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Proposed Maximum Residue Limit

PMRL2019-09

Cypermethrin

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Under the authority of the [Pest Control Products Act](#), Health Canada's Pest Management Regulatory Agency (PMRA) has concluded that the addition of new uses on crop subgroup 12-09A, crop subgroup 13-07A, crop subgroup 13-07B and crop subgroup 13-07G to the product labels of Ripcord 400EC Agricultural Insecticide and Mako Insecticide, containing technical grade cypermethrin, is acceptable. The specific uses approved in Canada are detailed on the labels of Ripcord 400EC Agricultural Insecticide and Mako Insecticide, *Pest Control Products Act* Registration Numbers 15738 and 30316, respectively.

The evaluation of these cypermethrin applications indicated that the end-use products have value and the human health and environmental risks associated with the new uses are acceptable.

Before registering a pesticide for food use in Canada, the PMRA must determine the quantity of residues that are likely to 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. This quantity is then legally established as a maximum residue limit (MRL). An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for cypermethrin is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

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

The proposed MRLs, to replace or be added to the MRLs already established for cypermethrin, are as follows.

Table 1 Proposed Maximum Residue Limits for Cypermethrin

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Cypermethrin	cyano(3-phenoxyphenyl)methyl-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate	2.0	Cherries (crop subgroup 12-09A); lowbush blueberries
		0.8 ²	Bushberries (crop subgroup 13-07B, except lowbush blueberries); caneberries (crop subgroup 13-07A)

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
		0.3 ^{2,3}	Low growing berries (crop subgroup 13-07G, except lowbush blueberries)

¹ ppm = parts per million

² Although lowbush blueberry is a commodity in both crop subgroup 13-07B and 13-07G, the proposed crop subgroup MRLs do not apply to lowbush blueberries, as a separate MRL is being proposed for this commodity.

³ As strawberries are included in crop subgroup 13-07G, it is proposed that the currently established MRL of 0.2 ppm for strawberries be replaced by the MRL of 0.3 ppm for the commodities in crop subgroup 13-07G.

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the [Residue Chemistry Crop Groups](#) webpage in the Pesticides portion of the Canada.ca website.

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

MRLs may vary from one country to another for a number of reasons, including differences in pesticide use patterns and the locations of the crop field trials used to generate residue chemistry data.

Table 2 compares the MRLs proposed for cypermethrin in Canada with corresponding American tolerances and Codex MRLs.¹ American tolerances are listed in the [Electronic Code of Federal Regulations](#), 40 CFR Part 180, by pesticide. A listing of established Codex MRLs is available on the Codex Alimentarius [Pesticide Index](#) webpage, by pesticide or commodity.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Cherries (crop subgroup 12-09A)	2.0	1.0 (Fruit, stone, group 12)	2 (Stone fruits)

¹ The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Bushberries (crop subgroup 13-07B)	2.0 (Lowbush blueberries) 0.8 (Crop subgroup 13-07B, except lowbush blueberries)	0.8 (Berry group 13)	Not established
Caneberries (crop subgroup 13-07A)	0.8	0.8 (Berry group 13)	Not established
Low growing berries (crop subgroup 13-07G, except lowbush blueberries)	0.3	Not established	0.07 (Strawberry)

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for cypermethrin 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). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the [Maximum Residue Limit Database](#).

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data for cypermethrin in blackberries, highbush blueberries, lowbush blueberries, cherries, raspberries, and strawberries were submitted to support the domestic use of Ripcord 400EC Agricultural Insecticide and Mako Insecticide on crop subgroups 12-09A, 13-07A, 13-07B and 13-07G.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for cypermethrin was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). Table A1 summarizes the residue data used to calculate the proposed MRLs for crop subgroup 12-09A, crop subgroup 13-07A, crop subgroup 13-07B and crop subgroup 13-07G.

Table A1 Summary of Field Trial Data Used to Support the MRLs

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)
Blackberries	Foliar application/ 215-219	2	0.11	0.66
Highbush blueberries	Foliar application/ 142-144	2	0.11	0.49
Lowbush blueberries	Foliar application/ 141-143	2-9	0.45	0.90
Cherries	Foliar application/ 119-126	2-8	0.088	0.21
Raspberries	Foliar application/ 221-234	2	0.34	0.52
Strawberries	Foliar application/ 215-231	2	0.064	0.104

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

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of cypermethrin. Residues of cypermethrin in these crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.