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Proposed Maximum Residue Limit

PMRL2017-21

Flonicamid

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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 BeleafTM 50SG Insecticide, containing technical grade flonicamid, is acceptable. The specific uses approved in Canada are detailed on the label of BeleafTM 50SG Insecticide, *Pest Control Products Act* Registration Number 29796.

The evaluation of this flonicamid 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 flonicamid 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 Canada's Notification Authority and Enquiry Point.

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

Table 1 Proposed Maximum Residue Limits for Flonicamid

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
Flonicamid	N-(cyanomethyl)-4-(trifluoromethyl)-3-pyridinecarboxamide, including the metabolites 4-trifluoromethylnicotinic acid, N-(4-trifluoromethylnicotinoyl) glycine and 4-trifluoromethylnicotinamide	7.0	Succulent shelled pea and bean (crop subgroup 6B)
		4.0	Edible podded legume vegetables (crop subgroup 6A)

Common Name	Residue Definition	MRL (ppm) ¹	Food Commodity
		3.0	Pepper/eggplant (crop subgroup 8-09B) ² ; Dry beans, grain lupin, dry kidney beans, dry lima beans, dry navy beans, dry pink beans, dry pinto beans, dry tepary beans, dry adzuki beans, dry blackeyed peas, dry catjang seeds, dry cowpea seeds, dry moth beans, dry mung beans, dry rice beans, dry southern peas, dry urd beans, dry broad beans, dry chickpeas, dry guar seeds, and dry lablab beans

¹ ppm = parts per million

² The MRL of 3.0 ppm is proposed to replace the currently established MRLs of 0.4 ppm for all commodities in crop subgroup 8-09B.

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 crop field trials used to generate residue chemistry data.

Table 2 compares the MRLs proposed for flonicamid in Canada with corresponding American

tolerances and Codex MRLs.¹ Flonicamid is an active ingredient that is concurrently being registered in Canada and the United States for use on various commodities. The MRLs proposed for flonicamid in Canada are the same as corresponding tolerances to be promulgated in the United States. Once established, the American tolerances for flonicamid will be 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 Residues in Food and Feed website, 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)
Succulent shelled pea and bean (crop subgroup 6B)	7.0	Not Established	Not Established
Edible podded legume vegetables (crop subgroup 6A)	4.0	Not Established	Not Established
Pepper/Eggplant (crop subgroup 8-09B)	3.0	0.4	0.4 (Fruiting vegetables other than cucurbits)
Dry beans, grain lupin, dry kidney beans, dry lima beans, dry navy beans, dry pink beans, dry pinto beans, dry tepary beans, dry adzuki beans, dry blackeyed peas, dry catjang seeds, dry cowpea seeds, dry moth beans, dry mung beans, dry rice beans, dry southern peas, dry urd beans, dry broad beans, dry chickpeas, dry guar seeds, and dry lablab beans	3.0	Not Established	Not Established

Next Steps

¹ The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

The PMRA invites the public to submit written comments on the proposed MRLs for flonicamid 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 flonicamid in greenhouse peppers, snap beans, edible podded peas, lima beans, succulent shelled peas, and dry beans were submitted to support the domestic use of BeleafTM 50SG Insecticide.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for flonicamid 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.

Table A1 Summary of Field Trial 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)
Lima beans	Foliar/ 296-308	7-8	<0.124	<1.043
Succulent shelled peas	Foliar/ 295-304	6-8	<0.554	3.419
Snap beans	Foliar/ 296-308	7-15	<0.738	<1.512
Edible podded peas	Foliar/ 297-309	6-7	<0.453	<2.313
Dry shelled beans	Foliar/ 299-309	6-8	<0.620	<2.012
Greenhouse bell peppers	Foliar/ 303-313	0-6	<0.351	<0.678
Greenhouse non-bell peppers	Foliar/ 301-313	0	<0.273	<1.476

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