

Health
CanadaSanté
CanadaPest
Management
Regulatory
AgencyAgence de
réglementation
de la lutte
antiparasitaire

December 19, 2025

Bronwyn Roe
broe@ecojustice.ca

Dear Bronwyn Roe:

On behalf of Honourable Marjorie Michel, Minister of Health, I am responding to your letter dated December 12, 2025 and sent on behalf of Friends of the Earth Canada, Safe Food Matters, David Suzuki Foundation, Environmental Defence and Prevent Cancer Now. Thank you for taking the time to write to us on the regulatory status of glyphosate in Canada.

Health Canada's Pest Management Regulatory Agency (PMRA) acknowledges your request to initiate a special review of the toxicity, including carcinogenicity, of glyphosate. As you may know, the PMRA uses a systematic approach for determining whether a special review must be initiated as outlined in the [PMRA Guidance Document, Approach to Special Reviews of Pesticides](#). The PMRA will be following this process for the next steps pertaining to your request.

In your letter, you bring to our attention some recent scientific developments. Please find below PMRA's response to your concerns.

Global Glyphosate Study by the Ramazzini Institute

As mentioned earlier this year, the PMRA is aware of the 10 June 2025 publication in the Journal of Environmental Health outlining results from the Global Glyphosate Study undertaken by the Ramazzini Institute. The PMRA continues, along with its international regulatory partners, to assess the potential impact of this study on the human health effects assessment for glyphosate and glyphosate-based herbicides. The PMRA also notes study assessments conducted by trusted regulators in both Germany and the Netherlands that will be encompassed in the preliminary analysis undertaken by the PMRA. Specifically, an initial analysis done by the German Federal Institute for Risk Assessment (BfR) concluded that "[the study does not justify a change in the assessment of the active substance glyphosate](#)." The PMRA aims at completing its preliminary review of the publication by January 31, 2026. Further details are provided in Appendix 1, which reflect the current note on file in relation to this study.

Retraction of the article from Williams, Kroes and Munro, 2000

Your letter also asks about the PMRA's position following this retraction. The PMRA acknowledges the recent retraction of this review paper. A review paper typically summarizes and discusses information from primary data sources. While this review is listed in the references of PMRA's 2017 assessment, it is important to note that the primary data sources discussed in the Williams, Kroes and Monroe review were independently evaluated by PMRA. The PMRA had determined in 2012, as part of a literature review, that the Williams, Kroes and

Monroe review paper did not “meet the minimum criteria to be eligible for risk assessment of the active ingredient” and the paper was categorized as ‘invalid’ (unacceptable). The PMRA did not rely on the Williams, Kroes and Monroe review in reaching its final decision in the re-evaluation of glyphosate in 2017. Therefore, the retraction of this review does not affect the PMRA’s previous conclusions. Further details are provided in Appendix 2, which reflect the current note on file in relation to the retraction of this study.

The PMRA will continue its preliminary review of the study from the Ramazzini Institute as well as its processing of your special review initiation request. At this time, it appears unlikely that the information discussed above will call into question the conclusions of PMRA’s scientific assessment in the glyphosate re-evaluation which found that, when used according to label directions, glyphosate does not pose unacceptable risks to human health or the environment. This conclusion is also aligned with the position of other international regulatory authorities. If any new scientific information, including international reviews, alters the risk profile for glyphosate, the PMRA will take appropriate regulatory action.

In addition, please note that as part of our new, proactive approach to keeping pace with evolving scientific information and regulatory developments related to pesticides, the PMRA has initiated the monitoring of scientific literature related to glyphosate through its [Continuous Oversight Policy](#). The PMRA is committed to transparency in continuous oversight, with summary reports on scientific literature and regulatory information made available as described in the Information Note on Continuous Oversight.

I trust that this information is helpful and thank you for writing.

Sincerely,

Jason Flint
Chief Registrar and Director General, Registration Directorate
Health Canada’s Pest Management Regulatory Agency

Cc: Beatrice Olivastri, Friends of the Earth Canada
Mary Lou McDonald, Safe Food Matters
Lisa Gue, David Suzuki Foundation
Cassie Barker, Environmental Defence
Meg Sears, Prevent Cancer Now

Appendix 1

Memorandum To/Note adressée : Note to file, PMRA # 3788933

Subject/Objet: Global Glyphosate Study undertaken by the Ramazzini Institute

The PMRA is aware of the publication of 10 June 2025 in the Journal of Environmental Health outlining results from the Global Glyphosate Study undertaken by the Ramazzini Institute. The purpose of this note is to summarize the status of the current scientific analysis for this article: Panzacchi, S., Tibaldi, E., De Angelis, L. *et al.* Carcinogenic effects of long-term exposure from prenatal life to glyphosate and glyphosate-based herbicides in Sprague–Dawley rats. *Environ Health* 24, 36 (2025). <https://doi.org/10.1186/s12940-025-01187-2> .

The PMRA, along with its international regulatory partners, is assessing potential impact of this study on the human health effects assessment for glyphosate and glyphosate-based herbicides. In addition to the study itself, the PMRA is aware of study assessments completed by trusted regulators in both Germany and the Netherlands that will be encompassed in the preliminary analysis undertaken by the PMRA. Specifically, an initial analysis done by the German Federal Institute for Risk Assessment (BfR) concluded that “the study does not justify a change in the assessment of the active substance glyphosate.” Further, the BfR concludes that, “due to its design, the study is only very limited in its comparability with the many long-term studies on glyphosate that are already available.” Therefore, Germany indicated that the Ramazzini study does not refute their current findings. PMRA is also aware of a preliminary review of the study by the Netherlands, which noted potential flaws in the statistical methods used to derive the study conclusions. Further, the results pertaining to the dose-response relationship and the broader weight of evidence, such as discrepancies in the data reported in this publication vs. prior pre-prints, call into question the strength of the conclusions being made by the study authors. Capitalizing on the Netherlands and Germany’s analysis, the PMRA will complete a preliminary review of the publication, including statistical methods, to determine if our statisticians are in agreement with the Dutch conclusions. This will inform whether a full review is required or if the underlying study design is sufficiently flawed to preclude one. We anticipate completion of this assessment by January 31, 2026.

While PMRA will continue its preliminary review of this study, based on the published opinions of two of Canada’s trusted international regulatory partners, at this time it appears unlikely that the information presented by the Ramazzini Institute will call into question the previous conclusions of scientific assessments by PMRA and our international regulatory partners, which have found that when used according to label directions, glyphosate does not pose unacceptable risks to human health. If any new scientific information, including international reviews, alters the risk profile for glyphosate, the PMRA will take appropriate regulatory action.

Appendix 2

Memorandum To/Note adressée : Note to file, PMRA #3788934

Subject/Objet: Retraction of the article Safety Evaluation and Risk Assessment of the Herbicide Roundup and Its Active Ingredient, Glyphosate, for Humans ” by Williams, Kroes and Munro [31 (2000) 117–165]. *Regulatory Toxicology and Pharmacology*

On November 28, 2025, the journal *Regulatory Toxicology and Pharmacology* formally retracted the article “Safety Evaluation and Risk Assessment of the Herbicide Roundup and Its Active Ingredient, Glyphosate, for Humans” by Williams, Kroes and Munro [31 (2000) 117–165]. The journal indicated that the retraction is based on potential conflict of interest concerns for the authors and a potential bias in their conclusions. The retraction did not make a conclusion on the validity of the science within the individual studies being reviewed.

Health Canada acknowledges the recent retraction of this review paper which summarizes and discusses information from primary data sources at the time of publication. While the Williams, Kroes and Monroe review is listed in the references of PMRA’s 2017 re-evaluation, PMRA did not rely on this review paper in reaching its final decision. Upon initial review of the Williams, Kroes and Monroe paper¹, the PMRA determined that the paper did not meet the minimum criteria for scientific acceptability to be eligible for inclusion in PMRA’s risk assessment of the active ingredient and was categorized as unacceptable or invalid for regulatory use. The PMRA does not give any weight to unacceptable/invalid papers in its scientific assessment. While review papers typically provide scientific rationales, and occasionally contain primary data for consideration in scientific assessments, this specific review paper lacked scientific rationales and contained no original evidence. As such, the PMRA determined that it did not satisfy either of these elements. Therefore, the retraction of this review has no impact on PMRA’s re-evaluation conclusions.

Health Canada uses international standards to assess study quality, focusing on methods and data rather than conclusions, and only accepts studies that meet these standards. Using this approach, PMRA independently assessed the merits of the studies cited in the Williams, Kroes and Monroe review. PMRA’s re-evaluation was also based on other studies, including additional references not included in the Williams, Kroes and Monroe review paper. In all, more than 1300 studies were considered in the 2017 re-evaluation decision of glyphosate, including cancer studies in rodents (20 in total: 11 in rats, 9 in mice), genotoxicity studies, cancer epidemiology studies, and other mechanistic / short-term studies exploring the carcinogenicity mechanisms. This large body of evidence included studies from published scientific literature, industry supplied studies, and information from other regulatory authorities, encompassing a broad weight of evidence to support PMRA’s scientific conclusions. Details of this human health risk assessment as well as all relevant scientific studies evaluated for the glyphosate re-evaluation are presented in the proposed (PRVD2015-01) and final (RVD2017-01) re-evaluation decision documents.

For the reasons above, the retraction of the Williams, Kroes and Monroe (2000) review paper does not cast doubt on the previous conclusions of PMRA’s scientific assessment. When used according to label directions, glyphosate does not pose unacceptable risks to human health or the environment. This conclusion is also aligned with the position of other international regulatory authorities. If any new scientific information, including international reviews, is found to alter the risk profile for glyphosate, the PMRA will take appropriate regulatory action.

¹ PMRA # 2289777