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Proposed Maximum Residue Limit

PMRL2018-02

Mefenpyr-Diethyl

(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 wheat (spring, winter and durum), barley, oats, rye (spring and fall), triticale and canarygrass seeds to the product label of Prosaro XTR Fungicide, containing technical grade prothioconazole, tebuconazole and the safener mefenpyr-diethyl, is acceptable. The specific uses approved in Canada are detailed on the label of Prosaro XTR Fungicide, Pest Control Products Act Registration Number 32824.

The evaluation of this mefenpyr-diethyl 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 mefenpyr-diethyl 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 for mefenpyr-diethyl can be found in Appendix I. MRL consultations for the other active ingredients (prothioconazole and tebuconazole) present in Prosaro XTR Fungicide are being conducted under separate actions.

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 mefenpyr-diethyl, are as follows.

Table 1 Proposed Maximum Residue Limits for Mefenpyr-Diethyl

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Mefenpyr-Diethyl	diethyl 1-(2,4-dichlorophenyl)-4,5-dihydro-5-methyl-1H-pyrazole-3,5-dicarboxylate including the metabolite 1-(2,4-dichlorophenyl)-5-methyl-2-pyrazoline-3-carboxylic acid	0.05	Annual canarygrass seeds, oats, rye, triticale

¹ ppm = parts per million

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

Currently there are no corresponding American tolerances listed for annual canarygrass seeds, oats, rye and triticale in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. Currently, there are no Codex MRLs¹ listed for mefenpyr-diethyl in or on any commodity on the Codex Alimentarius Pesticide Residues in Food and Feed webpage.

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for mefenpyr-diethyl 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 mefenpyr-diethyl in/on wheat, barley and oats were submitted to support the domestic use of Prosaro XTR Fungicide on wheat (spring, winter and durum), barley, oats, rye (spring and fall), triticale and canarygrass seeds. Previously reviewed residue data from field trials conducted in/on wheat and barley were also re-assessed in the framework of this petition. In addition, a previously and a newly submitted processing study in treated wheat were reviewed to determine the potential for concentration of residues of mefenpyr-diethyl into processed commodities.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for mefenpyr-diethyl was based upon the previously reviewed and newly submitted field trial data, and the guidance provided in the OECD MRL Calculator. MRLs have already been established for wheat and barley. Table A1 summarizes the residue data used to calculate the proposed MRLs for oats, rye, triticale and annual canarygrass seeds.

Table A1 Summary of Field Trial and Processing 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)	Experimental Processing Factor
Barley grain	Foliar application/ 81 – 88	28 – 36	<0.02	<0.02	No quantifiable residues were observed in wheat grain when treated at exaggerated rates.
	Foliar application/ 100	55 – 65	<0.02	<0.04	
Wheat grain	Foliar application/ 82 – 87	28 – 36	<0.02	<0.02	
	Foliar application/ 25 – 100	55 – 79	<0.02	<0.022	
Oat grain	Foliar application/ 84 – 87	28 – 36	<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 mefenpyr-diethyl in/on oats, rye, triticale and annual canarygrass seeds. Residues of mefenpyr-diethyl 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.