US finds GMO mosquitoes won't harm environment

August 5 2016

Transgenic Aedes aegypti mosquitos are seen in containers at a laboratory of biotech company Oxitec, in Sao Paulo, Brazil in 2014

A type of genetically modified mosquito made by the British company Oxitec should pose no danger to the environment, US regulators said on Friday after considering thousands of public comments.

The US Food and Drug Administration's environmental review for the

release of Oxitec's genetically engineered (GE) mosquitoes, known as OX513A, found "the proposed field trial will not have significant impacts on the environment."

The male mosquitoes are engineered so that their offspring will die before they reach adulthood, an approach Oxitec says can reduce the populations of Aedes aegypti mosquitoes that can spread human viral diseases, including Zika, dengue, yellow fever and chikungunya.

The FDA decision does not, however, mean the mosquitoes are immediately approved for commercial use, said a statement from the federal agency.

"Oxitec is responsible for ensuring all other local, state and federal requirements are met before conducting the proposed field trial," said the FDA.

The Florida Keys Mosquito Control District will also weigh in on whether and when to begin the proposed field trial in Key Haven, Florida.

The program would release male Oxitec mosquitoes to mate with wild female Aedes aegypti.

Only female mosquitoes bite and spread disease.

Any offspring they produce would soon die, reducing the size of the mosquito population.

'Exceptional level of control'

"Efficacy trials in Brazil, Panama, and the Cayman Islands have tested this approach, and in each of these trials the population of Aedes aegypti

was reduced by more than 90 percent—an exceptional level of control compared to conventional methods, such as insecticides," said an Oxitec statement.

The prospect of releasing the mosquitoes in the Florida Keys has stirred strong opposition among many residents, and a petition against them on change.org has garnered more than 168,000 signatures.

The FDA said it had reviewed thousands of comments from the public since issuing a draft environmental assessment in March.

"We're delighted with the announcement today that the FDA, after their extensive review of our dossier and thousands of public comments for a trial in the Florida Keys, have published their final view that this will not have a significant impact on the environment," said Oxitec's chief executive officer Hadyn Parry.

"We are convinced that our solution is both highly effective and has sound environmental credentials," Parry added.

"We are now looking forward to working with the community in the Florida Keys moving forward."

Supporters of the modified mosquitoes say they could be a key asset in the fight against Zika, since the mosquitoes that carry the virus can breed in tiny amounts of water, and can be difficult to kill with pesticides.

The United States is now among some 50 countries and territories of the world, most of them in Latin America and the Caribbean, where Zika virus is active.

Florida has announced 16 locally transmitted cases of the Zika virus since July, with all those cases linked to one neighborhood in Miami.

If a pregnant woman is infected with Zika, she faces a higher risk of bearing a child with the permanent skull and brain defect known as microcephaly.