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Proposed Maximum Residue Limit

PMRL2021-13

Metalaxyl

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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 various commodities to the product label of Orondis Gold Fungicide, containing technical grade metalaxyl-M and S-isomer and oxathiapiprolin, is acceptable. The specific uses approved in Canada are detailed on the label of Orondis Gold Fungicide, *Pest Control Products Act* Registration Number 33508.

The evaluation of this metalaxyl-M 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.

Residues of the resolved isomer metalaxyl-M are covered by MRLs established for metalaxyl, the unresolved isomeric mixture. Consultation on the proposed MRLs for metalaxyl is being conducted via this document (see Next Steps). MRL consultation for the other active ingredient, oxathiapiprolin, present in Orondis Gold Fungicide is being conducted under a separate action. 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 replace or be added to the MRLs already established for metalaxyl, are as follows.

Table 1 Proposed maximum residue limits for metalaxyl

Common name	Residue definition	MRL (ppm) ¹	Food commodity
Metalaxyl	Methyl <i>N</i> -(2,6-dimethylphenyl)- <i>N</i> -(methoxyacetyl)-DL-alaninate, including metabolites that can be converted to the 2,6-dimethylaniline moiety, each expressed as metalaxyl equivalents	10	Bearberries, bilberries, cloudberries, lowbush blueberries, ² muntries, partridgeberries
		1.5	Caneberries (crop subgroup 13-07A) ³

Common name	Residue definition	MRL (ppm) ¹	Food commodity
		0.5	Tree Nuts (crop group 14-11, except almond nuts, black walnuts, and English walnuts) ⁴

¹ ppm = parts per million

² The MRL is proposed to replace the currently established 3.0 ppm MRL for lowbush blueberries.

³ The MRL is proposed to replace the currently established 0.2 ppm MRL for raspberries and add MRLs for the remaining commodities in the crop subgroup.

⁴ Almond nuts, black walnuts and English walnuts are excluded from this MRL action as a 0.5 ppm MRL is already established for these commodities.

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

MRLs may vary from one country to another for a number of reasons, including differences in pesticide use patterns and the locations of the crop field trials used to generate residue chemistry data.

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

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)
Bearberries, bilberries, cloudberrries, lowbush blueberries ¹ , muntries, partridgeberries	10	2.0 (blueberries)	Not established.
Caneberries (crop subgroup 13-07A)	1.5	0.5 (raspberry)	0.2 (Raspberries, red, black)
Tree Nuts (crop group 14-11, except almond nuts, black walnuts, and English walnuts)	0.5	Not established	Not established

¹ Lowbush blueberries is in multiple crop subgroups and is included with low growing berries (crop subgroup 13-07G) for this MRL action.

Next steps

The PMRA invites the public to submit written comments on the proposed MRLs for metalaxyl 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 metalaxyl-M in pecans were submitted to support the domestic use of metalaxyl-M on tree nuts (crop group 14-11). Previously reviewed residue data from field trials conducted in/on almonds, strawberries, raspberries and blackberries were reassessed in the framework of this petition to support the domestic use of metalaxyl-M on caneberries (crop subgroup 13-07A), low growing berries (crop subgroup 13-07G, except lingonberries and cranberries) and tree nuts (crop group 14-11).

Maximum residue limits

The recommendation for maximum residue limits (MRLs) for metalaxyl 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 crop subgroup 13-07A (caneberries), various low growing berries, and crop group 14-11 (tree nuts).

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)
Raspberries	Soil-directed + foliar/ 2264–2443	0	0.296	0.686
Blackberries	Soil-directed + foliar/ 2186–2253	0	0.387	0.396
Strawberries	Soil drench + drip irrigation/ 1122	27	0.39	0.39
	Pre- or post-transplant + foliar/ 1122–1683	28	0.42	0.83
	Drip irrigation/ 1683	0	0.09	0.99
	Foliar or drench broadcast/ 1683	0–3	0.85	7.4

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)
Almonds	Soil-directed broadcast/ 13452	28–29	<0.05	0.20
Pecans	Soil-directed/ 6668–6749	56–70	<0.05	0.13

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 metalaxyl. Residues of metalaxyl 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.