

What Does GMO Stand For?



GENETICALLY MODIFIED ORGANISM.

A GMO crop is the product of a **precise crop improvement technique** that enables us to take a beneficial trait (like insect resistance or drought tolerance) & transfer it into a crop plant.

GMO also stands for

BENEFITS:

ENVIRONMENT

- 1** GMOs help us preserve the land while doing more with fewer resources (e.g., drought tolerant and fertilizer use efficient products).¹
- 2** GMOs help us reduce food waste (e.g., non-browning GMO apples and GMO potatoes that are less prone to bruising and black spots).^{2,3}



YOU

- 1** **LOWER FOOD COSTS** GMOs help us reduce the cost of food.
- 2** **GROW MORE FOOD, SAFELY & SUSTAINABLY** GMOs have been proven safe⁵, and over the last 25 years, GMOs have allowed farmers to increase crop yields by 22% and reduced the overall environmental impact of pesticides by 17.3%.^{1,6}
- 3** **INCREASED NUTRITIONAL BENEFITS** Scientists are working on biofortified GMO crops to help address nutrition deficiency and food security issues around the world.⁷

GMO stands for food that's **safe to eat** and **sustainable to grow.**

¹ Brookes, G., (2022). GM crops: global socio-economic and environmental impacts 1996-2020. Retrieved from <https://pgeconomics.co.uk/pdf/GlobalImpactBiotechCropsFinalReportOctober2022.pdf>

² Arctic Apple Benefits. Retrieved from <https://www.arcticapples.com/arctic-apples-r/arctic-apples-benefits/>

³ Halterman, D., Guenther, J., Collinge, S. et al. Biotech Potatoes in the 21st Century: 20 Years Since the First Biotech Potato (2016). Retrieved from: <http://link.springer.com/article/10.1007/s12230-015-9485-1>

⁴ Goodwin, B., Marra, M., and Piggott, N. (2016) The cost of a GMO-free market basket of food in the United States. Retrieved from <http://www.agbioforum.org/v19n1/v19n1a03-marra.htm>

⁵ The National Academies of Sciences, Engineering, and Medicine. Genetically Engineered Crops: Experiences and Prospects. (2016) <http://nas-sites.org/ge-crops/>

⁶ Klumper, W. and Qaim, M. A Meta-Analysis of the Impacts of Genetically Modified Crops (2014). Retrieved from <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0111629>

⁷ Gearing, M. (2015). Good as Gold: Can Golden Rice and Other Biofortified Crops Prevent Malnutrition? Retrieved from: <http://sitn.hms.harvard.edu/flash/2015/good-as-gold-can-gold-en-rice-and-other-biofortified-crops-prevent-malnutrition/>