

## Natural insecticide from tobacco plants could fend off crop pests without killing them

Although it's associated with nasty cigarettes, the tobacco plant is also a potential source of [vaccines](#), [biofuel](#) and [antibiotics](#). Now, a chemical from the plant is also being used as a bug repellent for crops, which could replace eco-unfriendly insecticides.

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Led by Prof. Thomas Brück, a team from the Technical University of Munich isolated the sections of the tobacco plant genome responsible for the formation of CBTol molecules, and then incorporated those into the genome of genetically-modified *E. coli* bacteria. When fed with wheat bran (obtained as a byproduct from grain mills), those bacteria subsequently produced CBTol.

Using that chemical, the scientists created a biodegradable, non-toxic and environmentally-friendly repellent that can be sprayed directly onto crops of all types. In lab tests, aphids passed over plants that were treated with the spray, going instead for untreated plants. And as a side benefit, the repellent also kills several types of gram-positive bacteria that are harmful to humans.

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A paper on the research was recently published in the journal [Green Chemistry](#).

**Read full, original post:** [A tobacco-derived insect repellent – for crops](#)