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Proposed Maximum Residue Limit

PMRL2025-11

# Chlorantraniliprole

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## Purpose of consultation

Maximum residue limits (MRLs)<sup>1</sup> for **imported** commodities are being proposed for the pesticide chlorantraniliprole as part of the following application, under submission number 2023-0165, in order to permit the import and sale of food in Canada that could contain chlorantraniliprole residues. This import MRL proposal does not result in a change of the current approved conditions of use in Canada.

Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing acceptability of the request to specify MRLs for chlorantraniliprole on imported commodities of avocado, oil palm fruits and tea, to control and/or suppress various insect pests.

Chlorantraniliprole is an insecticide currently registered in Canada for use on various commodities.

Health Canada has determined the quantity of residues that may remain in or on the imported commodities when chlorantraniliprole is used according to the label directions of the exporting country, and that such residues will not be a concern to human health. Therefore, the foods containing residues resulting from this use are safe to eat, and MRLs are being proposed as a result of this assessment. A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

## 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) 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

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<sup>1</sup> 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.

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 chlorantraniliprole on imported commodities is being conducted via this document. Health Canada invites the public to submit written comments on the proposed MRLs for chlorantraniliprole in accordance with the process outlined in the How to get involved section of this document.

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.

## Proposed MRLs

The proposed MRLs, to be added to the MRLs already established for chlorantraniliprole, are summarized in Table 1.

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

Common name	Residue definition	MRL (ppm) <sup>1</sup>	Food commodity
Chlorantraniliprole	3-bromo- <i>N</i> -[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1 <i>H</i> -pyrazole-5-carboxamide	80	Tea (dried leaves)
		2.0	Palm oil
		0.8	Oil palm fruits
		0.3	Avocados

<sup>1</sup> 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 geographical locations of the crop field trials used to generate residue chemistry data.

Table 2 compares the MRLs proposed for chlorantraniliprole in Canada with corresponding tolerances in the United States (U.S.) and Codex MRLs<sup>2</sup>. U.S. 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. The MRLs proposed for chlorantraniliprole in Canada are the same as the corresponding Codex MRLs.

**Table 2 Comparison of Proposed Canadian MRLs, U.S. tolerances and Codex MRLs**

<b>Food commodity</b>	<b>Proposed Canadian MRL (ppm)</b>	<b>Established U.S. tolerance (ppm)</b>	<b>Established Codex MRL (ppm)</b>
Tea (dried leaves)	80	50.0 (tea, dried)	80 (tea, green, black (black, fermented and dried))
Palm oil	2.0	1.5	2 (palm kernel oil, crude)
Oil palm fruits	0.8	Not established	0.8 (palm fruit (African oil palm))
Avocados	0.3	4.0	0.3

## How to get involved

Health Canada invites the public to submit written comments on the proposed MRLs for chlorantraniliprole up to 75 days from the date of publication of this document (by 5 October 2025). Please forward your comments to Publications. 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 response to comments document found in Pesticides and pest management consultations. 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>2</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 chlorantraniliprole were submitted to support the maximum residue limits on imported avocado, palm fruits and tea. In addition, processing studies in treated palm fruits and tea were reviewed to determine the potential for concentration of residues of chlorantraniliprole in processed commodities.

### Dietary risk assessment results

Studies in laboratory animals showed no acute health effects relative to dietary exposure. Consequently, a single dose of chlorantraniliprole is not likely to cause acute health effects in the general population (including infants and children).

Chronic dietary (food plus drinking water) intake estimates indicated that the general population and all population subgroups are exposed to less than 8% of the acceptable daily intake, and therefore there are no health concerns.

### Maximum residue limits

The recommendation for maximum residue limits (MRLs) for chlorantraniliprole on imported commodities 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 for chlorantraniliprole used to calculate the proposed MRLs for imported avocado, palm fruits and tea.

**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
Avocados	Foliar / 223–226	1, 7	0.043	0.155	Not applicable
Oil palm fruits	Foliar / 61–62	1, 19	0.18 (min)	0.38 (max)	Palm oil: 2.5×
Tea (dried leaves)	Foliar / 150–206	3	18.9	31.6	Not applicable

<sup>1</sup> g a.i./ha = grams of active ingredient per hectare

Following the review of all available data, the MRLs proposed in Table 1 are recommended, in order to cover residues of chlorantraniliprole. Dietary risks from exposure to residues of chlorantraniliprole in these imported crop commodities at the proposed MRLs were shown to be acceptable for the general population and all subpopulations, including infants, children, adults and seniors. Thus, the imported foods that contain residues as listed in Table 1 are considered safe to eat.

## References

PMRA#	Citation
3471681	2017, Determination of residues of chlorantraniliprole after two applications of Altacor 35 WG in oil palm trees at 4 sites in Malaysia in 2015, DACO: 7.4.1,7.4.5
3426297	2021, Crop field trial on Japanese Green Tea with SAMCOR Flowable 10, DACO: 171 - 4a,171 - 4c,171 - 4m,171-4a-4b,171-4c-4d,7.2,7.2.1,7.2.2,7.2.3A,7.3,7.4,7.4.1,7.4.2,860.1300,860.1340,860.1360,IIA 4.2.6,IIIA 5.3.1,b,d
3426298	2021, Crop field trial on Japanese Green Tea with SAMCOR Flowable 10, DACO: 171 - 4a,171 - 4c,171 - 4m,171-4a-4b,171-4c-4d,7.2,7.2.1,7.2.2,7.2.3A,7.3,7.4,7.4.1,7.4.2,860.1300,860.1340,860.1360,IIA 4.2.6,IIIA 5.3.1,b,d
3426295	2021, Magnitude and Decline of Chlorantraniliprole (E2Y45) Residues in Avocados following two Foliar applications of Chlorantraniliprole 35WG, DACO: 171 - 4a,171 - 4c,171 - 4m,171-4a-4b,171-4c-4d,7.2,7.2.1,7.2.2,7.2.3A,7.3,7.4,7.4.1,7.4.2,860.1300,860.1340,860.1360,IIA 4.2.6,IIIA 5.3.1,b,d