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Unapproved GM Mosquitoes Being Shipped to US for Release

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Are you aware that genetically modified mosquitoes are being set for release worldwide? Right after GM mosquitoes were let loose in Brazil, dengue fever cases spiked. Now, the Florida Keys are in danger of facing a similar fate. The mosquitoes haven't even been officially approved, but Oxitec, the British company who created the mosquitoes, has already shipped them to Florida. The only hope is a very vocal grassroots effort to tell the Governor of Florida that these mosquitoes will ruin tourism and possibly turn the natural ecosystem there on its head.

The GM mosquitoes could be released in the Keys as early January or February of next year. Though the approval process is still underway, Oxitec is so sure they will have its way that it shipped the mosquitoes in anticipation.

So far, there are no reported cases of dengue fever in Florida this year, so why do they need GM mosquitoes meant to prevent the spread of such diseases? When they were used in Brazil, they increased dengue fever while upsetting the ecological balance of the area. They did not 'pave the way for dengue fever protection' as Oxitec propagandized. A state of emergency actually had to be declared in the town where the GM mosquitoes were released.

Why on earth would Floridians want to be subject to the same possibility?

Not one environmental or human health study has been conducted on the GM mosquitoes. Once they are released, it isn't as if you can round them all up again if there is a problem. Just like with GM crops, they can also interbreed with non-GM mosquitoes passing on the same traits. Oxitec's own website explains:

> "Oxitec's genetically sterile male Aedes aegypti mosquitoes will mate with the wild (non-sterile) Aedes aegypti females."

The company claims that its approach is different than other genetic manipulations because it is self-limiting, but how in the world could this be so? Since when can you track or alter how mosquitoes mate in the wild?

Director of the Florida Keys Mosquito Control District (FKMCD), Michael Doyle is responsible for keeping the 44 inhabited islands of the total 1,200 that spread across the Florida Straits free from Aedes aegypti mosquitoes. He believes that releasing male GM mosquitoes, specifically designed to pass down a suicide gene that kills their own offspring into the wild, will kill the dengue-carrying mosquito population and prevent new outbreaks.

As Aljazeera reported:

> "We have tried everything from chemical fumigations to parasitic nematodes, dragonflies, everything you could think of," Doyle said.

Last summer the agency deployed a 2-pound drone, hoping the aircraft could help spot potential water breeding grounds in remote areas.

> "It's very difficult to spray everywhere where this mosquito hides and breeds," said Gene Lemire, director of Martin County Mosquito Control. "It's very sneaky."

Of course Oxitec isn't the only company that assumes it can control Nature's balance with GM mosquitoes. Though it has already let GM mosquitoes loose in the Cayman Islands, and Malaysia with no success.

> ". . . all of these recent attempts to turn mosquitoes into malaria- and dengue-killing machines have something in common: The modified mosquitoes need to have lots of sex to spread their altered genes through the wild population. They must live long enough to become sexually active, and they have to compete successfully for mates with their wild peers. And that is a problem, because we still know surprisingly little about the behavior and ecology of mosquitoes, especially the males."

Heather Ferguson from the University of Glasgow studies mosquito ecology. She points out that in the 1970s and 1980s, several companies tried to control the mosquito population by releasing sterile males that would engage females in fruitless sex. The vast majority of the experiments failed.

While it may seem that "it's a more ecologically friendly way to control mosquitoes than spraying insecticides," at least according to Coleen Fitzsimmons, a spokeswoman for the Florida Keys Mosquito Control District, this is a presumptuous statement considering researchers have no idea how the mosquitoes affect an ecosystem or human health over the long term.

GE mosquitoes are touted as a "vital weapon against malaria," but they are really just a vital weapon against nature. Why do Oxitec's 'scientific papers' show up sneakily online without the scientific community or the public being aware until they've already released the mosquitoes into a habitat? It certainly doesn't lend to Oxitec's credibility.

Why did they secretly release GE mosquitoes that could bite humans in Grand Cayman Island? Local there had no idea that Oxitec was completing field trials and releasing these untested GM mosquitoes on their island.

What Could Possibly go Wrong with Biotech Mosquitoes?

- They could cause havoc within the human genome by creating "insertion mutations" and other unpredictable types of DNA damage by getting into the human blood stream – just as has been proven with glyphosate-resistant plants. According to the Institute for Responsible Technology, "*'Insertion mutations' can*

scramble, delete or relocate the genetic code near the insertion site." Large-scale mutations often occur with genetic modification; it doesn't matter if it was a plant or a bug that was altered with biotechnology.

- A geneticist from University of Hawaii, Alfred Handler, states that the GM mosquitoes could develop a resistance to the lethal gene, and then spread it inadvertently (sound familiar?) Entomologist Todd Shelly, another expert from U of H, said that 3.5 percent of the GM mosquitoes survived adulthood despite carrying the 'lethal' gene that is supposed to render them ineffective.

- Male GM mosquitoes grown in a lab are often less vital than non-GM mosquitoes that are born in the wild, so they are less likely to be able to compete with the non-GM varieties. This mean that any 'sterile' offspring are likely going to die, and the non-GMO mosquitoes normally responsible for transmitting dengue or malaria will live on, possibly with mutated genes (received from their GM parents) that make them even stronger.

- Because GM Mosquitoes were produced to die in the presence of antibiotics like tetracycline, and our water supplies are now infected with antibiotics, GM mosquitoes are likely going to thrive as antibiotic resistant bugs, much like 'glyphosate-resistant' crops – which have really only created super weeds.

In the very least, Florida should delay the release of these mosquitoes (even if Oxitec has to lose a crop of GM bugs) in order to more accurately assess their safety.

Here's How You Can Take Action:

Tell the Florida Keys Mosquito Control District to stop the GE mosquito experiments: http://keysmosquito.org/contact-us. You can also call & email at this address: Phone: 305.292.7190 Email: keysmosquito@gmail.com

You can also SIGN a petition.

Additional Sources:

Scientific American

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