

Largest GMO study in history confirms safety, cost benefits of GMOs

The largest GMO study in history, published last week in [PLOS ONE](#), confirms that genetically modified crops have large, widespread benefits.

The review in question is a meta-analysis. This is a statistically rigorous study of studies, rather than a mere summary of the literature. Its authors, Matin Qaim and Wilhelm Klümper, both of Göttingen University, in Germany, went through all examinations of the agronomic and economic impacts of GM crops published in English between 1995 and March 2014.

The study found herbicide-tolerant crops have lower production costs—though this was not true for insect-resistant crops, where the need for less pesticide was offset by higher seed prices, and overall production costs were thus about the same as for unmodified crops. With both forms of modification, however, the yield rise was so great (9% above non-GM crops for herbicide tolerance and 25% above for insect resistance) that farmers who adopted GM crops made 69% higher profits than those who did not.

Dr Qaim and Dr Klümper found that GM crops do even better in poor countries than in rich ones. Farmers in developing nations who use the technology achieve yields 14 percentage points above those of GM farmers in the rich world. Pests and weeds are a bigger problem in poor countries, so GM confers bigger benefits.

Read full original article: [Genetically modified crops: Field research](#)