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Proposed Maximum Residue Limit

PMRL2021-10

# Glyphosate

*(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 glyphosate on various commodities to permit the import and sale of foods containing such residues as well as to update the food commodity descriptors to remove historical terminology of currently established MRLs on processed cereal food commodities.

Glyphosate is a herbicide 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 glyphosate 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 glyphosate 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 glyphosate, are as follows.

**Table 1 Proposed maximum residue limits for glyphosate**

Common name	Residue definition	MRL (ppm) <sup>1</sup>	Food commodity
Glyphosate	N-(phosphonomethyl)glycine, including the metabolite aminomethylphosphonic acid (expressed in parent equivalents)	35 <sup>2</sup>	Groats/rolled oats, oat bran
		15 <sup>2,3,5</sup>	Barley bran, dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry cowpea seeds, dry guar seeds, dry kidney beans, dry lablab beans, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry tepary beans, dry urd beans, grain lupin, pearled barley, wheat bran, wheat germ
		10 <sup>4,5</sup>	Dry field peas, dry lentils, dry pigeon peas
		1.0	Tree nuts (crop group 14-11)

<sup>1</sup> ppm = parts per million

<sup>2</sup> The new MRLs of 35 ppm in/on groats/rolled oats and oat bran, as well as 15 ppm in/on barley bran, pearled barley, wheat bran and wheat germ, will replace the currently established MRLs in/on “oat, milling fractions (except flour)”, “barley milling fractions (except flour)” and “wheat milling fractions (except flour)”. Flour will no longer be explicitly mentioned in the database, as it is covered by the MRLs in/on the respective raw agricultural commodities (RACs) of oats, barley and wheat.

<sup>3</sup> Given that a new MRL of 15 ppm is recommended for all commodities of crop subgroup 6C, except soybeans, dry lentils, dry field peas and dry pigeon peas, the historical term “beans” originally covered at 4.0 ppm will be removed from the database. It is noted that the following commodities are considered as beans: grain lupin, dry blackeyed peas, dry catjang seeds, dry cowpea seeds and dry southern peas. Chickpeas can be considered as beans or peas, but the MRL is set at the highest value between the two, in this case beans at 15 ppm.

<sup>4</sup> Given that a new MRL of 10 ppm is recommended for dry field peas and dry pigeon peas, the historical term “peas” covered at 5.0 ppm will be removed from the database. It is noted that lentils are considered as peas, and therefore, the MRL of 4.0 ppm will be replaced by the value of 10 ppm.

<sup>5</sup> Residues of glyphosate in/on succulent peas and beans of crop subgroups 6A and 6B will be covered under 0.1 ppm as per Part B, Division 15, Subsection B.15.002(1) of the FDAR.

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

Table 2 compares the MRLs proposed for glyphosate in Canada with corresponding American tolerances and Codex MRLs.<sup>1</sup> 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**

Food commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Groats/rolled oats, oat bran	35	30 (barley, bran; grain, cereal, group 15 except field corn, popcorn, rice, sweet corn, and wild rice)	30 (cereal grains)
Barley bran, pearled barley, wheat germ	15		20 (wheat bran, unprocessed)
Wheat bran			
Dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry cowpea seeds, dry guar seeds, dry kidney beans, dry lablab beans, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry tepary beans, dry urd beans, grain lupin	15	5.0 (vegetable, legume, group 6, except soybean and dry pea)	2 (beans, dry) <sup>1</sup>
Dry field peas, dry lentils, dry pigeon peas	10	8.0 (pea, dry)	5 (lentil, dry; peas, dry) <sup>2</sup>
Tree nuts (crop group 14-11)	1.0	1.0 (nut, tree, group 14)	Not established

<sup>1</sup> As per the [Summary Report](#) issued on May 2019, the Joint FAO/WHO Meeting on Pesticides Residues is recommending to withdraw the current MRL of 2.0 ppm for glyphosate in/on dry beans and to establish an MRL of 15 ppm in/on the dry bean subgroup, except soybeans.

<sup>2</sup> As per the [Summary Report](#) issued on May 2019, the Joint FAO/WHO Meeting on Pesticides Residues is recommending to withdraw the current MRL of 5.0 ppm for glyphosate in/on dry peas and dry lentils, and to establish an MRL of 10 ppm in/on the dry pea subgroup.

<sup>1</sup> 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 glyphosate 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 glyphosate in dry peas, dry lentils and dry beans, as well as in almonds, pecans and walnuts, were submitted to support the maximum residue limits in/on these imported food commodities. Previously reviewed residue data from field trials conducted in/on these crops were also re-assessed in the framework of this petition.

### Maximum residue limits

The recommendation for maximum residue limits (MRLs) for glyphosate was based upon residues observed in crop commodities treated according to label directions in the exporting country, and the guidance provided in the [OECD MRL Calculator](#). Table A1 summarizes the residue data used to calculate the proposed MRLs for imported dry peas, dry beans and tree nuts from crop group 14-11.

**Table A1 Summary of field trial data used to support the MRLs**

Commodity	Application method/Total application rate (kg a.e./ha) <sup>1</sup>	Preharvest interval (days)	Lowest average field trial residues <sup>2,3</sup> (ppm)	Highest average field trial residues <sup>2,3</sup> (ppm)
Dry pea seed	Soil preplant + broadcast foliar preharvest / 2.48–5.05	7	0.77	4.76
Dry lentil seed	Soil preplant + broadcast foliar preharvest / 6.68–6.97	6–7	0.42	6.34
Dry bean seed	Soil preplant + broadcast foliar preharvest / 4.98–5.96	7	<0.10	6.13
Almond nutmeat	Soil-directed preharvest / 8.9	3	<0.10	0.63
Pecan nutmeat			<0.10	0.20
Walnut nutmeat			<0.11	0.74

<sup>1</sup> kg a.e./ha = kilograms of glyphosate acid equivalents per hectare

<sup>2</sup> Sum of glyphosate and the metabolite AMPA (aminomethylphosphonic acid; expressed in parent equivalents).

<sup>3</sup> The limit of quantitation (LOQ) of the method was 0.05 ppm for each analyte, in other words, glyphosate and AMPA.

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of glyphosate and AMPA (expressed in parent equivalents). Residues of glyphosate and AMPA 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.