Proposed Maximum Residue Limit PMRL2022-18

Dicamba

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Purpose of consultation

A maximum residue limit (MRL)[1] is being proposed for the pesticide dicamba, as part of the following application for Canadian use, under submission number 2018-3177.

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 the new commodity of annual canarygrass to the product label of IPCO Tracker XP Liquid Herbicide, containing technical grade MCPA, mecoprop-p and dicamba, to control or suppress various broadleaf weeds. The specific uses approved in Canada are detailed on this product label, *Pest Control Products Act* Registration Number 27790.

The evaluation of this dicamba, mecoprop-p and MCPA 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 dicamba 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

[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.

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 dicamba is being conducted via this document. IPCO Tracker XP Liquid Herbicide contains two other active ingredients; mecoprop-p and MCPA. An MRL consultation for mecoprop-p is being consulted under a separate action. For MCPA, the currently established MRLs of 0.04 ppm on annual canarygrass bran, and 0.03 ppm on annual canarygrass grain are sufficient to cover residues resulting from this new use and are therefore unaffected by this MRL action. Health Canada invites the public to submit written comments on the proposed MRL for dicamba 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 dicamba, is summarized in Table 1.

Table 1 Proposed maximum residue limit for dicamba

Common name	Residue definition	MRL (ppm)[1]	Food commodity
Dicamba	benzoic acid,3,6-dichloro-2-methoxy including the metabolite benzoic acid, 2,5-dichloro-3-hydroxy-6-methoxy- (expressed in parent equivalents)	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 is no American tolerance for dicamba in or on the petitioned commodity listed in the Electronic Code of Federal Regulations, 40 CFR, part 180, by pesticide; nor is there a Codex MRL[2] listed for dicamba in or on the petitioned commodity on the Codex Alimentarius Pesticide Index webpage.

Next steps

Health Canada invites the public to submit written comments on the proposed MRL for dicamba up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). 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 separate document linked to this PMRL. The established MRL will be legally in effect as of the date that it is entered into the Maximum Residue Limit Database.

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

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 wheat and barley were reassessed in the framework of this petition. In addition, a processing study in treated wheat was also reassessed to determine the potential for concentration of residues of dicamba into processed commodities.

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 8% of the acute reference dose, and therefore there are no health concerns.

Chronic 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 the maximum residue limit (MRL) for dicamba was based upon the field trial data on file, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data 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 (kg a.e./ha)[1]	Preharvest interval (days)	Lowest average field trial residues (ppm)	Highest average field trial residues (ppm)	Experimental processing factor
Wheat grain	Foliar application/ 0.02–0.07	96–111	<0.02	<0.02	No concentration in processed fractions
	Foliar application/ 0.08	64–107	<0.017	<0.017	
Barley grain	Foliar application/ 0.02–0.07	96–111	<0.02	<0.02	
	Foliar application/ 0.08	64–96	<0.017	<0.017	

[1] kg a.e./ha = kilograms of acid equivalents per hectare

Following the review of all available data, the MRL proposed in Table 1 is recommended to cover residues of dicamba. Dietary risks from exposure to residues of dicamba 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 the food that contain residues as listed in Table 1 is considered safe to eat.

References

None.