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Proposed Maximum Residue Limit

PMRL2018-50

Clethodim

(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 dry bulb shallots and crop subgroups 6A and 6B to the product labels of Select Emulsifiable Concentrate Post-Emergent Herbicide and Centurion Emulsifiable Concentrate Post-Emergent Herbicide, containing technical grade clethodim, is acceptable. The specific uses approved in Canada are detailed on the labels of Select Emulsifiable Concentrate Post-Emergence Herbicide and Centurion Emulsifiable Concentrate Post-Emergence Herbicide, Pest Control Products Act Registration Numbers 22625 and 27598, respectively.

The evaluation of these clethodim 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 clethodim 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 revised or added to the MRLs already established for clethodim, are as follows:

Table 1 Proposed Maximum Residue Limits for Clethodim

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Clethodim	2-[1-[[[(2E)-3-chloro-2-propen-1-yl]oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one and its metabolites containing the 2-cyclohex-1-enone moiety	3.5 ²	Edible-podded legume vegetables (crop subgroup 6A), succulent shelled pea and bean (crop subgroup 6B)
		0.5	Shallot bulbs

¹ ppm = parts per million

² In addition, it is proposed that the established MRL of 0.5 ppm for “beans” be replaced with an MRL of 0.5 ppm for each of the dry bean commodities in crop subgroup 6C in order to reflect current terminology.

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 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 clethodim in Canada are the same as corresponding American tolerances as listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. However, the MRLs proposed for clethodim differ from the Codex MRLs¹ listed for clethodim in or on beans on the Pesticide Index webpage.

Table 2 compares the MRLs proposed for clethodim in Canada with corresponding American tolerances and Codex MRLs.

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

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Edible-podded legume vegetables (crop subgroup 6A), Succulent shelled pea and bean (crop subgroup 6B)	3.5	3.5 Vegetable, legume, group 6, except soybean	0.5 Beans, except broad and soya bean (No Codex MRLs are established for succulent peas)
Shallot bulbs	0.5	0.5 Onion, bulb, subgroup 3-07A	Not established

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 clethodim 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 clethodim in edible-podded beans and peas, succulent shelled beans and peas and dry bulb onions were submitted to support the domestic uses of Select Emulsifiable Concentrate Post-Emergent Herbicide and Centurion Emulsifiable Concentrate Post-Emergent Herbicide on crop subgroups 6A and 6B and dry bulb shallots.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for clethodim 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 crops within crop subgroups 6A and 6B and dry bulb shallots.

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)
Edible-podded beans	Foliar broadcast application/ 554–569	20–22	< 0.183	0.450
Edible-podded peas	Foliar broadcast application/ 566–585	20–22	0.618	1.720
Succulent shelled beans	Foliar broadcast application/ 557–586	20–22	< 0.183	0.630
Succulent shelled peas	Foliar broadcast application/ 567–574	16–21	1.343	2.338
Dry bulb onions	Foliar post-emergent application/560-606	44–45	< 0.094	< 0.24

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 clethodim. Residues of clethodim 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.