

GMO photosynthesis breakthrough: Genetically-tweaked food crops harness sunlight 20% more efficiently

Researchers developed a way to make photosynthesis – the natural process that all plants use to convert sunlight energy into food – more efficient.

The research team, which is spread across UK and US, genetically altered soybean plants, and achieved a 20% greater crop yield.

They hope this breakthrough will help alleviate food scarcity.

Lead researcher Prof Stephen Long, an agricultural scientist based at both the University of Illinois and the University of Lancaster, said that this was “the most important breakthrough” he had been involved in during his long career.

“We’ve been looking at photosynthesis and why it might be inefficient for 30 years,” he told BBC News.

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These scientists tackled one small but critical part of that process: In very bright sunlight, plants switch into a protective mode and release excess energy as heat, to avoid damage to their cells. But it takes several minutes for a plant to switch out of “protective mode” and back into “fully productive growth mode”.

In their genetic approach, these Illinois and Lancaster University scientists tweaked the genes responsible for this protective function and made their experimental soy plants “switch back” more swiftly. The leaves of these genetically modified plants gained more photosynthesis time, which increased the total crop yield by 20%.

[**This is an excerpt. Read the original post here**](#)