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## Modified Mosquitoes OK'd by FDA for Zika Fight

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(CN) - The Food and Drug Administration has approved a field trial of genetically engineered mosquitoes that may help stem the spread of the Zika virus, the agency said Friday.

The FDA [found](#) no significant cause for concern and that a trial would not present harm to local residents, animals or the environment. The field test will take place in the Florida Keys.

Final approval of the modified mosquitoes has not been given, and will depend on reaction from the public and the effectiveness of the super-insects, which will mate with mosquitoes that carry the Zika virus and dengue fever.

Small tests of the mosquitoes in Brazil have been fairly successful in combating the spread of Aedes aegypti mosquito, which is the primary species that serves as a vector for Zika.

Male mosquitoes engineered to carry a gene that can kill Aedes aegypti mosquitoes are released and mate with females that are vectors for Zika. The resulting offspring die before fully maturing.

The OX513A mosquitoes have been developed by Oxitec, a British company that has created several genetically engineered insects for population control in the insect kingdom.

Efforts to test the effectiveness of engineered mosquitoes stalled due to concerns from residents in Key Haven, a community outside Key West, who are worried that the mosquitoes will cause unforeseen harm to people or the environment.

The potential for more Aedes mosquitoes migrating to the United States as summer draws closer prompted the FDA to approve the field test. The agency had been reviewing Oxitec's application for a few years prior to approval.

The FDA also agreed with many of the findings that Oxitec submitted as part of its nearly 300-page environmental assessment, including that the engineered mosquitoes pose few if any risks to local residents and the environment.

"FDA found that the probability that the release of OX513A male mosquitoes would result in toxic or allergenic effects in humans or other animals is negligible based on the sponsor's draft environmental assessment," the FDA wrote in its preliminary finding of no significant impact.

Questions have also been raised about the efficiency of releasing massive amounts of mosquitoes with genes that kill Zika vectors, which will require several rounds of the mosquitoes to be released.

"The only limitation of that approach is that it requires what I call an inundation, continuous release, every generation, of a large number of these males, up to 20 times the population size," Dr. Omar Akbari, associate professor of entomology at University of California, Riverside, told Courthouse News. "As you can imagine, that's a significant undertaking and requires a huge effort."

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