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Proposed Maximum Residue Limit

PMRL2021-02

# Flupyradifurone

*(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 flupyradifurone on various commodities to permit the import and sale of foods containing such residues.

Flupyradifurone is an insecticide 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 flupyradifurone 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 flupyradifurone 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 be added to the MRLs already established for flupyradifurone, are as follows.

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

Common name	Residue definition	MRL (ppm) <sup>1</sup>	Food commodity
Flupyradifurone	4-[[[(6-chloro-3-pyridinyl)methyl](2,2-difluoroethyl)amino]-2(5H)-furanone	9.0	Celtuce, fresh Florence fennel leaves and stalks
		8.0	Tropical and subtropical palm fruits, edible peel (crop subgroup 23C)
		6.0	Kohlrabies
		3.0	Sesame seeds
		0.70	Sunflowers (crop subgroup 20B) (revised), Texas prickly pear pads
		0.30	Pineapples
		0.01	Stalk and stem vegetables (crop subgroup 22A, except celtuce, <sup>2</sup> fresh Florence fennel leaves and stalks, <sup>2</sup> kohlrabies, <sup>3</sup> prickly pear pads, <sup>4</sup> Texas prickly pear pads <sup>5</sup> )

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

<sup>2</sup> Celtuce and fresh Florence fennel leaves and stalks are excluded from this MRL action as a separate MRL of 9.0 ppm is proposed for these commodities.

<sup>3</sup> Kohlrabies is excluded from this MRL action as a separate MRL of 6.0 ppm is proposed for the commodity.

- <sup>4</sup> Prickly pear pads are excluded from this MRL action as an MRL of 0.70 ppm is already established for the commodity.
- <sup>5</sup> Texas prickly pear pads are excluded from this MRL action as a separate MRL of 0.70 ppm is proposed for the commodity.

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**

The MRLs proposed for flupyradifurone in Canada are the same as corresponding American tolerances. American tolerances are listed in the [Electronic Code of Federal Regulations](#), 40 CFR Part 180, by pesticide. Currently, there are no Codex MRLs<sup>1</sup> listed for flupyradifurone in or on any of the petitioned commodities on the Codex Alimentarius [Pesticide Index](#) webpage.

### **Next steps**

The PMRA invites the public to submit written comments on the proposed MRLs for flupyradifurone 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](#).

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<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.

## Appendix I

### Summary of field trial data used to support the proposed maximum residue limits

Residue data for flupyradifurone in sunflowers, asparagus, dates, pineapples, and sesame seeds were submitted to support the maximum residue limits on imported crops. Previously reviewed residue data from field trials conducted in/on celery, cauliflower, broccoli, and cabbage were also reassessed in the framework of this petition. In addition, processing studies in treated sunflowers, pineapples, and sesame seeds were reviewed to determine the potential for concentration of residues of flupyradifurone into processed commodities.

### Maximum residue limits

The recommendation for maximum residue limits (MRLs) for flupyradifurone was based upon the 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 crops.

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

Commodity	Application method/ Total application rate (g a.i./ha) <sup>1</sup>	Preharvest interval (days)	Lowest average field trial residues (ppm)	Highest average field trial residues (ppm)	Experimental processing factor
Sunflower seeds	Foliar/406–435	7–15	0.014	0.444	Meal: 1.2×; Oil: <0.1×
Asparagus	Foliar/408–424	123–290	<0.01	<0.01	Not required
Prickly pear pads	Foliar/369–376	20–21	0.204	0.254	Not required
Dates	Foliar/409–425	13–15	1.74	3.23	Not required
Celery	Foliar/402–415	1	0.221	5.985	Not required
Cauliflower	Foliar/401–415	1–3	0.013	2.425	Not required
Broccoli			0.370	1.925	
Cabbage			0.077	0.817	
Pineapples	Foliar/411–425	0	0.046	0.155	No concentration in processed fractions
Sesame seeds	Foliar/400–415	14–19	0.10	1.08	No concentration in processed fractions

<sup>1</sup> 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 flupyradifurone. Residues of flupyradifurone 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.