



## Health Canada Wants to Increase Glyphosate in Food *Have your say by July 20th!*

### Issue

The Pest Management Regulatory Agency (PMRA) is [proposing](#) to increase the amount of glyphosate (e.g., Roundup®) permitted in Canadian food. Maximum Residue Limits (MRLs) may be doubled, tripled or almost quadrupled for oats and bran, lentils, peas and 25 types of beans such as chickpeas, kidney beans and pinto beans, as well as nuts (almonds, pecans and walnuts, mostly coming from the US).

Crop	Current MRL (ppm)	Proposed MRL (ppm)	Proposed Increase
Oats and bran	15	35	2.3 fold
Lentils	4	10	2.5 fold
Peas	5	10	2.0 fold
Beans	4	15	3.75 fold
Nuts	0.4 ppm	1	2.5 fold

Why? Farmers are using more glyphosate-based herbicides (GBHs). This amounts to regulation of the status quo.

Why should the organic industry care? Organic prohibits the use of glyphosate yet it is persistent in the air due to non-organic farmers prolific use of glyphosate in North America. Unintentional contamination is becoming more and more problematic and is addressed under the following [protocol](#) to acknowledge that contamination is possible. As the testing protocol for organic products is based on 5% of the MRL, the proposed increase to the national MRLs for the above products means that organic products will have an increased allowance of glyphosate permitted. This is a move in the wrong direction allowing more contamination in organic products and allowing more prolific use of glyphosate into our food supply as well as affecting soil health and pollinators.

As weeds become resistant, higher herbicide doses affect the environment, contaminate our food and risk our health. This model threatens Organic Agriculture, and does not optimize carbon capture in soil, support biodiversity, nor build resilience to face the climate crisis.

## Whose food will be most affected?

Canadian children. Glyphosate in childrens' cereals (in oats and bran) are [already at alarming levels](#).

Organic consumers who are purchasing organic for the purpose of avoiding pesticides for health or ethical reasons.

Vegetarians, vegans and everyone who gains protein from “conventionally” grown legumes and nuts are at risk of consuming more glyphosate.

## Health risks were not evaluated

PMRA provided no health-based justification to increase herbicide contamination. indeed, health effects were not examined. The [Proposal](#) and related [Evaluation Report obtained from the PMRA](#) aim to adjust the regulation to suit increased use of GBHs.

Increased legume contamination was based on data presented at a May 2019 Joint Food and Agriculture Organization / World Health Organization (FAO/WHO) [meeting](#). PMRA provided no scientific information on oats and bran. A dietary risk assessment was referenced, based on a 2005--2010 US survey, “[What We Eat in America](#).”

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## HAVE YOUR SAY, BY TUESDAY JULY 20<sup>th</sup>

Tell the PMRA what you think of PMRL2021-10.

Email your comments to [hc.pmra.publications-arla.sc@canada.ca](mailto:hc.pmra.publications-arla.sc@canada.ca), or [comment](#) online, on “Proposed measures” for [PMRL2021-10](#).

Please consider sharing your input: [info@canada-organic.ca](mailto:info@canada-organic.ca) and [Info@PreventCancerNow.ca](mailto:Info@PreventCancerNow.ca) and [SafeFoodMatters@gmail.com](mailto:SafeFoodMatters@gmail.com)

Comments should have a scientific basis and reference the content of [PMRL2021-10](#).

*To get you started, here are some of our concerns.*

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## Concerns

**1. [Glyphosate is already ubiquitous](#) in agricultural regions. Higher MRLs will increase contamination on and beyond farms, and will put even more glyphosate into our food.**

Glyphosate is in the soil, air and waterways, drifting in dust and falling in the rain in North America. When crops are killed and dried rapidly before harvest (dessication), glyphosate moves into the bean or seed.

## 2. Glyphosate is a potent chemical – a herbicide, an antibiotic and a chelator – affecting human and environmental health.

- As an **antibiotic in animals (including humans, other mammals and insects)** glyphosate kills bacteria and [depletes beneficial species in the human gut microbiome](#). Glyphosate caused “anal staining” according to industry-supplied rodent test data held by the PMRA, but the PMRA did not find this hallmark of dysbiosis to be “adverse.” Trends of related health effects mirror increasing glyphosate in food.
  - Dysbiosis may escalate to inflammatory bowel disease ([IBD is increasing at 6% per year in young children in Canada](#)). Increasing chronic inflammation with dysbiosis is reflected in similar rates of [increasing colorectal cancer in our younger adults](#).
  - The International Agency for Research on Cancer (IARC) found that [glyphosate is a probable human carcinogen](#). Now [cancer lawsuits are costing Bayer billions of US dollars](#), following three successful prosecutions involving non-Hodgkin lymphoma. Awards were augmented because Monsanto acted with malice, oppression, or fraud in suppressing and contesting the science, influencing regulators..
  - GBHs perturb the [balance of microbes in the bee gut](#), potentially exacerbating pollinator decline. Pollinators are essential for legume production.
- As an **antibiotic in the soil**, GBHs cause shifts in the soil microbiome, with increased fungi and [mycotoxins](#), including *Fusarium spp* (e.g., infecting [wheat](#)). This contamination can make crops unsalable. [Mycotoxins](#) pose many risks to human and animal health, affecting the immune system, nervous system, liver and child development, and causing cancers.
- As a **chelator**, glyphosate binds with and may mobilize metals in soil. Toxic metals such as cadmium (which is naturally high in many Prairie soils and Canadian potash fertilizer) is hyper-accumulated in grains and can exceed international MRLs ([cadmium is not listed](#) among Canada’s maximum levels for chemical contaminants in food). Cadmium, a known [carcinogen](#), accumulates in bone and can disable essential enzymes, causing widespread disruption of the functioning of the body’s systems, damaging kidneys, impairing child development, promoting chronic disease and causing cancers.

## 3. Increased use of GBHs will further impact Canadian Organic Agriculture.

Organic commodities are already challenged by glyphosate contamination from drift, dust, possible contamination during shipping / handling and other consequences of ubiquitous environmental contamination from non-organic agriculture [[2014, COTA Glyphosate Residue report](#)].

**This threat to Canadian Organic Agriculture is being averted in ways that leave behind protection of food safety.** “Organic” now means that farmers follow prescribed on-farm practices but recognizes that organic food cannot mean “pesticide-free” because of contamination from off-farm sources. The scale of GBH use and associated off-target contamination results in organic commodities losing markets, particularly in the EU and Asia where the MRLs for organic foods are much lower or zero-tolerance.

GBHs are no longer labelled to permit pre-harvest application intended to rapidly kill and dry grains, beans and seeds, because glyphosate accumulates in immature seeds. Nevertheless, such desiccation still occurs because the labels allow GBHs to be used pre-harvest to kill unwanted plants after seeds are sufficiently hardened. Moreover, glyphosate accumulation is inevitable in indeterminate cultivars such as some legumes (like chickpeas and lentils) that continue to grow and develop seeds.

#### 4. GBHs are not a sustainable solution to the climate emergency.

No-till agriculture, that is reliant on GBHs, is being advanced as a solution to the climate crisis under the term “Regenerative Agriculture.” The buzz word “regenerative” lacks definition but is perceived to be synonymous with protecting soil health. The much-emphasized no-till agriculture depends on substantial use of GBHs to reduce weeds, and results in only short-term, shallow carbon sequestration. When measuring carbon capture, soils must be tested at a depth of at least one metre, as it is known that carbon in the upper 10 to 20 centimeters can come and go. Longer-term storage, that happens at greater depths, is only possible using [Organic Regenerative Techniques](#) of farming that protect soil health at every soil depth.

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**For more information:**

Tia Loftsgard, [tloftsgard@canada-organic.ca](mailto:tloftsgard@canada-organic.ca)

613-482-1717 ext. 200