Scientists hoping to prevent two crop-eating caterpillar species from combining to form ‘super pest’

Australian-led research could help save the world’s farmers more than $6 billion lost every year to its most voracious caterpillars.

The cotton bollworm and the corn earworm — Helicoverpa armigera and Helicoverpa zea, respectively — are humanity’s greatest competitors for food and fibre, according to CSIRO scientist John Oakeshott.

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Dr Oakeshott and CSIRO colleague Karl Gordon worked with a team of international researchers for eight years, mapping the entire genome of the pests.

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The caterpillars feed on more than 200 types of crops including cotton, tomato, corn, soybeans and chickpeas, costing farmers in Australia, Asia, Europe, Africa and the Americas billions of dollars in lost crops and control measures.

The scientists discovered that the bollworm and earworm have many more genes for tasting, digesting and detoxifying than other caterpillars, and that the bollworm, which is dominant in Australia, is a genetic warhorse.

“Its genetic arsenal has allowed it to outgun all our known insecticides through the development of resistance, reflecting its name — armigera — which means armed and warlike,” Dr Oakeshott said.

He said that the two caterpillars were so genetically similar there is a real danger the two could hybridise to create a new super pest.

[Read the full study]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Scientists in race to stop caterpillars developing into hybrid super pests