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Proposed Maximum Residue Limit

PMRL2020-26

Difenoconazole

(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) is proposing to establish maximum residue limits (MRLs) for difenoconazole on various commodities to permit the import and sale of foods containing such residues.

Difenoconazole is a fungicide currently registered in Canada for use on various commodities.

The PMRA must determine the quantity of residues that are likely to remain in or on the imported food commodities when difenoconazole is used according to label directions in the exporting country, and that such residues will not be a concern to human health. This quantity is then legally established as an MRL on the corresponding imported commodity. 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 difenoconazole 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 Canada's Notification Authority and Enquiry Point.

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

Table 1 Proposed maximum residue limits for Difenoconazole

Common name	Residue definition	MRL (ppm) ¹	Food commodity
Difenoconazole	1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-1 <i>H</i> -1,2,4-triazole	35	Arugula, Chinese broccoli ² , abyssinian cabbages, seakale cabbages, garden cress, upland cress, hanover salad, maca, mizuna, radish leaves, wild rocket, shepherd's purse, turnip greens and watercress
		30	Tea (dried leaves)
		8	Rice, wild rice ³
		3	Guavas
		1.5	Globe artichokes
		0.6	Papayas ⁴

Common name	Residue definition	MRL (ppm) ¹	Food commodity
		0.4	Undelinted cotton seeds ⁵

¹ ppm = parts per million

² This MRL is proposed to replace the currently established MRL of 1.9 ppm

³ This MRL is proposed to replace the currently established MRLs of 0.01 ppm

⁴ This MRL is proposed to replace the currently established MRL of 0.3 ppm

⁵ This MRL is proposed to replace the currently established MRL of 0.05 ppm

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

Table 2 compares the MRLs proposed for difenoconazole 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 Index webpage, by pesticide or commodity.

Table 2 Comparison of Canadian MRLs, American tolerances and codex MRLs (where different)

Food commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Papaya	0.6	0.6	0.2
Rice, wild rice	8	7	8
Tea (dried leaves)	30	15	None
Undelinted cotton seeds	0.4	0.4 (cottonseed subgroup 20C)	None

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 difenoconazole 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 difenoconazole in various crops were submitted to support the maximum residue limits on imported commodities. Previously reviewed residue data from field trials conducted in/on mustard greens were also reassessed in the framework of this petition. In addition, processing studies in treated tea and cotton were reviewed to determine the potential for concentration of residues of difenoconazole into processed commodities.

Maximum residue limits

The recommendation for maximum residue limits (MRLs) for difenoconazole was based upon the residues observed in crop commodities treated according to the labels in the exporting countries, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs for various imported commodities.

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
Arugula, Chinese broccoli, abyssinian cabbages, seakale cabbages, garden cress, upland cress, hanover salad, maca, mizuna, radish leaves, wild rocket, shepherd's purse, turnip greens and watercress	Foliar Spray/520	1	3.1	14.2	Not required
Globe artichoke	Foliar Spray/605–772	3	0.301	0.565	Not required
Guava	Foliar Spray/517–531	0	0.104	1.35	Not required
Papaya	Foliar Spray/507–519	0	0.099	0.280	Not required
Rice, wild rice	Foliar Spray/268–284	27–32	0.041	5.21	Not required
Tea (dried leaves)	Foliar	7	2.08	11.6	0.09x (tea

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
	Spray/394-402				infusion)
Undelinted cotton seeds	Foliar Spray/382-397	44 – 48	<0.010	0.245	0.08x (refined oil)

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 difenoconazole. Residues of difenoconazole in these imported crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.