

September 8, 2023

Sent via email to pmra.regulatory.affairs-affaires.reglementaires.arla@hc-sc.gc.ca

**Re: NOI2023-01 Consultation on strengthening
the regulation of pest control products in Canada**

Thank you for the opportunity to contribute to strengthening approaches to pest control in Canada, with a focus on assessment and regulation of pest control products. Prevent Cancer Now (PCN) has a long history of involvement with pest control broadly, including pesticides, and was an active participant during the “Transformation” consultations.

PCN is a volunteer organization including scientists and doctors, who are dedicated to primary cancer prevention. We see very disturbing trends of rapidly increasing rates of cancers in younger Canadians, in particular of the digestive system, and hormone-sensitive tissues. Pesticides are plausibly substantial contributors to these cancers, and in this public health emergency we need strong measures to advance least-toxic pest control *methods and strategies* as well as improve decisions for products.

We contributed to and strongly support the [Joint Submission](#) by Ecojustice lawyer, Laura Bowman on behalf of PCN and other non-governmental organizations. These notes are supplementary to and in no way detract from the joint submission. Here we provide additional information and views based on our experiences, relevant to the four points raised in NOI2023-01.

1. Facilitate access to [confidential test data] CTD, including for research and re-analysis purposes;

We heartily support improved, meaningful access to data the PMRA considers during assessments. I have been engaged with the PMRA “Reading Room” to examine confidential test data from initial trialling in the mid 2000s, and accessed this resource most recently regarding the new herbicide tiafenacil. Pandemic-inspired innovations for remote viewing improved convenience by eliminating travel to Ottawa. Important improvements remain to be implemented, and key limitations came into focus when important data for a new herbicide, tiafenacil was presented in numerous mostly-unlabelled spreadsheet images, that could only be viewed one at a time. Scientific inspection of this data was not feasible, but the PMRA refused to provide a working spreadsheet and even forbade transcribing of this large dataset. This mockup of what was provided illustrates how it would be impossible to “inspect” this large, important dataset in a scientifically meaningful way. *The present situation is contrary to federal “open science” policies.*

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Meaningful inspection requires provision of spreadsheets that scientists may re-analyse using their own tools. This is further discussed in the [Joint Submission](#).

Related to CTD, a major gap in transparency first highlighted during preliminary “test driving” of the Reading Room, is that the public needs to know how the PMRA considered this data. Despite improvements in decision proposal documents, a major missing link in transparency is access to data evaluation reports referencing (not necessarily reproducing) CTD, as well as data from other sources.

The CTD provided by registrants is a single evidence stream. The PMRA should be requesting and using data from international regulators, and from authors of published research. For example, various international regulators relied on different subsets of glyphosate carcinogenicity animal test data and concluded that glyphosate does not cause cancer;¹ however, expert collation and analysis found that in sum, glyphosate is a carcinogen according to the totality of the animal studies.

An important analytical gap is how the PMRA evaluates (or not) the totality of the evidence, including CTD and the open scientific literature. Establishment of a publicly viewable annotated literature database such as academics develop and share as public resources for example on Zotero.org, could streamline PMRA processes, provide transparency, and perhaps even invite assistance from the scientific community accessing such information. A comprehensive database is necessary for the systematic review. Scientific standards require, for example, evidence of a comprehensive search and reasons for exclusion of studies and data from analyses.

2. Increase transparency for [maximum residue limits] MRL applications for imported food products

It is easy to misunderstand what is being proposed here. We in no way object to increased transparency or “early warning” of an upcoming consultation. We object, however, to blanket application of higher MRLs when they are ostensibly not needed in Canada. This proposal addresses the original event that triggered objections in 2021 – increasing MRLs for glyphosate in some major commodity crops. MRLs are set to prevent over-exposure, and they ultimately relate to both public and environmental health.

The PMRA holds that Canadian farmers follow pesticide labels, and in so doing their crops will not exceed Canadian MRLs, no matter how high they are set. Unfortunately, foreign agricultural practices may result in higher levels of pesticide residues, but if Canadians need access to this food then standards might be relaxed for food imported goods.

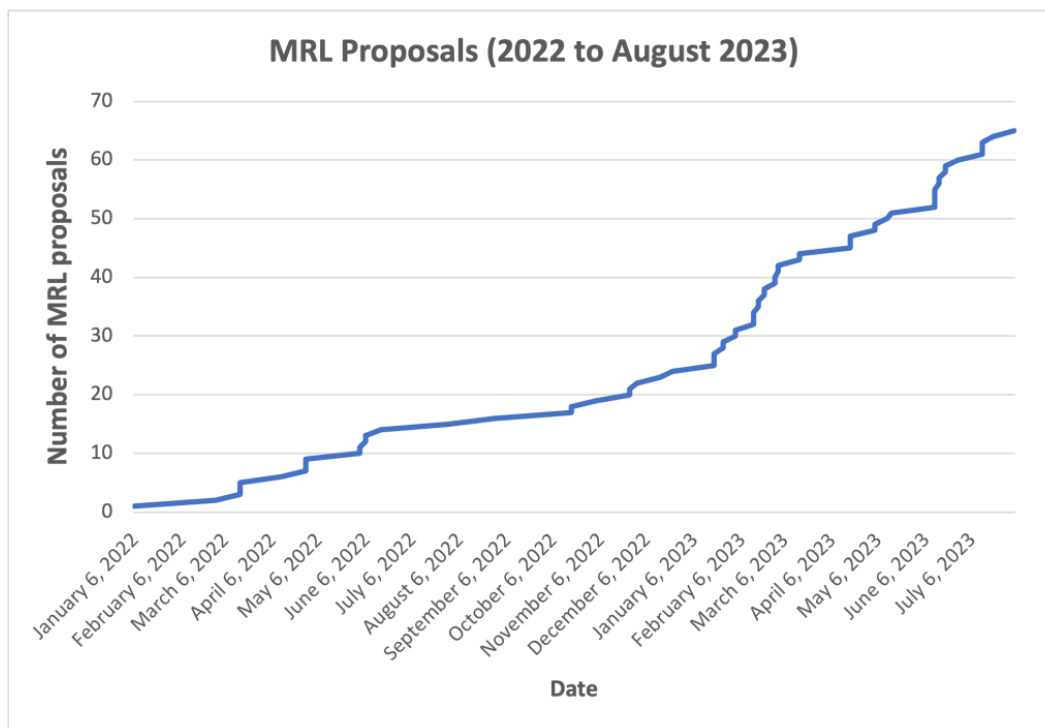
We strongly believe that *if* a higher MRL is needed, *possibly temporarily, to ensure food security*, a different MRL *only for imports* could be a solution. Increasing domestic MRLs encourages additional use of pesticides (e.g., higher application rates or an additional application). As well, while higher MRLs on imported commodities change risks posed to human health, the additional burdens of environmental harms are borne by other jurisdictions.

After a brief lull in 2021 there has been considerable work on MRLs, with the number of consultations accelerating in 2023. Most (albeit not all) of these appear to be increases or for new pesticides – this is a signal that we are not on track to halve pesticides risks by 2030 to protect biodiversity. It is not lost on

¹ Portier, C. (2020) A comprehensive analysis of the animal carcinogenicity data for glyphosate from chronic exposure rodent carcinogenicity studies. Environmental Health. <https://doi.org/10.1186/s12940-020-00574-1>

anyone that increasing Canadian MRLs, and facilitating higher pesticide use in other countries, is counter to Canada's and the world's commitments to biodiversity made at COP-15.

More than 40 MRL proposals have been posted in 2023—about twice as many as all of 2022, according to the [PMRA consultation database](#). These are graphed below.



- 3. Give the Minister the explicit authority to require the submission of available information on cumulative environmental effects and require the Minister to consider cumulative effects on the environment during risk assessments where information and methodology are available**
AND
- 4. Strengthen consideration of species at risk in risk assessments by giving the Minister the explicit authority to require submission of available information on species at risk**

These matters are extensively discussed in the [Joint Submission](#). Listed together, it is immediately clear that obligations are necessary to include and to consider information on the environment *and* species at risk. *Cumulative* environmental effects and harms to species at risk must be interpreted in the broadest manner. Authority must not be restricted and possibly negated with caveats re. availability of information and methods. Canadians expect their government to carry out research and to develop methods – not to wait placidly for data and methodologies to come their way.

Further to discussions in the [Joint Submission](#), lack of imaginative investigation has meant that the PMRA has facilitated unintended consequences. We offer an example in support of the need for much broader and imaginative investigations of interactive harms potentially precipitated by under-informed use of potent biologically active chemicals across landscapes.

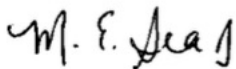
An important example has come to our attention that pertains to the grasshopper plagues seen in the prairies in 2023.

Glyphosate is known to alter animal and soil microbiomes,² and consequences may range from cancers in humans to higher infections such as *Fusarium* contamination of crops.³ There are *many* important microbes in the soil. Canadian research from the 1960s highlights the importance of fungal infections in grasshopper control,⁴ and according to research from Monsanto, Roundup is known to kill these fungi.⁵ Although there has been no recognition that pesticides may contribute indirectly to grasshopper plagues, the Canadian government has announced that it is developing this organism as a biocontrol,⁶ but unfortunately progress is slow. We sincerely hope that this and similar efforts will be supported financially and logistically by the PMRA and others in positions to do so, with necessary expertise to take ecologically based and biocontrol pest management to fruition.

In conclusion, thank you for the opportunity to comment on NOI2023-01. We hope that this clarifies concerns and means for improvement, both of the regulations and activities of direct relevance to least-toxic pest control. Please do not hesitate to seek further information and clarifications.

We look forward to next steps.

Sincerely,



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2. Effects of glyphosate on soil fungal communities: A field study. 2021. <https://doi.org/10.1603/0046-225X-31.6.1206>

- Fungicidal Effects of Glyphosate and Glyphosate Formulations on Four Species of Entomopathogenic Fungi. 2002. <https://doi.org/10.1603/0046-225X-31.6.1206>

3. Glyphosate associations with cereal diseases caused by *Fusarium* spp. in the Canadian Prairies. 2009. doi:10.1016/j.eja.2009.07.003

- Glyphosate effects on diseases of plants. 2009. doi:10.1016/j.eja.2009.04.004

4. The Fungous Disease Caused by *Entomophthora grylli* Fres., and its Effects on Grasshopper Populations in Saskatchewan in 1963. <https://www.cambridge.org/core/journals/canadian-entomologist/article/fungous-disease-caused-by-entomophthora-grylli-fres-and-its-effects-on-grasshopper-populations-in-saskatchewan-in-1963/EE97A9B4CECB29A4E90FE03DE969F642>

5. Fungicidal Effects of Glyphosate and Glyphosate Formulations on Four Species of Entomopathogenic Fungi. 2002. <https://academic.oup.com/ee/article/31/6/1206/462159>

6. Research and development of a newly discovered, effective grasshopper biocontrol agent found in Canadian prairie soil. Project Code BPI06-070. <https://agriculture.canada.ca/en/science/agriculture-and-agri-food-research-centres/pest-management-centre/pesticide-risk-reduction-pest-management-centre/integrated-pest-management-projects/research-and-development-newly-discovered-effective-grasshopper-biocontrol-agent-found-canadian>