



# FACT SHEET

## GENETICALLY MODIFIED FOOD (GMOs)

Today, consumers are more concerned than ever about the food they eat. Much has been said about genetically modified organisms, which are commonly known as GMOs, yet there's a lot of misleading information out there that's unnecessarily frightening shoppers.

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### THE FACTS YOU REALLY NEED TO KNOW:

#### What Is A GMO?

- GMO stands for Genetically Modified Organism—a process by which genes can be added to or removed from a food item to make it better. For instance, certain allergens or pesky seeds can be removed, or vitamins can be added to make the food item more nutritious.
- GMOs have been used for over twenty years and today they are present in around 70 percent of processed food (mostly in items that contain corn and soy).

#### GMO's Safety Record

- To date, **2,000 studies** have been conducted on GMOs to ensure their safety. Not one study has shown any harm associated with eating GMOs. Not one!
- In a **landmark 2014 study**, researchers examined nearly three decades of health data on over 100 billion farm animals and found not one animal became ill from eating GMO feed.
- The U.S. Food and Drug Administration, the U.S. Department of Agriculture, The American Association for the Advancement of Science, the American Medical Association, and the **National Academy of Sciences** have all declared GMOs to be safe for human and animal consumption.
- International organizations agree. The World Health Organization, The French Academy of Science, Food Standards Australia/New Zealand, The Union of German Academics of Sciences and Humanities, The European Commission, The Royal Society of Medicine as well as the academies of science in Brazil, China, India, and Mexico have all found GMOs to be safe.



### THE BENEFITS OF GMOs:

#### GMOs and Medicine

- GMO technology isn't only used for food; **life-saving medicines are made** using biotechnology. Numerous organisms—bacteria, yeasts, mammalian cells, and others—are engineered to produce different drugs.
- Among the over 100 GE drugs on the market today are insulin for diabetes, treatments for hemophiliacs, recombinant hepatitis B vaccine, tissue plasminogen activators which are used for cardiovascular patients, and medicines still in development, like “edible vaccines.”
- These drugs, many of which have been used for decades, are injected directly into a human's blood stream and have helped millions of people manage deadly diseases.
- The development of these treatments and pharmaceuticals is one of the reasons **life expectancy continues to go up**.

## GMOs and the Environment

- Crops grown with GMO seed use less agrochemicals. According to a study published in PloS One, GMO seed reduced pesticide use by 37% and pesticide cost by 39%. Reductions in agrochemicals are good for the environment.
- GMO crops have higher yields which means less land is used. In fact, [according to a new study](#) published in the highly respected scientific journal Nature found that organic crops yielded 26 percent lower than conventional agriculture.

## GMOs Humanitarian Role

- GMO technology can make food more nutritious. For instance, in the developing world, rice is a common staple. Yet, because rice doesn't contain vitamin A, many children suffer from vitamin A deficiency, which can lead to blindness and even death. Thanks to GMO technology, scientists have modified rice to contain beta-carotene (a source of vitamin A), which could save millions from disability and death. GMO crops have also been developed to be disease resistant and to grow in arid environments, which would help those who live in sub-Saharan Africa and other developing regions.

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## **THE REASONABLE MOM SAYS:**

GMOs aren't ingredients. Genetic modification is simply a process by which food can be made better, more nutritious, and easier to grow with less impact on the earth. [The United Nations estimates](#) that the world population will reach 8.5 billion by 2030, 9.7 billion in 2050 and 11.2 billion in 2100. A question for all reasonable people to ponder: How will we feed all of these people? What needs to be done to provide for the human race?

Technology is nothing to be feared. GMO technology can be used to create the food and medicines we need to improve the lives and condition of all humankind.

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## **HAVE MORE QUESTIONS? CHECK THESE SOURCES:**

- **Genetic Literacy Project:** The Genetic Literacy Project (GLP) is a 501(c)(3) nonprofit that explores the intersection of DNA research and real world applications of genetics. The GLP promotes public awareness and constructive discussion of genetics, biotechnology, evolution and science literacy.
- **GMO Answers:** GMO Answers is where independent experts in the fields of agriculture and science are tasked with answering consumer questions about GMOs. They are not paid to do this but rather donate their time.
- **Nurse Loves Farmer:** Sarah Schultz is a mom of three, a nurse and the wife of Jay Schultz—a Canadian farmer. She knows a lot about agriculture, pesticides and GMO technology. Plus, she has recipes on her website!
- **Dr. Kevin Folta:** Dr. Folta is the chairman of the Horticultural Sciences Department at the University of Florida, Gainesville where he teaches about biotechnology. He hosts a weekly podcast where he tries to educate people on the not so scary realities of plant biology.
- **Biofortified:** This organization's logo is an ear of corn called "Frank N. Food." Their motto is "Stronger Plants, Stronger Science, and Stronger Communication." Their mission is to "enhance public discussion of biotechnology and other issues in food and agriculture through science-based resources and outreach." What's not to love?

**REASONABLE MOM URL, CALL TO ACTION, OTHER SHORT INFO?**