

What do you want to know about GMOs?



What does genetically modified (GM) really mean?

It means crops are grown with help from science. Just like traditional plant breeders do, scientists can transfer individual specific traits from one plant to another, or remove an existing trait altogether. A benefit of GM growing is that it is more precise.

Thirteen years of testing for GM crops
Before it becomes commercially available, the typical genetically modified crop is subject to an average of 13 years of study, at a cost of \$136M (USD)!

MYTH: GM foods cause allergies, cancer, infertility, ADHD, autism, or any other diseases or conditions.

TRUTH: No person or animal has ever died or been made ill by consuming genetically modified foods. Over one trillion meals containing GM foods have been consumed to date.

GM crops are also safe for the environment:

- Increased yield on less land makes it easier to protect ecosystems
- Fewer pesticide applications
- Reduced tillage means less tractor fuel consumption, emissions, and erosion

Did you know?

The World Health Organization, Health Canada, the U.S. Food and Drug Administration, and dozens of other international health organizations have all concluded that GM crops are as safe as comparable, non-GM foods.

Why do farmers grow genetically modified crops?

- Easier to control diseases, weeds, and pests with less chemical application – a GM seed could have built-in natural weed protection
- Easier to adopt no-till farming, which saves time, equipment usage, and carbon emissions
- Higher quality crops with higher yields which equals more food for all of us and the farmers can keep running their farms

What genetically engineered/ genetically modified crops are currently grown in Canada?

There are four GM crops that are currently grown in Canada: corn, soybean, canola, and sugarbeet.

In the rest of North America, farmers also grow genetically modified cotton, alfalfa, papaya, and squash. Genetically modified potatoes and apples also exist, but they aren't available to consumers yet.

History of genetic modification in crops

10,000
years ago

10,000 years ago
Humans begin crop domestication using selective breeding. •



1700s

1700s
Farmers and scientists begin cross-breeding plants within a species. •



1940s
1950s

1940s and 1950s
Breeders and researchers seek out additional means to introduce genetic variation into the gene pool of plants. •



1980s

1980s
Researchers develop the more precise and controllable methods of genetic engineering to create plants with desirable traits.



Like a banana that resists a terrible disease, thanks to a red pepper gene. •

1990s

1990s
The first GMOs are introduced to the marketplace. •



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