Rothamsted Research calls for more GMO trials or global food security will suffer

Genetic modification of plants will be essential to avert future food shortages, conclude a group of agricultural scientists who have reviewed how biotechnology developments over the past 35 years have shaped the efficiency of crop production.

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The team, from Rothamsted Research in the UK and from Syngenta Crop Science and Symmetry Bioanalytics in the US, present their review as an online opinion article in Trends in Plant Science [read the full study here (behind paywall)].

“Our knowledge of the genes that limit yield in field conditions needs to be developed,” says Matthew Paul, plant biochemist at Rothamsted and leader of the review team. “At the moment, results that show promise in the lab don’t always work in the field.”

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He highlights how GM research at Rothamsted identified a sugar, trehalose 6-phosphate (T6P), that controls the volume of starch in cereal grain and, in GM field trials, substantially improved maize yields in the field, from 10% in well-watered crops to 120% under drought conditions.

“But we got there only because field trialling was conducted in parallel with fundamental science of which genes to target and how to target them in the field environment,” says Paul.

The GLP aggregated and excerpted this article to reflect the diversity of news, opinion and analysis. Read full, original post: Food Security Needs More from GM crops