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Scientist have found a novel solution to control the Mediterranean fruit fly which causes extensive damage to crops. Scientists at the University of East Anglia (UEA) and Oxitec discovered that the release of genetically engineered male flies could be used as an effective population suppression method, which can save crops around the world.

Researchers simulated a wild environment within greenhouses and studied the impact of releasing Oxitec flies. "The Mediterranean fruit fly infests more than 300 types of cultivated and wild fruits, vegetables and nuts. It is a real pest to agriculture and causes extreme damage to crops all around the world," said lead researcher Dr Philip Leftwich, from UEA's school of Biological Sciences. He added, "The genetically engineered flies are not sterile, but they are only capable of producing male offspring after mating with local pest females - which rapidly reduces the number of crop damaging females in the population."

He further explained, "When we tested the release of the genetically modified male flies, we found that they were capable of producing a rapid population collapse in our closed system. This method presents a cheap and effective alternative to irradiation. We believe this is a promising new tool to deal with insects which is both environmentally friendly and effective."

The method works by introducing a female-specific gene into the insects that interrupts development before females reach a reproductive stage.

The research was published in the journal Proceedings of the Royal Society B.