

Top 10 Consumer Questions About GMOs Answered



The following are the Top 10 consumer questions and answers have about GMOs, based on Internet searches, traffic to the GMO Answers website, and in-person events.

1. Do GMOs Cause Cancer?

No. There is no evidence that GM food causes cancer. Dr. Kevin Folta from the University of Florida states it simply. "The short answer is no, there is absolutely zero reputable evidence that GMO foods cause cancer."

2. Are GMOs Safe For Human Consumption?

Yes, the health and safety of GMOs have been validated by many independent scientists and organizations around the world. "There is no substantiated case of any adverse impact on human health, animal health or environmental health, so that's pretty robust evidence, and I would be confident in saying that there is no more risk in eating GMO food than eating conventionally farmed food," the European Commission's Chief Scientific Advisor Anne Glover told EURACTIV in a media interview.

The U.S. National Academies of Science, Engineering, and Medicine (NAS) researched this very same question and concluded that GMOs are safe. Since 1992, more than 40 government agencies around the world have given approvals for GMO food, feed, and cultivation. In many countries, multiple agencies are involved in the regulation of GMOs.

3. Aren't GMOs unnatural?

"Genetic modification" of agricultural crops has been going on for millennia. In today's world, virtually every crop plant grown commercially for food or fiber is a product of genetic modification – such as cross-breeding or hybridization. Traditional breeding methods include selecting and sowing the seeds from the strongest, most desirable plants to produce the next generation of crops. As a result, most of today's crop plants bear little resemblance to their wild ancestors.

4. Do GMOs Have an Impact on the Environment?

GMO crops are key assets in improving environmental sustainability in agriculture by allowing farmers to produce more crops, using less inputs. This can decrease agriculture's impact on habitats, while also conserving soil, water, and energy. GMOs can: preserve biodiversity by sparing lands not intensely cultivated; increase productivity; reduce soil erosion; conserve water and may lead to fewer pesticide applications.

5. Have Long-Term Health Studies Been Conducted on GMO Crops?

Yes, many long-term health studies have been conducted on GMOs¹. Aside from the fact that GMOs have a long and safe track record, GM crops are repeatedly and extensively tested for consumer and environmental safety. The health and safety of GMOs have also been validated by many independent scientists and organizations around the world. Groups ranging from the World Health Organization, the Royal Society of Medicine (UK), the European Food Safety Authority (EFSA), and the International Seed Federation (ISF), along with various governing bodies on every continent around the world have all affirmed the safety of GMO crops.

¹ Distinction Between Genetic Engineering and Conventional Plant Breeding Becoming Less Clear, Says New Report on GE Crops, The National Academies of Sciences, Engineering and Medicine. Retrieved from <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=23395>.

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6. Do GMOs Have an Impact on Allergies?

No. GMOs on the market today do not introduce any new allergens. However, if a person is allergic to a non-GMO plant, like soy, for example, he or she will also be allergic to the plant's available GM counterpart.



7. If Livestock Eat Genetically Modified Grain, Will There Be GMOs in My Meat?

No. It has been estimated that over 70 percent of harvested GM crops are fed to food-producing animals, making the world's livestock populations the largest consumers of the current generation of GM crops. GMOs have never been detected in the milk, meat or eggs derived from animals fed GM feed.

According to Alison Van Eenennaam, Ph.D., extension specialist in animal genomics and biotechnology at the University of California, "Genetically engineered crops are digested by animals in the same way as conventional crops."

8. Can GMO crops contaminate neighboring non-GMO and/or organic fields?

Co-existence in agriculture is not new, nor unique to GMO crops; it is the practice of growing crops different quality characteristics of intended for different markets in the same vicinity without becoming commingled and possibly compromising the economic value of both. Farmers have a long history of cooperating with their neighbors to isolate crops from adjacent fields for the purpose of producing high-value crops under identity-preserved systems.



Crops will only pollinate other varieties of the same crop and will only occur to a significant degree if the crops are sufficiently close, the flowering periods are the same, and the receiving crop has not already self-pollinated. In the United States, there is not a single documented case of an organic farmer losing his or her organic certification due to contamination from a GMO crop.

9. Do Seed Companies Have an Influence on Whether or Not Farmers Grow GMOs?

No. Brian Scott, a farmer who grows corn and soybeans among other crops, answers this question simply, "I choose what seeds I plant every year. I'm not locked into buying seed from one company from one season to the next."

10. Do GMO Crops Have an Impact on Bees or Butterflies?

The sudden and widespread disappearances of adult honey bees from hives, termed Colony Collapse Disorder (CCD), became a national concern more than 10 years ago. Claims have been circulated that GMO crops harm bees, but these assertions have been refuted by the mainstream scientific community.

For more information, visit <https://gmoanswers.com/top-10-consumer-questions-about-gmos-answered>

²Van Eenennaam, A. GMOs in animal agriculture: time to consider both costs and benefits in regulatory evaluations (2013). Retrieved from <https://jasbsci.biomedcentral.com/articles/10.1186/2049-1891-4-37>.

³Van Eenennaam, A. Genetic Engineering and Animal Feed. Retrieved from <http://anrcatalog.ucanr.edu/pdf/8183.pdf>.

⁴Report on the National Stakeholders Conference on Honey Bee Health. Retrieved from <http://www.usda.gov/documents/ReportHoneyBeeHealth.pdf>.