

Viewpoint: In a world of dysfunctional food systems, is it realistic to hope for CRISPR gene editing to save agriculture?

Considering that farmers already lose [20-40 percent](#) of their crop yields to pests, which costs them \$200 million per year, they can't afford to surpass this amount.

Especially not when [920 million people](#) already live with food insecurity at a severe level – around 11 percent of the human population.

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CRISPR-strengthened foods could become a major lifeline for humanity (and all its farmers), as climate scientists [have warned](#) that crop-destroying fungi, bacteria, and insects will become far more difficult to avoid in a hotter world.

Combine these issues with a growing number of climate refugees, never-ending urbanisation, the loss of arable land, and overuse of pesticides and fertilisers – we've got a clusterfuck of issues to deal with.

Luckily, we've already got a bit of a leg up.

Those working in agriculture have identified various positive traits in certain crops, thanks to selective breeding. This has enabled farmers to fend off larger losses by favouring plants that produce bacterial proteins capable of killing or repelling pests.

Because many viruses need plant proteins to grow, multiply, and spread, it is possible that researchers can utilise CRISPR to eliminate or alter plant proteins a particular virus likes to take advantage of.

This would allow the plant to resist being hijacked by a foreign organism.

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