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Proposed Maximum Residue Limit

PMRL2017-32

Flumioxazin

(publié aussi en français)

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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 various commodities to the product label of Chateau Herbicide WDG, containing technical grade flumioxazin, is acceptable. The specific uses approved in Canada are detailed on the label of Chateau Herbicide WDG, *Pest Control Products Act* Registration Number 29231.

The evaluation of this flumioxazin application indicated that the end-use product has 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 flumioxazin 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 be added to the MRLs already established for flumioxazin, are as follows.

Table 1 Proposed Maximum Residue Limits for Flumioxazin

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Flumioxazin	2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propyn-1-yl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione	0.5	Caneberries (crop subgroup 13-07A)
		0.02	Leaf Petioles (crop subgroup 4B); broccoli, peppermint tops, spearmint tops

¹ ppm = parts per million

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's 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 flumioxazin 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 Residues in Food and Feed website, by pesticide or commodity.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Caneberries (crop subgroup 13-07A)	0.5	0.5	Not Established
Leaf Petioles (crop subgroup 4B)	0.02	0.02 (Leaf petioles subgroup 4B)	Not Established
Broccoli	0.02	0.02 (Vegetable, brassica, head and stem, group 5-16)	Not Established
Peppermint tops and spearmint tops	0.02	0.04 (Peppermint tops; spearmint tops)	0.02 (Mint)

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

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for flumioxazin 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 flumioxazin in broccoli, celery, raspberries, blackberries, peppermint and spearmint were submitted to support the domestic use of Chateau Herbicide WDG on broccoli, celery, peppermint, spearmint and Caneberries (crop subgroup 13-07A).

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for flumioxazin 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 broccoli, peppermint, spearmint and crops within crop subgroups 4B (Leaf Petioles) and 13-07A (Caneberries).

Table A1 Summary of Field Trial Data Used to Support 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)
Raspberries and blackberries	Soil directed application / 815-877	6-8	<0.02	0.247
Broccoli	Pre-plant soil directed application/ 103 -192	56-96	<0.02	<0.02
Celery	Soil broadcast application/ 104-122	73-127	<0.02	<0.02
Peppermint and spearmint	Broadcast spray/ 546-597	79-80	<0.02	<0.02

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 flumioxazin. Residues of flumioxazin 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.