

How will companies enforce patents over garden seeds?

It is not known how companies will enforce their intellectual property rights over GM garden seeds. For example, the genetically modified Purple Tomato™ is patented but the company Norfolk Healthy Produce says people can freely save the seeds from the GM fruit, and replant and share them, as long as they do not sell the fruit, seeds or plants. The company says, "Growers can save the seeds and enjoy the plants and fruits in your home garden and with your local community" (www.norfolkhealthyproduce.com/pages/faqs).

How would GM garden seeds threaten our seed system?

If genetically modified garden seeds are sold, there is a high likelihood they will contaminate seed stocks and end up, unwanted, in gardens and on farms across Canada. This can happen through cross-pollination or through the almost inevitable mixing and escape of the seeds from gardens and fields. There will be few ways to know if this GM contamination has occurred, and it will be difficult or impossible to reverse.

TAKE ACTION

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For more information on these and other GM products see our report at cban.ca/GMFoods2025



GM Foods on the Market in Canada

GM Food in Canada	Where	What
1. CORN	In processed food and animal feed, and a very small amount of GM sweet corn	Herbicide-tolerant & insect-resistant
2. CANOLA	As oil in processed food and animal feed	Herbicide-tolerant
3. SOY	In processed food (not in tofu or soy milks)	Herbicide-tolerant
4. ALFALFA	Animal feed only	Herbicide-tolerant & low-lignin
5. SUGARBEET (white)	Processed into sugar	Herbicide-tolerant
6. PAPAYA	Imported from the US	Virus-resistant
7. PINEAPPLE	Whole pineapple, in a few grocery stores	Pink coloured flesh

cban.ca/gmfoods

The Canadian Biotechnology Action Network (CBAN) brings together 14 groups to research, monitor and raise awareness about issues relating to genetic engineering in food and farming. CBAN members include farmer associations, environmental and social justice organizations, and regional coalitions of grassroots groups. CBAN is a project on the shared platform of MakeWay Charitable Society.



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PROTECT OUR SEEDS FROM NEW GMOS

A new threat to organic farmers and seed savers is looming: Genetically modified (GM or genetically engineered) fruit and vegetable seeds could soon be marketed to small growers and home gardeners in Canada.

What's new

With the **new genetic engineering techniques of gene editing**, such as CRISPR, companies are developing GM fruit and vegetable varieties **specifically for small growers and home gardeners**.

The Canadian government has removed pre-market regulation for most GM gene-edited plants and foods. This means that most gene-edited seeds can now be released without any government environmental or food safety assessments and without notifying either the government or the public. Unlike earlier genetically modified organisms (GMOs), these GM gene-edited seeds will not require government approval, and there is **no mandatory requirement that companies list or label these unregulated GM gene-edited seeds for farmers**.

This could lead to the release of **unidentified, unregulated GM seeds**.

Companies are testing consumer and farmer acceptance to launch GM gene-edited fruit and vegetable seeds and foods. Two biotechnology companies have already started selling a limited amount of GM garden seeds in the US.

What's at risk

- Organic and other non-GMO seed
- The tradition of seed saving
- Preservation of heritage seeds
- Trust in our seeds
- Some export markets

The sale of GM garden seeds constitutes a direct attack on organic food and farming, and a threat to Canada's seed supply. If genetically modified garden seeds are sold, there is a high likelihood they will contaminate seed stocks and end up, unwanted, in gardens and on farms across Canada.

GENE EDITING TECHNIQUES are new ways to genetically engineer plants and animals to express new traits. These techniques, such as CRISPR, aim to delete DNA segments or otherwise change a DNA sequence. Unlike traditional plant and animal breeding, genetic engineering makes changes directly to the genetic make-up of organisms in the laboratory.

GM Garden Seeds Threaten to Come to Canada

If farmers and consumers do not take action now, there are a number of genetically modified fruits and vegetables that could soon be released into our food system and seed supply.

There are four GM products that are **not yet on the market in Canada** but are at immediate risk of being introduced.

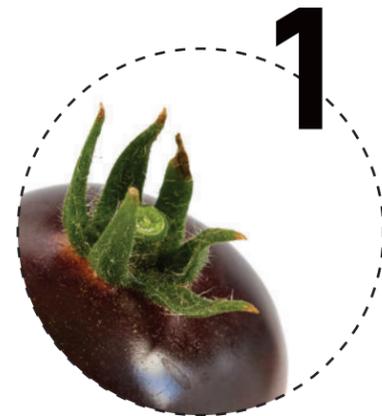
GM purple tomato seeds

The company Norfolk Healthy Produce sold some of its genetically modified Purple Tomato™ seeds in packets for small growers in the US in 2024 and 2025. It sells the GM seeds directly from its website and at a few small garden centers in the US.

The company wants approval to sell its GM tomatoes and seeds in Canada, in partnership with the greenhouse company Red Sun Farms headquartered in Kingsville, Ontario.

This GM tomato was genetically modified by introducing genes from snapdragon flowers, to increase anthocyanin production. **Unlike the new gene-edited GMOs, this product requires government approval and will be listed by the government.**

cban.ca/tomatoes



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GM gene-edited mustard green seeds*

Bayer has genetically modified mustard greens (*Brassica juncea*) using CRISPR to taste less "mustardy." Bayer wants to sell the GM gene-edited seeds to market gardeners and home gardeners. Bayer was seeking a major home garden supplier to sell the seeds in 2025 but has since delayed their plans.

Bayer is the biggest seed company in the world and, after buying Monsanto in 2018, Bayer also owns the fruit and vegetable seed company Seminis. Bayer wants to break open the market for GM gene-edited fruits and vegetables.

cban.ca/NoGMOsalad



GM gene-edited romaine lettuce seeds*

The small US biotechnology company GreenVenus sold a limited amount of GM gene-edited, non-browning romaine lettuce seeds on its website in 2025 in small packets for gardeners in the US. The sales website was taken offline in August.

GreenVenus is owned by the venture capital firm Third Security which also owns the GM apple company Okanagan Specialty Fruits and the GM mosquito company Oxitec, and it was a majority shareholder in the now-defunct GM salmon company AquaBounty.

cban.ca/NoGMOsalad



First gene-edited fruit coming to Canada?

GM gene-edited strawberries*

The large US-based agriculture company Simplot wants to commercialize one or more GM gene-edited strawberries in the US and Canada.

These GM gene-edited strawberries do not appear to be on the market yet. Their market status is unclear because Simplot will not respond to requests for information, the gene-edited strawberries will not trigger government regulation in Canada, and there is no mandatory transparency.

In 2021, Simplot announced it would use gene editing to develop GM strawberries with extended shelf-life. In December 2024, the company stated its intention to sell another GM strawberry as soon as 2025, gene-edited to be everbearing (remontant) i.e. to have a longer harvest season.

Take action at cban.ca/strawberry



 * These gene-edited seeds and foods will not be assessed for safety by the Canadian Food Inspection Agency or Health Canada.