

Genetically Modified Foods

- Genetic modification (GM) is also called genetic engineering (GE). The terms can be used interchangeably to describe recombinant DNA technology which is used to move genes from one organism to another. GMO stands for genetically modified organism.
- The first GM crop approved in Canada was GM canola in 1995.
- There are 4 GM crops grown in Canada: canola, corn, soy and white sugarbeet (for sugar processing). Around the world GM cotton is the other major GM crop. There is also a small amount of GM papaya and some GM squash grown in the US. There are no other GM food crops on the market.
- Canada grows 6% of the world's GM crops (the US grows 45%).
- GM foods are not labeled for consumers in Canada or the US but over 40 countries have established mandatory labeling of GM foods.
- Monsanto is the largest seed company in the world and owns approximately 86% of all the GM seeds sown in the world.

GM Controversies

- **Inadequate Regulation:** Canadian regulation has long been criticized as inadequate for assessing the safety of GM crops for the environment and human health.
- **No Independent Safety Testing:** Health Canada is in charge of assessing GM foods for human safety but does not do its own testing. Health Canada relies on data supplied by the corporations asking for approval of their GM products.
- **Corporate Control:** GM plants and animals are owned by corporations via patents - intellectual property rights - over gene sequences. Biotech corporation Monsanto enforces patent protection by suing farmers who they allege save GM seed for use the next year.
- **Contamination:** GM plants cannot be contained or recalled once they are released into the environment. GM plants can become living, self-replicating pollution.
- **Secrecy:** The Canadian government refuses to tell the public when they are considering product approvals and does not label GM foods on the market.

New GM Crops?

GM apples: The small BC company called Okanagan Specialty Fruits has licensed a technology for GM "non-browning" apples from Australian researchers and has asked for approval in the US. Health Canada refuses to say if they are already considering approval of this GM apple.

GM alfalfa: Farmers do not need or want GM alfalfa and have been trying to stop its introduction at least five years. The release of Monsanto's GM herbicide tolerant (Roundup Ready) alfalfa is a threat to many different types of farmers and farming systems, both conventional and organic. Alfalfa is high protein feed (hay) for dairy cows and livestock and is used as a soil builder by other farmers. GM contamination is inevitable because alfalfa is a perennial crop, pollinated by bees. GM alfalfa was approved in Canada in 2005 but needs to go through one more step before it can be legally sold as seed. It was approved for planting in the US in January 2010.

GM wheat: In 2004 Monsanto withdrew its applications for approval of GM herbicide tolerant wheat in Canada and the US after years of strong protest from farmers and consumers. There is no GM wheat grown anywhere in the world but Monsanto has re-launched its GM wheat research and pledges to introduce a new GM wheat in the next 5-10 years. Industry efforts to promote consumer and farmer acceptance of GM wheat are currently in high gear.

GM Animals?

- There are no **GM food animals** approved anywhere in the world but a GM Atlantic salmon and a GM pig are vying to be the first.
- The US government is close to approving a fast-growing **GM Atlantic salmon** developed by small US company Aquabounty. Canadian regulatory agencies are refusing to say if they are also looking at an application to approve the GM salmon.
- The University of Guelph in Ontario has asked the Canadian and US governments to approve a **GM pig** engineered to excrete less phosphorous in its feces.

For more information please refer to www.cban.ca or contact Lucy Sharratt Coordinator, Canadian Biotechnology Action Network 613 241 2267 ext 25 and (as of Sept 16) cell: 613 263 9511 coordinator@cban.ca

| GM CROPS GROWN IN CANADA | | |
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| CROP | TRAIT | WHERE ON THE SHELVES |
| 1. Corn | Insect resistant, herbicide tolerant | Corn flakes • Corn chips • Cornstarch • Corn syrup • Corn oil and other corn ingredients in processed foods • Sweeteners like glucose and fructose • Eggs, milk and meat • Some sweetcorn |
| 2. Canola | Herbicide tolerant | Canola oil • Eggs, milk and meat |
| 3. Soy | Herbicide tolerant | Soy oil • Soy protein • Soy lecithin • Tofu • Soy beverages • Soy puddings • Eggs, milk and meat |
| 4. Sugar beet | Herbicide tolerant | Sugar <i>Check www.cban.ca/gmfoods for updates</i> |
| GM FOODS IMPORTED TO CANADA | | |
| FOOD | GROWN | WHERE ON THE SHELVES |
| 5. Cottonseed oil | U.S. | Cottonseed oil • Vegetable oil in processed foods such as potato chips |
| 6. Papaya | U.S. (Hawaii) | Papaya in fruit juices and other processed foods |
| 7. Squash | U.S. | Some zucchini • Yellow crookneck and straightneck squash |
| 8. Milk products (Bovine Growth Hormone) | U.S. | Milk solids and powder • Frozen desserts with dairy • Imported mixed drinks with milk ingredients <i>Check www.cban.ca/gmfoods for updates</i> |