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Proposed Maximum Residue Limit

PMRL2025-09

Cyantraniliprole

(publié aussi en français)

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Purpose of consultation

A maximum residue limit (MRL)¹ is being proposed for the pesticide cyantraniliprole, as part of the following application for Canadian use, under submission number 2022-6473.

Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing acceptability of the requested application to add hops to the product label of Exirel Insecticide containing technical grade cyantraniliprole to control labelled pests, as a postemergent foliar use. The specific uses approved in Canada are detailed on this product label, *Pest Control Products Act* Registration Number 30895.

The evaluation of this cyantraniliprole application indicated that the end-use product has value, and the human health and environmental risks associated with the new use are acceptable. Dietary risks from the consumption of food listed in [Table 1](#) were shown to be acceptable when cyantraniliprole is used according to the supported label directions. Therefore, food containing residues resulting from this use is safe to eat, and an MRL is being proposed as a result of this assessment. A summary of the field trial data used to support the proposed MRL can be found in [Appendix I](#).

Dietary health assessment

In assessing the risk of a pesticide, Health Canada combines information on pesticide toxicity with information on the degree and duration of dietary exposure to the pesticide residue from food. The risk assessment process involves four distinct steps:

- a) Identifying the toxicology hazards posed by the pesticide;
- b) Determining the “acceptable dietary level” for Canadians (including all vulnerable populations), which is protective of adverse health effects;
- c) Estimating human dietary exposure to the pesticide from all applicable sources (domestic and imported commodities); and
- d) Characterizing health risk by comparing the estimated human dietary exposure to the acceptable dietary level.

Before registering a pesticide for food use in Canada, Health Canada must determine the quantity of residues that could remain in or on the food when the pesticide is used according to label directions and that such residues will not be a concern to human health (Steps 3 and 4 above). If estimated human exposure is less than or equal to the acceptable level (developed in Step 2 above), Health Canada concludes that consuming residues resulting from use according to approved label directions is not a health concern.

¹ A maximum residue limit (MRL) is the maximum amount of residue that may remain in or on food when a pesticide is used according to label directions.

The proposed MRL is then subject to consultation to legally specify it as an MRL. An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except for certain instances where different MRLs are specified for the raw agricultural commodity and its processed product(s).

Consultation on the proposed MRL for cyantraniliprole is being conducted via this document. Health Canada invites the public to submit written comments on the proposed MRL for cyantraniliprole in accordance with the process outlined in the [How to get involved](#) Section of this document.

To comply with Canada's international trade obligations, consultation on the proposed MRL is also being conducted internationally by notifying the World Trade Organization, as coordinated by the Canada's Notification Authority and Enquiry Point.

Proposed MRL

The proposed MRL, to be added to the MRLs already established for cyantraniliprole, is summarized in [Table 1](#).

Table 1 Proposed maximum residue limit for cyantraniliprole

Common name	Residue definition	MRL (ppm) ¹	Food commodity
Cyantraniliprole	3-bromo-1-(3-chloro-2-pyridinyl)-N-[4-cyano-2-methyl-6-[(methylamino)carbonyl]phenyl]-1H-pyrazole-5-carboxamide	70	Hops (dried cones)

¹ ppm = parts per million

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International situation and trade implications

As reported in [Table 2](#), the MRL proposed for cyantraniliprole in Canada is the same as corresponding tolerance proposed in the United States (U.S.) as listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. Currently, there are no Codex MRLs² listed for cyantraniliprole in or on the petitioned commodity on the Codex Alimentarius Pesticide Index webpage.

² The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Table 2 Comparison of proposed Canadian MRL, U.S. tolerances and Codex MRLs

Food commodity	Proposed Canadian MRL (ppm)	Established U.S. tolerance (ppm)	Established Codex MRL (ppm)
Hops (dried cones)	70	70	Not Established

How to get involved

Health Canada invites the public to submit written comments on the proposed MRL for cyantraniliprole up to 75 days from the date of publication of this document (by 5 October 2025). Please forward your comments to Publications. Health Canada will consider all comments received and a science-based approach will be applied in making a final decision on the proposed MRL. Comments received will be addressed in a response to comments document found in Pesticides and pest management consultations. The established MRL will be legally in effect as of the date that it is entered into the Maximum Residue Limit Database.

Appendix I

Summary of field trial data used to support the proposed maximum residue limit

Residue data for cyantraniliprole were submitted to support the use of Exirel Insecticide on hops.

Dietary risk assessment results

Studies in laboratory animals showed no acute health effects relative to dietary exposure. Consequently, a single dose of cyantraniliprole is not likely to cause acute health effects in the general population (including infants and children).

Chronic dietary (food plus drinking water) intake estimates indicated that the general population and all population subgroups are exposed to less than 96% of the acceptable daily intake, and therefore there are no health concerns.

Maximum residue limit

The recommendation for a maximum residue limit (MRL) for cyantraniliprole was based upon the submitted field trial data, and the guidance provided in the OECD MRL Calculator. [Table A1](#) summarizes the residue data for cyantraniliprole used to calculate the proposed MRL for hops (dried cones).

Table A1 Summary of field trial data used to support the MRL

Commodity	Application method/Total application rate (g a.i./ha) ¹	Preharvest interval (days)	Lowest average field trial residues (ppm)	Highest average field trial residues (ppm)
Hops (dried cones)	Foliar application/ 447-455	1	6.7	36

¹ g a.i./ha = grams of active ingredient per hectare

Following the review of all available data, the MRL proposed in [Table 1](#) is recommended, in order to cover residues of cyantraniliprole. Dietary risks from exposure to residues of cyantraniliprole in this crop commodity at the proposed MRL was shown to be acceptable for the general population and all subpopulations, including infants, children, adults and seniors. Thus, the food that contain residues as listed in [Table 1](#) is considered safe to eat.

References

PMRA Number	Citation
3417330	2020, Final report - Cyantraniliprole: Magnitude of the Residue on Hops, DACO: 7.4.1