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Let's Talk about GMOs

FOR FITNESS PROFESSIONALS
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What is Genetic Modification?

Genetic modification (or genetic engineering) is when agricultural scientists transfer genetic material (DNA) from one plant into another to promote specific desirable plant characteristics.¹⁻³



Common GMO Crops



- There are 11 commercially available genetically modified crops in the United States, including soybeans, corn (field and sweet), canola, cotton, alfalfa, sugar beets, summer squash, papaya, apples, and potatoes.¹⁻⁴
- 70-80% of all of the foods we consume in the U.S. foods contain ingredients that have been genetically modified.⁵
- Many commercially available products are made from these ingredients.





Non-GMO Labeling⁴



Optional third-party certification

Indicates GMO biotechnology was not used in any of the ingredients used to produce a food product

Benefits of Genetic Modification



More efficient production (for farmers)^{1,6,7}

Increased resiliency

- Modified genes allow crops to better withstand environmental factors like weather, insects, and viruses

Efficient use of resources

- Less pesticides, fertilizer, water, and labor are required for crop survival

Higher yields

- Due to reduced crop loss and/or increased production

translates
to



Improved accessibility & nutrition (for consumers)^{1-3,6,7}

Increased availability & affordability

- Higher, more efficient yields leads to lower cost and improved shelf life

Enhanced nutrition

- Some genetic modifications are focused specifically on improving the nutrition of a crop (example: fortification of “golden rice” with vitamin A to combat deficiencies)



Common Assumptions About GMO Foods





MYTH

GMOs are too new for us to know if they are dangerous

FACTS

GMOs have been around for over 30 years with over 1,700 peer reviewed studies and multiple national and international food safety authorities (including FDA, EPA, USDA, and WHO) ensuring GMOs are as safe for human, plant, and animal health as non-GMO options.^{1,2,4,7,8}





MYTH

We don't need GMOs – there are other ways to feed the world

FACTS

With increases in environmental threats and population growth threatening food supplies, GMOs can provide an efficient and cost-effective way to improve crop yield by stimulating survival and output.^{1,6}



MYTH

**GMOs cause allergies, cancer,
& other health problems**

FACTS

An in-depth analysis performed by 50 scientists from the National Academy of Sciences (NAS) concluded there is no scientific evidence to support claims of a link between GMO crops and any adverse health effects, including risk of allergen responses or cancer.^{4,8}





MYTH

All research on GMOs have been funded by big agriculture (“Big Ag”)

FACTS

Over the past decade, hundreds of independent researchers have published peer-reviewed safety studies and at least a dozen renowned medical and scientific groups worldwide, including the World Health Organization (WHO), have evaluated and confirmed the safety of all GMOs currently approved for use.^{4,7}



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