



GMOs in Canada: At a Glance (September 2016)

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It has been twenty years since the first genetically modified (GM, also called genetically engineered) crops were approved in Canada.

What is grown and where:

- Until last year, only four GM crops have been grown **in Canada: corn, canola, soy and white sugar beet** (for sugar processing). GM apples and potatoes can now legally be grown in Canada but the status of their production is unknown.
- **Four GM crops** are 99% of the world's GM acreage: corn, canola, soy, and cotton.
- **86% of the world's GM crops are genetically modified to be herbicide-tolerant.** The other GM traits on the market are insect-resistance and virus resistance along with a small amount of drought-resistant corn.
- **Ten countries grow 98% of all the genetically modified crops in the world.** Most countries are not growing GM crops. Less than 1% of the world's farmers are growing GM crops.

What is new in Canada:

- In March 2016, a **GM potato** was approved. The GM potato is genetically engineered to have less asparagine, an amino acid that oxidizes into acrylamide (a probable carcinogen) at high-temperatures (e.g. frying).
- **GM alfalfa** seeds were sold for the first time in Canada in spring 2016.
- A **GM salmon** (engineered to grow faster) is approved for eating (May 2016) and growing (Nov 2013) in Canada but is not yet being produced. There is a court case in progress, challenging the environmental approval in Canada.
- In March 2015, a **GM non-browning apple** was approved.
- Monsanto's **GM dicamba-tolerant soy** is approved and is set for full commercial launch in Canada in 2017.

What we know:

In 2015, the Canadian Biotechnology Action Network (CBAN) conducted a sweeping investigation of the impacts and risks of GM crops and foods, after 20 years in Canada. Our *GMO Inquiry* www.gmoenquiry.ca documented the following:

- Herbicide sales in Canada have increased by 130% since GM crops have been introduced.
- There are now five glyphosate-resistant weeds in Canada. Such weeds are now leading to more use of older herbicides including 2,4-D and dicamba.
- Use of glyphosate on GM glyphosate-tolerant corn in the US corn-belt has reduced important monarch butterfly habitat, contributing to population crisis.
- There is no evidence that GM traits have increased crop yields.
- The price of GM seeds is higher than non-GM in Canada and around the world.
- Farmers do not have more money in their pocket because of GM crops.
- There is no scientific consensus on the question of GM food safety. The risks from eating GM foods have not been fully investigated: there is not enough science, little independent science, and few long-term tests.

Government policy and regulation:

Safety

- Health Canada does not conduct any of its own testing on GM foods but relies on industry-generated data, except where there is any relevant science that also happens to be in the scientific literature.
- There is no tracing or monitoring (post-market surveillance) of GM foods on the market.

Transparency

- The regulatory processes for approving GMOs are not transparent.
- Farmers and consumers are not consulted before GM crops, animals and foods are introduced onto the market.
- Statistics Canada does not track how much of each GM crop is grown and where, outside of tracking GM corn and soy in Quebec and Ontario
- There is no mandatory labelling of GM foods on the marketplace though 88% of Canadians want mandatory labelling (www.cban.ca/2015poll).

Economic and environmental impacts

- The federal government does not assess the potential economic impacts of introducing new GM crops or animals.
- There is no regulatory process for evaluating the long-term, system-wide environmental and economic impacts of using GM crops in Canada.