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Proposed Maximum Residue Limit PMRL2013-107

Quizalofop-ethyl

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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 sunflower seeds to the product label of Assure II Herbicide, containing technical grade quizalofop-P-ethyl, is acceptable. The specific uses approved in Canada are detailed on the label of Assure II Herbicide, *Pest Control Products Act* Registration Number 25462.

The evaluation of this quizalofop-P-ethyl application indicated that the end-use product has merit and 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.

In addition, the PMRA is proposing to establish MRLs for quizalofop-ethyl on commodities of Crop Subgroup 20A (Rapeseed; Revised), except flaxseeds, to permit the import and sale of food containing such residues. The PMRA has determined the quantity of residues that are likely to remain in or on the imported commodities when quizalofop-P-ethyl is used according to label directions in the exporting country, and that such residues will not be a concern to human health.

Residues of the resolved isomer quizalofop-P-ethyl are covered by MRLs established for quizalofop-ethyl, the unresolved isomeric mixture. Consultation on the proposed MRLs for quizalofop-ethyl 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 Standards Council of Canada.

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

Table 1 Proposed Maximum Residue Limits for Quizalofop-ethyl

Common Name	Residue Definition	MRL (ppm)[1]	Food Commodity
Quizalofop -ethyl	Ethyl (*RS*) 2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy] propionate, including the acid metabolites of (*RS*)2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy] propanoic acid, all expressed as quizalofop-ethyl	3	Sunflower seeds
		1.5 [2]	Crop Subgroup 20A (Rapeseed; Revised) except flaxseeds

[1] ppm = parts per million
[2] The MRL of 1.5 ppm for Crop Subgroup 20A (Rapeseed; Revised) except flaxseeds will replace the currently established MRLs of 0.05 ppm in/on mustard seeds (oilseed type) and rapeseeds (canola).

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 field crop trials used to generate residue chemistry data.

The MRLs proposed for quizalofop-ethyl in/on commodities of Crop Subgroup 20A (Rapeseed; Revised) except flaxseeds in Canada are the same as corresponding American tolerances as listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide.

Table 2 compares the MRLs proposed for quizalofop-ethyl 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. Currently, there are no Codex MRLs listed for quizalofop-ethyl in or on any commodity on the Codex Alimentarius Pesticide Residues in Food webpage.

[1] The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including 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)
Sunflower seeds	3	1.9	Not Established

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for quizalofop-ethyl 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 from field trials conducted in the United States were submitted to support the domestic use of Assure II Herbicide on sunflowers. Quizalofop-P-ethyl was applied at exaggerated rates to sunflowers, which were harvested according to label directions. Previously reviewed residue data from field trials conducted in/on canola were reassessed in the framework of this petition. In addition, a processing study in treated sunflowers was reviewed and a previously reviewed processing study in treated canola was reassessed to determine the potential for concentration of residues of quizalofop-P-ethyl into processed commodities.

Maximum Residue Limit(s)
The recommendations for maximum residue limits (MRLs) for quizalofop-ethyl were 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 sunflower seeds and commodities of Crop Subgroup 20A (Rapeseed; Revised) except flaxseeds.

TABLE A1 Summary of Field Trial and Processing Data Used to Support Maximum Residue Limit(s)

Commodity	Application Method/ Total Application Rate (g a.i./ha)	Preharvest Interval (days)	Residues (ppm)		Experimental Processing Factor
			Min	Max	
Sunflowers	Foliar ground spray/ 131–140	60–61	0.15	1.84	Residues did not concentrate in refined oil
Canola	Foliar ground spray/ 105–210	43–60	<0.054	1.620	Residues did not concentrate in refined oil

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of quizalofop-ethyl, including the acid metabolites, all expressed as quizalofop-ethyl. Residues of quizalofop-P-ethyl 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.