

# GM Contamination in Canada

## The failure to contain living modified organisms – Incidents and impacts

Once released into our environment, genetically modified organisms (GMOs) can be difficult or impossible to control or recall. Human error, biology, pollinator and wind movement, extreme weather events, and other factors make GM contamination predictable.

**GM contamination is the unwanted escape and spread of GMOs or genetic material from GMOs to non-GM plants, animals and foods. This dispersal can occur in a number of ways, including pollen spread, seed escape, and mixing of food and feed. GM contamination is living pollution that can self-replicate.**

Such contamination can have negative environmental, social and economic impacts. So far, farmers have been the first to pay the price of GM contamination.

The diverse incidents of GM escape and contamination in Canada show that the risks cannot be managed by current government regulation nor through industry-developed best practices.

The federal government's GMO review process does not assess the full risk of contamination occurring, nor the potential economic harm if such contamination occurs. Farmers are not consulted before new GM crops are approved, and the economic risks are not assessed.

### INCIDENTS

**There have been escape incidents in Canada with GM canola, flax, wheat and pigs.**



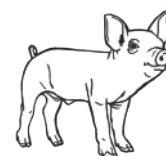
CANOLA



FLAX



WHEAT



PIGS

- Some escape events occurred with approved GMOs (canola and flax), and others with experimental GM plants and animals (wheat and pigs).
- Some were isolated incidents (wheat and pigs), while others are widespread or ongoing contamination cases (canola and flax).

**Canadian farmers grow GM canola, corn, soy and white sugarbeet, as well as a small amount of GM alfalfa in the Eastern provinces.** The Minister of Environment and Climate Change may soon approve the production of GM salmon.

## IMPACTS

The economic consequences of GM contamination in Canada have included the temporary or permanent loss of export markets, lower crop prices in the short or long-term, the loss of access to grow a particular crop, and the loss of some farm-saved seed.

- Widespread **GM canola** contamination in Canada has meant that most organic farmers have lost the option of growing canola.
- **GM flax** contamination temporarily shut down export markets and lowered crop prices. It shifted Canada's market for conventional flax to a lower priced one.
- The discovery of a few **GM wheat** plants temporarily shut two export markets to Canadian wheat.
- **GM alfalfa** commercialization in Canada poses an immediate contamination threat to organic farming systems and other farm operations.

There are new and proposed GMOs that pose significant risks of escape and/or serious consequences if escape occurs. Furthermore, some proposed GMOs such as gene-drive mosquitoes and GM American chestnut trees, are specifically designed to be released into the wild, to deliberately cross with wild populations.

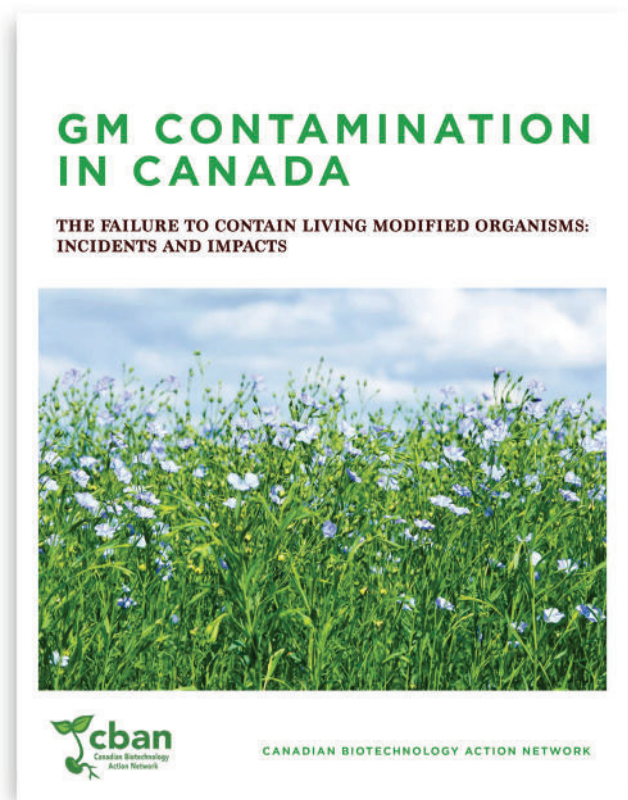
## PREVENTING CONTAMINATION

**The only way to prevent contamination from certain GMOs is to stop their release.**

Three actions can help prevent future GM contamination:

1. Deregister GM alfalfa
2. Halt field trials of GM wheat
3. Assess the potential economic impacts of GMOs before they are released

## MORE INFORMATION



NEW REPORT: *GM Contamination in Canada: The failure to contain living modified organisms – Incidents and impacts*

Available online at  
[www.cban.ca/ContaminationReport2019](http://www.cban.ca/ContaminationReport2019)

For updates and to find out more, visit  
[www.cban.ca/contamination](http://www.cban.ca/contamination)

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