

BBC quick guide: GM food

What is GM food?



Genetically modified food is produced from plants which have had their **genetic make-up** changed in the lab.

Scientists "cut and paste" a **gene** from another **organism** into a plant's **DNA** to give it a new characteristic.

This can be to **increase yield** or to allow the plant to exist in a more hostile environment than normal.

Pro-GM scientists say this means cheaper more plentiful food but **opponents** argue we do not know the consequences of **meddling with nature**.

How does GM work?

The first step in GM is identifying a gene for a particular characteristic such as herbicide resistance.

The gene, which may come from any other organism, is inserted into the DNA of a plant **cell**, giving it that **trait**.

This means, for example, that a field can be sprayed with weed killer and the **GM crops** will be unaffected.

Plants can also be modified for pest resistance and for bigger **yields**.

Controversy

Farmers have modified their crops for thousands of years by crossing similar **species**. However, modern GM is **controversial**.

Critics say the modified crops could "escape" and cross with wild plants, with unknown consequences.

They also argue that more **chemicals** are used on some GM fields which may have a negative impact on wildlife.

And while no study has found GM food to **be harmful to** humans, opponents say it is too soon to be sure.

Defence

Supporters of GM say **there is no evidence** that **modified crops** cause illness in humans.

They say the regulatory structures that govern GM foods are in many ways far stricter than for **conventional foods**.

As for environmental concerns, they argue that GM crops can mean less use of **agro-chemicals** such as **pesticides**.

Those that are used have low toxicity, are rapidly degraded and stay in the soil rather than being washed into rivers, they say.

