow up surveillance traps to confirm treatment was effective**



# Public Education

- Local community events
- Schools
- Discuss breeding habitat identification and elimination
- Discuss using insect repellent
- Inform about how to contact Mosquito Control

Clay County Agricultural  
Emerging Leaders Academy

Middleburg High School Career  
and Technical Education Center

Coast Fest, Glynn County GA



Elementary Schools, Glynn GA

