



FLORIDA KEYS

MOSQUITO CONTROL DISTRICT

Board of Commissioners

Phil Goodman, Chairman
Jill Cranney-Gage, Vice Chairman
Brandon Pinder, Secretary/Treasurer
Thomas McDonald
Stanley Zuba

Executive Director
Andrea Leal

18 Aquamarine Drive
Key West, FL 33040

Telephone: (305) 292-7190
FAX: (305) 292-7199

www.keysmosquito.org

August 20, 2018

To Mayor Cates and the Key West City Commission:

Re: Florida Keys Mosquito Control District Use of Naled

The Florida Keys Mosquito Control District has used Dibrom, active ingredient naled, for treatment of adult mosquitoes in the Florida Keys for many years. The product Dibrom is regulated by the Environmental Protection Agency (EPA) and is approved for mosquito control use. According to the EPA, naled is the most widely-used pesticide in the United States for aerial mosquito control. In recent years, naled has been applied by aerial spraying to about 16 million acres per year within the mainland United States as part of routine mosquito control. Naled has been used in highly populated major metropolitan areas as well as agricultural and more rural areas. It is an extremely important tool for our District.

Why is naled so important? This is a very easy and yet complicated answer...resistance. We have found that our local domestic mosquito, *Aedes aegypti* is becoming resistant to other insecticides. *Aedes aegypti*, which you all have heard a lot about since 2009, was responsible for our local dengue cases, as well as the hundreds of Zika cases in Miami. Naled is one of the few insecticides that still works on our local *Aedes aegypti* population.

Our responses at the District vary depending upon the mosquito which we are targeting. For example, salt marsh mosquito response in the Upper Keys and *Aedes aegypti* mosquito response in Key West are very different. All of our actions are based upon real-time mosquito numbers, either seen in the field or collected in traps. The District does not plan missions on a schedule. We plan missions to be the most effective possible. When planning aerial naled missions, we know approximately mid-day the day before a mission needs to occur. If we were to wait additional days, it allows the mosquito population to continue to increase and/or spread and it gives additional time for these large numbers of mosquitoes to bite the human population. This exposure to mosquitoes is what we are ultimately trying to protect our people from. It is extremely important that our District treats these adult mosquitoes in as timely a manner as possible.

All of our aerial adulticide missions occur between sunrise and two hours after sunrise. The reason for this depends upon the mosquito we are treating. This timeframe is selected for salt marsh mosquitoes because there are safety concerns with night vision in the Florida Keys at the altitude at which we fly (100-150ft). This time after sunrise is ideal for *Aedes aegypti* mosquitoes, again, the main reason we conduct aerial adulticides missions in Key West. For naled to be effective, it must come into contact with the mosquito. If the mosquitoes are not out, there will be no effect on the population. *Aedes aegypti* are most active following sunrise and prior to sunset.

We do our best at the District to notify the public of all of our aerial adulticide missions. All missions are posted to our social media accounts, we do press releases, and have an email and call notification system. We continue to expand upon this as we are currently in the process of creating an app for public notifications of missions.

The bottom line is that naled is a very important aspect of our control program. It is an EPA-approved product that is applied regularly over populated areas. Unfortunately, we cannot change the timing of our applications due to the activity of the mosquitoes we are targeting. And we will continue to work on our public notifications to make sure that any and all are aware of our activities.

Respectfully,

Andrea L. Leal
Executive Director