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Proposed Maximum Residue Limit

PMRL2019-19

Pendimethalin

(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 field tomatoes, broccoli, cabbage and cauliflower to the product label of Prowl H₂O Herbicide, containing technical grade pendimethalin is acceptable. The specific uses approved in Canada are detailed on the label of Prowl H₂O Herbicide, *Pest Control Products Act* Registration Number 29542.

The evaluation of these pendimethalin applications 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 pendimethalin is being conducted via this document (see Next Steps). 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 pendimethalin, are as follows.

Table 1 Proposed Maximum Residue Limits for Pendimethalin

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Pendimethalin	<i>N</i> -(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine, including the metabolite benzenemethanol, 4-[(1-ethylpropyl)amino]-2-methyl-3,5-dinitro-	0.1	Head and stem <i>Brassica</i> (crop subgroup 5A), tomatoes subgroup (crop subgroup 8-09A)

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 section 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

The MRLs proposed for pendimethalin in Canada are the same as corresponding American tolerances as listed in the [Electronic Code of Federal Regulations](#), 40 CFR Part 180, by pesticide. Currently, there are no Codex MRLs¹ listed for pendimethalin in or on these commodities on the Codex Alimentarius [Pesticide Index](#) webpage.

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for pendimethalin 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](#).

¹ 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 Limits

Residue data for pendimethalin in field tomatoes, broccoli and cabbage were submitted to support the domestic use of Prowl H₂O Herbicide on field tomatoes, broccoli, cabbage and cauliflower. In addition, a processing study in treated tomatoes was reviewed to determine the potential for concentration of residues of pendimethalin into processed commodities.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for pendimethalin 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 the head and stem *Brassica* subgroup (crop subgroup 5A) and the tomato subgroup (crop subgroup 8-09A).

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

Commodities	Application Method/ Total Application Rate (kg a.i./ha) ¹	Preharvest Interval (days)	Lowest Average Field Trial Residues (ppm)	Highest Average Field Trial Residues (ppm)	Experimental Processing Factor
Broccoli	Foliar broadcast application/ 1.11-1.15	58-99	<0.10	<0.10	Not required
Cabbage	Foliar broadcast application/ 1.11-1.15	70-108	<0.10	<0.10	Not required
Field tomatoes (standard size and small cultivars)	Post-emergent application directed to the base of the plants and between rows/ 1.63 – 1.70	21	<0.10	<0.10	No quantifiable residues observed at exaggerated rates

¹ kg a.i./ha = kilograms of active ingredient per hectare

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of pendimethalin. Residues of pendimethalin 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.