

Americans – nearly half (49%) of the population. Does a GM diet play any part in this alarming rise in disease? Without proper research, we can't say "yes", but neither can we say "no".

### **Can't I simply choose not to eat GM food?**

In the EU, GM foods, or foods containing GM ingredients, must be labeled as such. However, anyone who drinks non-organic milk or eats non-organic meat and dairy products in Europe is supporting the GM industry. Around 30 million tonnes of GM animal feed (predominantly soya and maize) are imported into the EU each year – to feed to pigs, poultry, dairy and beef cattle, as well as farmed fish.

The products from these animals – meat, dairy, eggs – are not required to be specially labeled.

Other hidden GM ingredients include preservatives, soya lecithin, aspartame and wine yeasts. Surveys show that around 40% of takeaway meals are cooked using GM oils – and while UK restaurants are required to tell customers this, the majority don't. All of this makes it very difficult to 'choose' whether or not to eat GM.

### **Is it ok to grow GM crops so long as we don't eat them?**

Whatever their end uses, GM agricultural crops have implications for those who grow them, and the surrounding communities and environment. Whether Bt cotton or crops grown for biofuel, these plants can cross pollinate, are sprayed with high levels of toxic chemicals, and commit farmers to a treadmill of rising annual seed and chemical costs.

### **What's the scale of the issue?**

Since the first commercial plantings in North America in the late 1990s, GMOs have spread globally. By 2012, over 17 million farmers in 28 countries were growing GM crops on 170 million hectares – that's more than 12% of the world's arable land.

Today in the USA, GM crops account for about half of harvested cropland. Around 94% of the soya, 93% of corn (maize) and 96% of cotton grown is GM. Without labeling people in the US have no power to choose whether they want to eat GMOs or not. Is this really what we want in the UK and the rest of Europe?

### **It's not really an issue in the EU though is it?**

In the Europe things are different. Only two commercial GM crops have been approved in the EU. One is a pest-resistant Bt maize (known as MON810) grown mainly for use in animal feed; the other is the Amflora potato, genetically modified to produce starch for use in paper-making, grown in small quantities in Sweden and Germany between 2010-12 before being withdrawn.

In the EU, more land is under organic cultivation than GM. In 2011, GM crops were grown on 0.1% of arable land in Europe, compared with nearly 4% for organic. Government plans to allow GM in the UK and the rest of Europe crops could threaten this.

But numerous field trials of GM crops are taking place in preparation for producing commercial crops. For instance, in the UK we have recently had field trials of a GM camelina (false flax) and wheat trials are planned for 2015.

**As consumers and voters, we have an opportunity – maybe even a responsibility – to raise our voices to protect our food system for ourselves and for generations to come.**



References available at [www.beyond-gm.org](http://www.beyond-gm.org)



**Beyond false promises  
Beyond failed technology  
Beyond corporate control  
Beyond environmental harm  
Beyond gambling with our health**

[www.beyond-gm.org](http://www.beyond-gm.org)

**FOOD FOR  
THOUGHT**

Common questions about GM



# FOOD FOR THOUGHT

## Answers to common questions about GM

### Isn't GM just the same as traditional plant breeding?

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Selective breeding is not the same as genetically engineering, which, by its very definition, alters genetic material in ways that could simply never occur in nature. Fragile and highly complex ecosystems now have to accommodate transgenic species that could never have evolved naturally – and the risks and consequences of this cannot be predicted.

### Don't we need GM to create new and improved crops?

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We often hear about new crop varieties with special properties – such as drought or flood resistance – or nutritional benefits – such as fish oil producing 'flax'. For most of these new varieties – including high antioxidant tomatoes, beta carotene-rich bananas – naturally occurring, selectively bred varieties already exist. People can grow and eat them today, right now – rather than waiting decades for them to be developed via GM.

### Doesn't turning our backs on GMOs condemn millions to starvation?

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It's an old argument that GMOs are necessary to feed the world. Quite simply, they are not – and promoting this idea distracts us from the key issues of poverty, lack of access to food and increasingly, lack of access to land to grow it on which we need to act on.

According to a recent United Nations report, while "international policy discussions remain heavily focused on increasing industrial agricultural production," hunger is not caused by a food shortage

but by "a lack of purchasing power and/or the inability of the rural poor to be self-sufficient." GMOs are not, and cannot be, the answer to address these fundamental problems.

### Surely scientifically-produced seeds must be good for everybody?

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For centuries, farmers and plant breeders have selectively raised crops to produce varieties adapted to each area's specific soil, geography and climate. In contrast, the biotech industry promotes homogenous varieties via seed patenting and industrial agriculture. Loss of seed choice threatens traditional food cultures and food security, whilst vast agricultural monocultures result in a dramatic loss of plant diversity.

### Doesn't new industry mean more economic opportunities?

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The GM industry is quietly transforming food into a patented commodity owned by just a handful of multinational companies. Three agrichemical firms – Monsanto, DuPont and Syngenta – now control 53% of the global commercial seed market. The top ten seed firms, with a majority stake owned by US corporations, account for 73%.

GMOs may create economic opportunities for already rich corporations, but more often than not, they mean less opportunity and less profit for the small farmers in developing nations who grow the majority of the world's food.

### Doesn't GM make economic sense for farmers?

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GM crops were sold with the promise of consistently better yields and less use of expensive pesticides, leading to more profitable farming. They have largely failed to deliver. Studies from the USA have shown that profits have been highly variable, chemical costs have spiraled and cost of the seeds, which cannot be

legally saved for replanting, now stands at around 3-6 times that of conventional seed. Ultimately higher costs for farmers will lead to higher costs for consumers.

### But don't farmers have a choice of whether to grow GM crops?

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Even farmers who have chosen not to go down the GM route can still find their fields contaminated with GM crops. Cross-pollination between related species of plants can occur, and GM and non-GM seeds can be mixed together during storage. The more land planted with GM crops, the more this contamination will become a problem for non-GM, and especially organic farmers and the organic industry. Contamination can cost farmers valuable export licenses or organic certification, ruining livelihoods.

### Aren't GM crops are strictly regulated for safety?

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Amazingly GM crops are 'safety tested' by the same companies that develop them. Plus, regulations vary from weak (EU) to non-existent (USA). No human studies have ever been done to show the safety of eating GM foods and there are important gaps in our understanding of their potential toxicity. So much so that in late 2013, nearly 300 scientists and legal experts signed a statement affirming that there was no scientific consensus on GMO safety and that such trials as exist suggest real potential for harm from eating GM foods.

### Millions of Americans eat GMOs every day and they're fine!

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Millions of Americans do indeed eat GM food every day. But with no GM food labeling and no epidemiological studies carried out, it's not scientific to claim that there is no health impact. In fact, in the US, rates of chronic disease, such as heart disease, asthma, cancer and diabetes are on the rise. By 2025, chronic diseases will affect an estimated 164 million