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Proposed Maximum Residue Limit

PMRL2022-13

Flazasulfuron

(publié aussi en français)

6 June 2022

This document is published by the Health Canada Pest Management Regulatory Agency. For further information, please contact:

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ISSN: 1925-0835 (print)
1925-0843 (online)

Catalogue number: H113-24/2022-13E (print version)
H113-24/2022-13E-PDF (PDF version)

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Purpose of consultation

Maximum residue limits (MRLs)¹ are being proposed for the pesticide flazasulfuron, as part of the following applications for Canadian use, under submission numbers 2020-2141 and 2020-2142.

Under the authority of the [Pest Control Products Act](#), Health Canada's Pest Management Regulatory Agency (PMRA) is proposing acceptability of the requested applications to add the new commodity of lowbush blueberries to the product labels of Flazasulfuron 25WG and Chikara 25WG, containing technical grade flazasulfuron, to control or suppress certain weeds. The specific uses approved in Canada are detailed on these product labels, *Pest Control Products Act* Registration Numbers [32910](#) and [33130](#), respectively. PMRA is also proposing acceptability to set an MRL on grapes, for which the use was previously registered under submissions 2015-3154 and 2015-3155, but the MRL was not specified.

The evaluation of these flazasulfuron applications indicated that the end-use products have value, and the human health and environmental risks associated with the new uses are acceptable. Dietary risks from the consumption of foods listed in Table 1 were shown to be acceptable when flazasulfuron 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. 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 human 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

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.

instances where different MRLs are specified for the raw agricultural commodity and its processed product(s).

Consultation on the proposed MRLs for flazasulfuron is being conducted via this document. Health Canada invites the public to submit written comments on the proposed MRLs for flazasulfuron in accordance with the process outlined in the Next Steps 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 are summarized in Table 1.

Table 1 Proposed maximum residue limits for flazasulfuron

Common name	Residue definition	MRL (ppm) ¹	Food commodity
Flazasulfuron	<i>N</i> -[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-3-(trifluoromethyl)-2-pyridinesulfonamide	0.01	Grapes, lowbush blueberries

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

Table 2 compares the MRLs proposed for flazasulfuron in Canada with corresponding American tolerances and Codex MRLs.² For flazasulfuron, the MRL proposed for grapes in Canada is the same as the corresponding American tolerance as listed in the [Electronic Code of Federal Regulations](#), 40 CFR Part 180, by pesticide. Currently, there is no American tolerance for flazasulfuron in or on lowbush blueberries and there are no Codex MRLs listed for flazasulfuron in or on any commodity on the Codex Alimentarius [Pesticide Index](#) webpage.

² 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 proposed Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Grapes	0.01	0.01	Not Established
Lowbush blueberries	0.01	Not Established	Not Established

Next steps

Health Canada invites the public to submit written comments on the proposed MRLs for flazasulfuron 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](#).

Appendix I

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

To support the use of flazasulfuron for pre-emergence or postemergence control/suppression of weeds in dormant grapes and lowbush blueberries, metabolism studies on grapes and tomatoes; magnitude of the residue studies in grapes, olives, citrus fruits, tree nuts, and sugarcane; and environmental fate data for flazasulfuron were assessed.

Dietary risk assessment results

Acute dietary (food plus drinking water) intake estimates indicated that the general population and all population subgroups are exposed to less than 4% of the acute reference dose, and therefore are not a health concern.

Chronic dietary (food plus drinking water) intake estimates indicated that the general population and all population subgroups are exposed to less than 64% of the acceptable daily intake, and therefore are not a health concern.

Maximum residue limits

The recommendation for maximum residue limits (MRLs) for flazasulfuron was based upon the submitted field trial data, as summarized in Table A1.

Table A1 Summary of field trial and processing 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)	Experimental processing factor
Grapes	Soil application/ 166–177	74-77	<0.01	<0.01	No quantifiable residues observed at exaggerated rates
Oranges	Soil application/ 172–178	1	<0.01	<0.01	
Grapefruits			<0.01	<0.01	
Lemons			<0.01	<0.01	
Olives	Soil application/ 173–178	20	<0.01	<0.01	
Sugarcane cane	Soil application/ 170–184	179-180	<0.01	<0.01	
Almond nuts	Soil application/ 106–110	123-155	<0.01	<0.01	Not applicable
Pecan nuts	Soil application/ 52–54	154-272	<0.01	<0.01	

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 flazasulfuron. Dietary risks from exposure to residues of flazasulfuron in these 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 foods that contain residues as listed in Table 1 are considered safe to eat.

References

PMRA#	Citation
2551257	2009, Magnitude of Residues of Flazasulfuron and DTPU on Grapes - USA in 2008, DACO: 7.2.1, 7.4.1, 7.4.2.
3126498	2020, Flazasulfuron 25WG Herbicide (flazasulfuron) for weed control in Lowbush Blueberries, DACO: 7.4
3126499	2015, Magnitude of Residues of Flazasulfuron on Olives - USA in 2014, DACO: 7.4,7.4.1
3126500	2009, Magnitude of Residues of Flazasulfuron and DTPU on Citrus - USA in 2008, DACO: 7.4,7.4.1
3126501	2009, Magnitude of Residues of Flazasulfuron on Sugarcane - USA in 2008, DACO: 7.4,7.4.1
3126502	2013, Magnitude of Residues of Flazasulfuron on Almonds & Pecans - USA in 2011, DACO: 7.4,7.4.1