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Proposed Maximum Residue Limit

PMRL2021-30

Flonicamid

(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 leafy vegetables, *Brassica* head and stem vegetables, and leaf petiole vegetables to the product label of Beleaf 50SG Insecticide, containing technical grade flonicamid, is acceptable. The specific uses approved in Canada are detailed on the label of Beleaf 50SG Insecticide, *Pest Control Products Act* Registration Number 29796.

The evaluation of these flonicamid applications 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). 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 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	<i>N</i> -(cyanomethyl)-4-(trifluoromethyl)-3-pyridinecarboxamide, including the metabolites 4-trifluoromethylnicotinic acid, 4-trifluoromethylnicotinamide and	16	Abyssinian cabbages, mizuna, seakale cabbages, Hanover salad, wild rocket, Shepherd’s purse, and watercress

Common name	Residue definition	MRL (ppm) ¹	Food commodity
	N-(4-trifluoromethylnicotinoyl)glycine, expressed as parent equivalents	4.0	Bitter lettuce, blackjack, cat's whiskers, cham-chwi, cham-na-mul, Chinese amaranth, Chinese violets, chipilin, common plantains, cosmos, dang-gwi, dol-nam-mul, ebolo, fuki, English primrose, escaroles, fameflowers, feather cockscombs, fresh cilantro leaves, fresh dillweed leaves, good King Henry, huauzontles, Indian asters, jute leaves, Malabar spinach, New Zealand spinach, tree spinach, tanier spinach, udo, and zuiki

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

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 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)
Bitter lettuce, blackjack, cat's whiskers, cham-chwi, cham-na-mul, Chinese amaranth, Chinese violets, chipilin, common plantains, cosmos, dang-gwi, dolnam-mul, ebolo, fuki, English primrose, escaroles, fameflowers, feather cockscombs, fresh cilantro leaves, fresh dillweed leaves, good King Henry, huazontles, Indian asters, jute leaves, Malabar spinach, New Zealand spinach, tree spinach, tanier spinach, udo, and zuiki	4.0	8 (Leafy greens subgroup 4-16A, except spinach)	Not Established

Next steps

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

Previously reviewed residue data from field trials conducted in/on lettuce, celery, and mustard greens were reassessed in the framework of this petition.

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 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)
Head lettuce with wrapper leaves	Foliar/299–304	0	0.463	0.674
Leaf lettuce	Foliar/ 299–306	0	2.086	3.185
Celery	Foliar/ 299–307	0	0.406	0.513
Mustard greens	Foliar/ 293–305	0	<2.269	9.855

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. Residues of flonicamid 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.