GM Mosquito Release Planned Next Week

Additional control measures to combat \textit{Aedes aegypti} mosquitoes, which transmit Zika, dengue, chikungunya and yellow fever, are set to begin in West Bay next week.

Operational roll-out of a technique involving genetically modified \textit{Aedes aegypti} mosquitoes will come a week after the first confirmed cases of Zika in the Cayman Islands.

The Mosquito Research and Control Unit (MRCU), in collaboration with biotechnology company Oxitec, is releasing the mosquitoes as a preventative measure to control the mosquito responsible for the transmission of Zika and other viruses.

The technique uses genetically engineered, non-biting sterile males to mate with local female \textit{Aedes aegypti} mosquitoes, which then have offspring that die before reaching adulthood.

Operations are scheduled to begin on Thursday, 14 July or soon after that, depending on the weather and other environmental conditions.

The treatment area in West Bay comprises 300 acres between Watercourse Road, Powell Smith Lane, Rev. Blackman Road and Hell Road. In the region of 100 to 200 pots, each containing approximately a thousand male mosquitoes, will be released three times a week.

“With our first confirmed cases of Zika, which were both imported, it is more important than ever that we get this additional control in place to help prevent any local transmission of mosquito-borne viruses,” said MRCU Director, Dr. Bill Petrie. “We cannot stop mosquito-borne viruses from reaching our shores, but this technique will allow us to reduce the population of \textit{Aedes aegypti} to help effectively prevent transmission.”
Earlier this year, the World Health Organization (WHO) recommended pilot deployment of the Oxitec technique, under operational conditions, to respond to the Zika crisis, declared in February to be an international public health emergency.

Zika can cause the birth defect microcephaly, WHO has confirmed, and the virus is also linked to other serious medical conditions such as Guillain-Barré syndrome, which can lead to total paralysis. Dengue and chikungunya are also a serious threat to public health, with young children, the elderly and those with underlying medical conditions most at risk.

In the Cayman Islands, the project was reviewed by the Department of Agriculture, the Department of Environment, the National Conservation Council, and official approval granted.

As well as Grand Cayman, Oxitec is now currently deploying the technique operationally in Brazil in an area of 60,000 people, where residents have been severely affected by the Zika virus.

Known as the “Friendly Aedes aegypti Project”, the safety and efficiency of the technique was demonstrated through field releases in East End in 2009 and 2010, as well as Brazil and Panama. The Aedes aegypti population was reduced by more than 90 per cent in the areas where these releases took place.

“I remind the public that this technique has been through all the evaluation and approval stages relevant to the Cayman Islands,” said Dr. Petrie. “This is an operational roll-out at a time when we are facing a public health imperative.”

In Grand Cayman, the Oxitec technique will be integrated with traditional controls using insecticides, which are increasingly less effective.

The treatment phase in West Bay is expected to last around nine months and then be rolled out across Grand Cayman, subject to the relevant approvals. Cayman Brac and Little Cayman are not affected by the Aedes aegypti mosquito.
For the official Ministry of Health web portal [http://www.ministryofhealth.gov.ky/]:

**Web title:** GM Mosquito Release Next Week  

**Web blurb:** MRCU steps up fight against the Zika, dengue and chikungunya mosquito.

MRCU Director Dr. Bill Petrie, and Dr. Renaud Lacroix from Oxitec look over a batch of mosquito larvae being reared for next week’s release.