

# Gene Edited Foods

## Government oversight needed for safety and transparency

Some genetically modified organisms (GMOs) produced through techniques of genome editing (gene editing) can enter the market without being assessed for safety by government regulators. They can also enter the market without any notification to the federal government or public.

---

### Summary:

There is no pre-market regulation for most gene-edited seeds as well as the foods derived from these genetically engineered (genetically modified or GM) plants. This means that some of these new genetically modified organisms (GMOs) can enter the market without being assessed for safety by government regulators. Instead, product developers can assess the food and environmental safety of their own gene-edited GMOs without government oversight, and without providing any notification to the government or public about market release. This regulatory exclusion of many gene-edited products enhances safety concerns and comes at the expense of transparency for Canadian farmers and consumers.

---

### Background:

In 2022 and 2023, Health Canada and the Canadian Food Inspection Agency (CFIA) updated regulatory guidance on genetically engineered foods and seeds. The new guidance **exempts plants from regulation if they have no foreign DNA**. This exemption will apply to most but not all, GMOs created with the new genetic engineering techniques of genome editing, also called gene editing. Plants that have no foreign DNA and the foods from those plants do not trigger the Novel Food Regulations or Part V of the Seeds Regulations:

- Most gene-edited plants, and the foods from those plants, are exempt from pre-market regulation such that there are **no government safety assessments** for human consumption or for environmental release. The federal government has handed safety assessments for these plants and foods over to product developers, with **no government oversight**.
- The federal government is **not requiring product developers to notify the government** when these unregulated gene-edited foods and seeds are released onto the market:
  - Health Canada encourages product developers to **voluntarily disclose** pending market release of unregulated ("non-novel") gene-edited foods by providing information to Health Canada for posting on the ["List of non-novel products of plant breeding for food use."](#) The information on this list is not independently verified and may be impossible to verify.

- The CFIA encourages companies to **voluntarily disclose** when a gene-edited seed is introduced onto the market, for listing on the website of the industry association Seeds Canada. The information on this list is not independently verified and may be impossible to verify.

---

## Actions Needed:

1. Health Canada and the CFIA should **assess the safety** of all genetically engineered foods and plants, including all gene-edited products, i.e. regulatory guidance should be updated to ensure that the use of genetic engineering techniques, including those of gene editing, triggers pre-market regulation of foods and seeds.
2. Health Canada and the CFIA should **urgently establish mandatory registration** of all genetically engineered products on the market to provide transparency to the public, farmers and food industry, and to provide the federal government with the ability to track and trace all GMOs, i.e. Health Canada and the CFIA should require companies to notify the government of all genetically engineered foods and seeds entering the market, including all gene-edited products.

---

## Rationale:

### 1. Safety needs to be assessed by independent regulators

The regulatory exemptions for many gene-edited products do not reflect the scientific findings that show that genome editing is not equivalent to traditional plant breeding and can result in a range of **possible unintended effects**. These unintended effects need to be detected and evaluated for their potential impacts on food and environmental safety. Narrowly focussing on the presence of foreign DNA as a trigger for government safety assessments is simplistic and overlooks many possible safety issues that could result from unexpected effects caused by the process of genome editing. For example, unexpected effects could result in alterations to biochemical pathways or protein composition, which could have implications for food and environmental safety. The regulatory exemptions are not science-based or future-proof. Instead, they assume the safety of GMOs that have no foreign DNA, including those produced by future genome editing processes that have yet to be developed.

### 2. Mandatory notification is required to provide transparency in the market

Gene-edited plants that do not trigger regulation can be released onto the market **without any notification to the government and public**. Instead, Health Canada and the CFIA are encouraging companies to voluntarily disclose their unregulated GMOs. Negative impacts of this lack of mandatory disclosure include:

- **Federal government:** The federal government will not know which GMOs could be in our food system or environment. Without the ability to track and trace GMOs, informed policy making and the ability to respond to any possible safety, environmental, or economic impacts is severely hampered.
- **Farmers:** Farmers may not be informed that the seeds they are buying are gene-edited.
- **Food Businesses:** The logistics of providing non-GMO choices in the market will become more complex and costly. Many farmers and companies have invested in certification that provides non-GM food choices in the Canadian market. This includes investments in Non-GMO Project verification and/or organic certification in compliance with the Canadian Organic Standards that prohibits all GMOs including gene-edited products.

- **Consumers:** Consumers will have no information about which GMOs could be on the market. For over twenty years, a vast majority of Canadians have demanded mandatory labelling of GM foods because they want to know which foods are genetically engineered (cban.ca/labelling polls). In the absence of labelling, Canadians have been referring to the departmental listings of approved GMOs, but new regulatory guidance means that many new GMOs on the market will not appear on these lists of approved/novel foods.

As far as we can determine, **there are no gene-edited foods on the market in Canada yet**. However, there is a limited window of time to ensure safety, trust, and choice in the food system before a flood of unregulated, unidentified gene-edited foods enter the Canadian food system.

**CBAN Report:** Genome Editing in Food and Farming: Risks and Unexpected Consequences, June 2020 [www.cban.ca/GenomeEditingReport2020](http://www.cban.ca/GenomeEditingReport2020)

**Contact:** Lucy Sharratt [coordinator@cban.ca](mailto:coordinator@cban.ca) 902 209 4906



**The Canadian Biotechnology Action Network (CBAN)** brings together 15 groups across Canada to research, monitor and raise awareness about issues relating to genetic engineering in food and farming. CBAN is a project on the shared platform of MakeWay Charitable Society.

[www.cban.ca/noexemptions](http://www.cban.ca/noexemptions)