



MOSQUITO RESEARCH
& CONTROL UNIT
CAYMAN ISLANDS GOVERNMENT



OXITEC

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FOR IMMEDIATE RELEASE

GM Mosquito Release Delayed in Grand Cayman

The launch of additional mosquito controls to protect Cayman Islands residents and visitors from Zika, dengue and chikungunya has been delayed by legal action from an objector to the project.

The controls, which involve a pioneering technique using genetically modified, non-biting sterile male mosquitoes, were due to begin in West Bay on Thursday, 14 July 2016.

The “Friendly *Aedes aegypti* Project”, is being carried out by MRCU in collaboration with biotechnology company Oxitec. However, following a court stay - a legal proceeding causing a temporary halt in the project - the release date has been delayed.

“Two weeks ago we had our first two confirmed imported cases of Zika, and last week we had another confirmed imported case, making it more urgent than ever that we use all the tools at our disposal to provide vector control,” said Cayman Islands Mosquito Research and Control Unit (MRCU) Director, Dr. Bill Petrie. “It is therefore regrettable that there is any delay to this project which is being launched to deal with a public health imperative.”

The “Friendly” *Aedes aegypti* males will seek out the wild female *Aedes aegypti* and, when they have offspring, the progeny will die before reaching adulthood. This limits the population of *Aedes aegypti*, helping to reduce the risk of viral transmission among people living in the area.

Zika, along with other viruses, is spread by the day-biting *Aedes aegypti* mosquito, which is an invasive species to the Cayman Islands. The World Health Organization (WHO) has confirmed Zika can cause the birth defect microcephaly, 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. These viruses can also lead to a number of neurological disorders including Guillain-Barré Syndrome, acute myelitis, and meningoencephalitis.

“The technique is recommended by the World Health Organization as a tool to fight Zika,” said Dr. Petrie. “One of the overarching responsibilities of the Ministry of Health is to protect the health and well-being of residents and visitors to the Cayman Islands. As a government agency, MRCU is tasked with controlling the dangerous *Aedes aegypti* mosquito population, using the best arsenal at our disposal, to ensure this happens.”

The genetic modification technique developed by Oxitec has also undergone exhaustive safety testing and evaluation by teams of scientists around the world.

“Understandably, the deferral in launching the Oxitec project for the Cayman Islands is met upon with concern in relation to our obligation to prioritise means to protect the health, safety and well-being of all residents and visitors alike,” said Acting Medical Officer of Health Dr. Samuel Williams-Rodriguez. “That being said, I remain confident in the system of justice and it is my hope that both legally and scientifically all agencies will be permitted to move forward in implementing this worthwhile project.”

The treatment area in West Bay comprises 300 acres between Watercourse Road, Powell Smith Lane, Rev. Blackman Road and Hell Road. It was chosen for the first phase of treatment as the location is at high risk of mosquito-borne diseases.

Oxitec is also currently deploying the technique operationally in an area of 65,000 people in Brazil, a country severely affected by the Zika virus.

The safety and efficiency of the technique was demonstrated through field releases in East End, Grand Cayman, 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. More than 150 million “Friendly” *Aedes aegypti* mosquitoes have been released to date.

The proactive project is being integrated with existing MRCU control methods which include the use of chemical and bacterial insecticides to kill *Aedes aegypti*.

Earlier this year, WHO recommended pilot deployment of the Oxitec technique, under operational conditions, to respond to the Zika crisis which, in February, was declared an international public health emergency.

Further information

Diseases spread by the *Aedes aegypti* mosquito

- Zika virus is rapidly spreading into new countries and has caused a state of emergency in Brazil where it has been linked to a sudden increase in birth defects (microcephaly) and nervous system disorders (Guillain-Barré Syndrome).

- Chikungunya swept into Central America and the Caribbean in 2014 with an epidemic spiking to over a million cases within a year.
- Dengue fever infects an estimated 400 million people globally every year with about half of the world's population at risk.
- Yellow fever is a major health threat. Globally, there are an estimated 200,000 cases of yellow fever, causing 30,000 deaths each year, with 90 per cent of cases occurring in Africa.

About MRCU

The Mosquito Research and Control Unit (MRCU) was established in 1965 to suppress mosquito populations to minimise discomfort from mosquito biting, to protect residents and visitors from mosquito-borne disease, and thereby enhance the quality of life and promote the economy of the Cayman Islands. The department has many years' experience in utilising integrated control to reduce the risk of local transmission of mosquito-borne diseases.

About Oxitec

Oxitec is a pioneer in using genetic engineering to control insect pests that spread disease and damage crops, and was founded in 2002 as a spinout from Oxford University (U.K.). Oxitec is a subsidiary of Intrexon Corporation (NYSE: XON), which engineers biology to help solve some of the world's biggest problems.



Dr. Renaud Lacroix of Oxitec places mosquitoes in the freezer to end their life as they cannot be released next week.

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