

Sterilized GM mosquitoes released in largest field test to combat dengue in Brazil

In Jacobina, a Brazilian farm town where legions of people have suffered from dengue fever, a campaign is fighting back, releasing swarms of mosquitoes engineered to wipe out their own species.

As workers open plastic containers allowing millions of newly hatched *Aedes aegypti* mosquitoes to spread their wings and flutter into the sky in the largest ever field test, it seems counterintuitive. After all, this is the same pesky bug that transmits the dengue virus through a human-to-mosquito-to-human cycle that's surprisingly difficult to break.

Conventional public health campaigns to fight dengue by fumigating and adding larvicide to water tanks have had little impact because *Aedes aegypti* often live and breed inside homes and develop resistance to insecticides. Bed nets used while sleeping are useless because the mosquitoes that carry dengue bite during the day, not at night. Education campaigns urging people to wear repellent and long sleeves have fallen on deaf ears.

The mosquitoes contain a lethal gene, but survive in the Moscamed lab with the help of the antibiotic tetracycline. Once they reach larval stage, the males are separated from the slightly larger females, which are destroyed. The males — which don't bite — are released so they can mate with wild females. Their offspring inherit the lethal gene and die before they can reproduce because, in the wild, there is no tetracycline.

Read the full, original article: [This is the biggest swarm of genetically modified mosquitoes ever set free](#)