

Family Friendly Factsheet

GM Foods



What are GM foods?

GM, or genetically modified, foods are foods containing ingredients which have been modified using gene technology. This technique involves altering the DNA of an organism, or transferring genetic material between organisms.

When were GM foods introduced?

The technique of breeding organisms to obtain the most desirable characteristics has been used by farmers for hundreds of years, for example, the cross breeding of cows to give the best produce. This technique involves mixing the genes of different breeds to produce an organism with the most desirable genes from each breed. Genetically modifying the organism gives the same effect but is more accurate and specific than traditional methods. The first GM plant was created in 1983 and since then, scientists have developed many more crops such as rice and maize with genes for insect or herbicide resistance.

Why are GM foods produced?

Genetically modifying foods allows for the alteration of certain characteristics which would be hard to achieve otherwise, for example, it is possible to insert a gene for insect resistance into plants, reducing the need for pesticides. It is even possible to increase the nutritional value of fruit and vegetables or accelerate the growth rate of animals using gene technology.

How are GM organisms used?

GM products may be consumed directly, for example fruits and vegetables, or used as ingredients, for example GM maize which has been made into flour. These products contain GM material and therefore must be labelled as GM food. Although a GM organism may have been used in the production of a food, the food itself may not have GM content, the GM organism is simply part of the processing of the food and the final product does not contain any GM substances. Similarly, the use

of GM animal feed does not mean that the final product contain GM material.

Are GM foods safe?

As DNA is present in the food we eat normally, GM foods should not cause any health risks. GM foods are assessed by the European Food Safety Authority (EFSA) before being sold in the EU. In June 2000, the Board of the Food Standards Agency said that the safety assessment procedures of GM foods were sufficient and that approved GM foods were as safe as non-GM foods. Every GM food must be assessed for any toxicological, nutritional or allergenic risks before it can be sold. Other groups such as the Chief Medical Officer and the Chief Scientific advisor of the UK government, The Royal Society and The World Health Organisation (WHO) have assessed GM foods and concluded that GM foods have been sufficiently tested and that there is no scientific evidence that GM foods are harmful.

Should I eat GM foods?

Although there is no evidence that consumption of GM foods is harmful, some people prefer not to eat GM produce. In order to give consumers this choice, GM food must be labelled as such. There is concern over the possibility that GM foods may cause unexpected allergic reactions, meaning that GM foods may require extensive testing to ensure that this risk is minimised. There is also debate about the economic and environmental consequences of GM foods production causing some people to avoid GM food consumption.

What is the future of GM foods?

Scientists are currently developing crops with added nutritional value by altering fat, protein or vitamin levels. Also, the possibilities of altering crops to enable them to grow on previously unsuitable land, altering foods to remove allergens and improving the resistance to disease of plants are being researched.

