

Alphabet Inc. successfully tested mosquitoes by transplanting viruses into male mosquitoes

A pilot program led by Alphabet Inc, Google's parent company, aims to wipe out disease-causing mosquitoes.

A pilot program led by Alphabet Inc, the parent company of Google with the goal of wiping out disease-causing mosquitoes, has achieved extremely satisfactory results in three test locations in Central Valley, California, with the number of mosquitoes. Significant reduction only after a short time of deployment.

High-tech mosquito extermination is one of Alphabet's ambitious public health projects, led by a team of biotechnology development teams under the Verily group. According to experts, killing and stopping the outbreak of mosquitoes is just as important as preventing pandemics, because this is an intermediary animal, the host transmits many dangerous diseases to humans. The diversity of species and the rapid reproduction of mosquitoes make traditional methods of extermination seem ineffective, requiring the help of more modern technology.

Since 2017, Alphabet has released millions of *Aedes aegypti* male mosquitoes grown in laboratories into several test areas in Fresno County during the mosquito breeding season. All lab-derived mosquitoes have been implanted into a common bacterium called *Wolbachia*, reducing their fertility. When these males mate with females in the wild, they will also pass the bacteria on to females. In addition, the *Wolbachia* bacteria can inhibit the growth of Dengue virus that causes dengue fever in mosquitoes.



Mosquito culture in the laboratory

In a test result published on March 6, Alphabet revealed that during the peak of the 2018 mosquito season (from July to October), Wolbachia-infected males had caused a 'recession. 'succeeds in more than 93% of female mosquitoes at trial sites. As a result, the number of mosquitoes in general and the number of mosquitoes carrying dengue virus in particular in the test areas decreased rapidly.

In hot, humid regions of tropical and subtropical regions, diseases caused by *Aedes aegypti* mosquitoes, such as dengue fever, Zika virus and chikungunya, kill tens of thousands of people each year. The mass release of Wolbachia-infected mosquitoes into the wild can help wipe out entire populations of infected mosquitoes as well as the diseases they carry.

Alphabet is not the only technology company pursuing plans to exterminate this dangerous animal. Bill Gates' Microsoft has also pledged to spend more than \$ 1 billion to support malaria eradication projects, including genetically modified mosquitoes experiments.

Alphabet's efforts are not only evidence that biotechnology can help wipe out disease-causing mosquitoes, but also show a potential option for large-scale deployment while not affecting lives. of people. Last year, Alphabet's Verily group released about 14.4 million mosquitoes infected with Wolbachia in Fresno County, California, United States.



Automatic sorting machine at Verily laboratory

Currently, Alphabet is promoting research on auxiliary technologies, such as an automated process that separates male and female mosquitoes from the laboratory. Or software to help determine exactly where male mosquitoes are dispersed for maximum effectiveness. In addition, the company also plans to expand its pilot project in many other areas of the world, especially in hot and humid climates where mosquitoes are raging almost all year round. Immediately, Alphabet's project is being implemented in 121 residential areas in the US, as well as some countries in South America and the Caribbean.

You finished reading the article "**Alphabet Inc. successfully tested mosquitoes by transplanting viruses into male mosquitoes**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.