Proposed Maximum Residue Limit PMRL2024-07

Dichlorprop

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Purpose of consultation

A maximum residue limit (MRL)[1] is being proposed for the pesticide dichlorprop, as part of the following application for Canadian use, under submission number 2022-1565.

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 register the new end-use product BlackHawk EVO Herbicide (containing technical grade dichlorprop-P, pyraflufen-ethyl and 2,4-D), to control or suppress certain weeds on wheat, barley, oats, triticale, rye, field corn and annual canarygrass. The specific uses approved in Canada are detailed on this product label, *Pest Control Products Act* Registration Number 34904.

The evaluation of this dichlorprop-P, pyraflufen-ethyl and 2,4-D application indicated that the end-use product has value, and the human health and environmental risks associated with the new uses are acceptable. Dietary risks from the consumption of the food listed in Table 1 were shown to be acceptable when dichlorprop-P 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:

1) Identifying the toxicology hazards posed by the pesticide;
2) Determining the "acceptable dietary level" for Canadians (including all vulnerable populations), which is protective of adverse health effects;
3) Estimating human dietary exposure to the pesticide from all applicable sources (domestic and imported commodities); and
4) 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. 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

[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.

instances where different MRLs are specified for the raw agricultural commodity and its processed product(s).

Residues of the resolved isomer dichlorprop-P are covered by the MRLs established for dichlorprop, the unresolved isomeric mixture. Consultation on the proposed MRL for dichlorprop is being conducted via this document. MRLs are currently established for dichlorprop on wheat, barley, oats, triticale, rye and field corn. MRLs are also currently established for pyraflufen-ethyl and 2,4-D on wheat, barley, oats, triticale, rye, field corn and annual canarygrass; accordingly, separate PMRL actions are not required.

Health Canada invites the public to submit written comments on the proposed MRL for dichlorprop in accordance with the process outlined in the Next steps 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 dichlorprop, is summarized in Table 1.

Table 1 Proposed maximum residue limit for dichlorprop

Common name	Residue definition	MRL (ppm)[1]	Food commodity
Dichlorprop	(±)-2-(2,4-dichlorophenoxy)propanoic acid	0.02	Annual canarygrass grain

[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

Currently, there are no Codex MRLs[2] listed for dichlorprop in or on the petitioned commodities on the Codex Alimentarius Pesticide Index webpage, nor are there U.S. tolerances for dichlorprop in or any commodity on the Electronic Code of Federal Regulations, 40 CFR Part 180.

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

Next steps

Health Canada invites the public to submit written comments on the proposed MRL for dichlorprop up to 75 days from the date of publication of this document (by 30 July 2024). 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

Previously reviewed residue data from field trials conducted in/on barley were re-assessed in the framework of this petition to support the use of BlackHawk EVO Herbicide on annual canarygrass.

Dietary risk assessment results

Acute dietary (food plus drinking water) intake estimates indicated that the general population and all population subgroups are exposed to less than 32% of the acute reference dose, and therefore there are no health concerns.

Chronic (non-cancer and cancer) dietary (food plus drinking water) intake estimates indicated that the general population and all population subgroups are exposed to less than 4% of the acceptable daily intake, and therefore there are no health concerns.

Maximum residue limit

The recommendation for a maximum residue limit (MRL) for dichlorprop was based upon the re-assessed field trial data, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data for dichlorprop used to calculate the proposed MRL for annual canarygrass grain.

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

Commodity	Application method/Total application rate (g a.e./ha)[1]	Preharvest interval (days)	Lowest average field trial residues (ppm)	Highest average field trial residues (ppm)	Experimental processing factor
Barley grain	Broadcast foliar/ 772	66–92	<0.01	<0.01	No quantifiable residues observed at exaggerated rates

[1] g a.e./ha = grams of acid equivalent of the 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 dichlorprop. Dietary risks from exposure to residues of dichlorprop in this crop commodity at the proposed MRL were shown to be acceptable for the general population and all subpopulations, including infants, children, adults and seniors. Thus, food that contains residues as listed in Table 1 is considered safe to eat.

References

None.