GM moths could offer non-toxic pest control option for vegetables

A genetically modified moth could help curb a major pest of vegetable crops around the world, research suggests.

The diamondback moth feeds on cabbage, broccoli and other crucifers causing an estimated \$5bn in damage per year.

But male moths with a "self-limiting" gene produce female offspring that do not survive to reproduce.

When released into the wild to mate with wild-type females, the GM male moths should over time cause populations of the pest to crash.

A new study published in BMC Biology shows that the technique works very well in confined conditions.

The GM moths have been developed by the British company Oxitec, based in Oxford. And the publication of the paper comes ahead of field trials of the GM moth – in which the insects will be studied under netting – at Cornell University in New York this summer.

Opening doors

The tests outlined in the latest study were conducted in 2013 in greenhouses at Rothamsted Research in Hertfordshire. The results show that populations were brought under control within 10 weeks of starting GM moth releases.

"This research is opening new doors for the future of farming with pest control methods that are non-toxic and pesticide-free," said Dr Neil Morrison, lead research scientist on the diamondback moth programme at Oxitec and a co-author on the paper.

Oxitec points out that other methods for pest control such as insecticides can affect a broad variety of insect life including pollinators such as bees. The GM moth approach, meanwhile, is species-specific, affecting only the targeted pest. The moths can be eaten by birds or other animals with no adverse effects.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: <u>GM moths 'can curb pest invasion'</u>