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Proposed Maximum Residue Limit

PMRL2022-22

Pyrifluquinazon

(publié aussi en français)

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Purpose of consultation

Maximum residue limits (MRLs)¹ are being proposed for the pesticide pyrifluquinazon as part of the following applications for Canadian use under submission numbers 2019-5828 and 2019-5942, and submission number 2019-5878 for imported commodities.

Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing acceptability of the uses requested under the above-noted applications to register the technical grade pyrifluquinazon and the end-use product Pyrifluquinazon 20SC for new uses on greenhouse lettuce, cucumbers, eggplants, peppers and tomatoes in Canada to control aphids and whiteflies.

The evaluation of these pyrifluquinazon applications indicated that the end-use product has value, and the human health and environmental risks associated with their proposed uses are acceptable. Details regarding these applications can be found in Proposed Registration Decision PRD2022-15, *Pyrifluquinazon*, posted to the Canada.ca website on 30 November 2022. Dietary risks from the consumption of foods listed in Table 1 were shown to be acceptable when pyrifluquinazon is used according to the supported label directions. Therefore, foods containing residues resulting from this use are safe to eat, and MRLs are being proposed as a result of this assessment.

In addition, Health Canada is proposing acceptability of the request to specify MRLs for pyrifluquinazon on imported tuberous and corm vegetables, leafy vegetables, *Brassica* vegetables, fruiting vegetables, cucurbit vegetables, pome fruits, stone fruits, citrus fruits, small fruits vine climbing (except fuzzy kiwifruit), tree nuts, leaf petiole vegetables, cotton and tea for control of various insects, in order to permit the import and sale of food that could contain such residues. Health Canada has determined the quantity of residues that may remain in or on the imported commodities when pyrifluquinazon is used according to the label directions of the exporting country, and that such residues will not be a concern to human health. Details regarding the proposed MRLs on imported commodities can also be found in PRD2022-15, Section 3.6.

Dietary health assessment

In assessing the risk of a pesticide, Health Canada combines information on pesticide toxicity with information on the degree and duration of dietary exposure to the pesticide residue from food. The risk assessment process involves four distinct steps:

¹ A maximum residue limit (MRL) is the maximum amount of residue that may remain in or on food when a pesticide is used according to label directions.

- 1) Identifying the toxicology hazards posed by the pesticide;
- 2) Determining the “acceptable dietary level” for Canadians (including all vulnerable populations), which is protective of adverse health effects;
- 3) Estimating human dietary exposure to the pesticide from all applicable sources (domestic and imported commodities); and
- 4) Characterizing health risk by comparing the estimated human dietary exposure to the acceptable dietary level.

Before registering a pesticide for food use in Canada, Health Canada must determine the quantity of residues that could 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 (Steps 3 and 4 above). If estimated human exposure is less than or equal to the acceptable level (developed in Step 2 above), Health Canada concludes that consuming residues resulting from use according to approved label directions is not a health concern. The proposed MRL is then subject to consultation to legally specify it as an MRL. An MRL applies to the identified raw agricultural food commodity, as well as to any processed food product that contains it, except for certain instances where different MRLs are specified for the raw agricultural commodity and its processed product(s).

Consultation on the proposed MRLs for pyriproxyfen is being conducted via this document and PRD2022-15. Health Canada invites the public to submit written comments on the proposed MRLs for pyriproxyfen in accordance with the process outlined in the Next steps Section of this document, and with the process outlined in PRD2022-15.

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.

Proposed MRLs

The proposed MRLs for pyriproxyfen are summarized in Table 1.

Table 1 Proposed maximum residue limits for pyrifluquinazon

Common name	Residue definition	MRL (ppm) ¹	Food commodity
Pyrifluquinazon	1-acetyl-3,4-dihydro-3-[(3-pyridinylmethyl)amino]-6-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-2(1 <i>H</i>)-quinazolinone	30	Citrus oil
		20	Tea (dried leaves)
		5.0	Leafy vegetables (crop group 4-13)
		1.5	Leaf petioles vegetables (crop subgroup 22B)
		0.7	Citrus fruits (crop group 10) (revised)
		0.6	<i>Brassica</i> head and stem vegetables (crop group 5-13)
		0.3	Fruiting vegetables (crop group 8-09); cherries (crop subgroup 12-09A); small fruits vine climbing, except fuzzy kiwifruit (crop subgroup 13-07F); undelinted cotton seeds
		0.07	Cucurbit vegetables (crop group 9); pome fruits (crop group 11-09)
		0.04	Peaches (crop subgroup 12-09B)
0.02	Tuberous and corm vegetables (crop subgroup 1C); plums (crop subgroup 12-09C); tree nuts (crop group 14-11)		

¹ ppm = parts per million

The commodities included in the listed crop groups/subgroups can be found on the Residue Chemistry Crop Groups webpage in the Pesticides section of Canada.ca.

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 pyriproxyfen in Canada are the same as corresponding American tolerances as listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. Currently, there are no Codex MRLs² listed for pyriproxyfen in or on any commodity on the Codex Alimentarius Pesticide Index webpage.

Next steps

Health Canada invites the public to submit written comments on the proposed MRLs for pyriproxyfen 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). Health Canada will consider all comments received and a science-based approach will be applied in 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.

² The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.