Food from Genetically Engineered Plants

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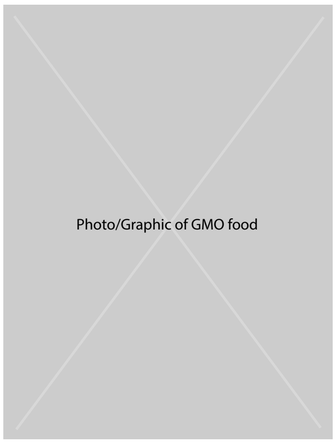
GMOs 101: Your Basic Questions Answered



What makes it a GMO?

A GMO (genetically modified organism) is a plant, animal, or microorganism that has had its genetic material (DNA) changed (modified) using technology that generally involves the specific transfer or direct modification of DNA. Scientists often refer to this process as genetic engineering (GE).

Is it called GMO or GE or something else?

"GMO" has become the common term consumers and popular media use to describe foods that have been created through genetic engineering (GE). "Genetic engineering" or "GE" is the term typically used by scientists, but you're not likely to see "GE" on labels on grocery store shelves. However, you may start seeing the word "bioengineered" or "BE" on labels on some of the foods we eat because of the new U.S. food labeling law. When you see the label, it lets you know the product, or some of its ingredients, contain DNA from GMOs.

What GMO crops are out there?

Corn, soy, canola, and cotton make up 99 percent of the world's GMOs. Seventy-two percent of GMO corn and 60 percent of GMO soy go to feed livestock such as cows and chickens. The fact is, you won't find many GMO fruits or vegetables in the produce section of your grocery store. Most GMO crops developed for consumers go into processed foods like cereal, snack chips, and vegetable oils. GMOs are a common part of today's food supply.

GMO crops currently available in the United States:

- Alfalfa
- Apples
- Canola
- Corn
- Cotton
- Papaya
- Potatoes
- Soybeans
- Squash
- Sugar beets

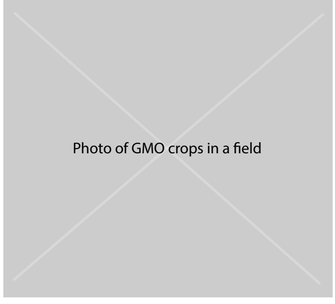
Non-GMO versions of these crops are also available.

Why do we have GMOs?

All forms of agriculture, including organic and conventional, involve the process of modifying (changing) plants. Humans have used traditional ways to modify crops and animals to suit their needs and tastes for more than 10,000 years. Cross-breeding and selective breeding are examples of traditional ways to make changes. The reasons for genetic modification today are likely similar to what they were thousands of years ago: higher crop yields, less crop loss, longer storage life, better appearance, better nutrition, or some combination of these.

Do GMOs affect our health?

GMO foods are as healthful to eat as their non-GMO counterparts. Some GMO plants have been modified to improve their nutritional value. An example is GMO soybeans with healthier oils that can be used to replace oils that contain *trans* fats. Since GMO foods were introduced in the 1990s, research and regular monitoring have shown that they are just as safe as non-GMO foods. Additionally, research from USDA shows no harmful impacts in cows and chickens that eat animal feed made with GMOs.



Do GMO plants reduce pesticide use?

It's a complex issue. Some GMO plants are developed to be resistant to insects. These GMOs have greatly reduced the need for and use of many pesticides. Other GMO plants are developed to tolerate certain weed killers. Some people are concerned that farmers who grow these GMOs will use more weed killers, which could lead to some weeds developing resistance to these chemicals.