

Genetically Modified (GM) Sweet Corn

What is Genetic Modification?

Genetic modification (GM) is recombinant DNA technology, also called genetic engineering or GE. With genetic engineering scientists can change plants or animals at the molecular level by inserting genes or DNA segments from other organisms. Unlike conventional breeding and hybridization, the process of genetic engineering enables the direct transfer of genes between different species or kingdoms that would not breed in nature.



GM sweet corn

Genetically modified sweet corn is being sold in some grocery stores, roadside stands and farmers markets across Canada.

GM foods are not labeled, and there are no public statistics to tell us how much GM sweet corn is being grown in Canada.

Any colour sweet corn could be GM: There are some GM varieties of yellow, white and two-colour (bicolour) sweet corn on the market.

The GM sweet corn on the market is genetically modified to be toxic to insects (insect resistant) or to be tolerant to brand name herbicides (herbicide tolerant). Most GM sweet corn has both of these GM traits together.

Certified organic sweet corn is non-GM. Organic farming prohibits the use of GM seeds and synthetic pesticides.

Monsanto's GM sweet corn

Monsanto sells what it calls "Seminis Performance Series" sweet corn (Seminis is the name of the vegetable-seed company that Monsanto now owns).

Monsanto has put GM traits into three varieties (hybrids) of sweet corn, and now markets GM versions of "Obsession" "Passion" and "Temptation" sweet corn varieties. The GM versions are called "Obsession II", "Passion II" and "Temptation II".

Monsanto's GM sweet corn is insect resistant – it produces three different (Bt) toxins to kill a wide range of insects – and it is also herbicide tolerant "Roundup Ready", to survive sprayings of the company's glyphosate "Roundup" herbicide.

Who is Monsanto? Monsanto is the largest seed company in the world, and the fifth largest agrochemical company. Monsanto sells the world's biggest selling herbicide, "Roundup." In 2012, Monsanto started selling GM sweet corn, through the vegetable seed company Seminis, which it bought in 2005.

Syngenta's GM sweet corn

The company Syngenta sells "Attribute" sweet corn varieties that are insect resistant, and "Attribute II" sweet corn varieties that are both insect resistant and tolerant to Bayer's Liberty glufosinate herbicide.

Who is Syngenta? Syngenta (Switzerland) is the world's largest agrochemical company, and the third largest seed company in the world after Monsanto and Dupont-Pioneer. Bayer CropScience owns the herbicide "Liberty", which is twinned with Syngenta's "LibertyLink" GM sweet corn seed.

Take Action

1. Ask your farmer at the roadside, farm gate, or farmers' market if they are selling GM sweet corn. You can even ask the Farmers' Market to check for you.
2. Write to the head office of your grocery store and ask them to remove GM sweet corn from their store. Tell them you don't want to buy it.
3. Buy organic sweet corn – organic farming prohibits GM seeds and synthetic pesticides.

Questions to ask your farmer:

Farmers may not be aware that they have bought GM sweet corn – seed catalogues do not always advertise seeds as "genetically modified".

You can use some of these questions to have a discussion with your farmer:

- Is your sweet corn genetically modified (also called genetically engineered)?
- Is it "insect protected"? (This is how insect resistant GM corn is described in seed catalogues)
- Is it herbicide tolerant? Did you use Roundup or Liberty on your corn? Is it called "LibertyLink" or "Roundup Ready"?
- What is the name of the variety of sweet corn you planted?
- What company makes this sweet corn?
- What company or seed dealer did you buy from?

Please share your results. If you get partial information from your farmer, or grocery store, and would like to check it or discuss it **please contact:**

coordinator@cban.ca or call CBAN's Coordinator Lucy Sharratt 613 241 2267 ext 25.

For more information: www.cban.ca/corn

Your actions as consumers are very influential.

Talk to your local farmer. Write to your grocery store.

