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Proposed Maximum Residue Limit

PMRL2018-58

# Spiromesifen

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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 caneberries and cucurbit vegetables to the product label of Oberon Flowable Insecticide-Miticide, containing technical grade spiromesifen, is acceptable. The specific uses approved in Canada are detailed on the label of Oberon Flowable Insecticide-Miticide, Pest Control Products Act Registration Number 28905.

The evaluation of these spiromesifen 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 spiromesifen 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 replace or be added to the MRLs already established for spiromesifen, are as follows.

**Table 1 Proposed Maximum Residue Limits for Spiromesifen**

Common Name	Residue Definition	MRL (ppm) <sup>1</sup>	Food Commodity
Spiromesifen	2-oxo-3-(2,4,6-trimethylphenyl)-1-oxaspiro[4.4]non-3-en-4-yl 3,3-dimethylbutanoate, including the metabolite 4-hydroxy-3-(2,4,6-trimethylphenyl)-1-oxaspiro[4.4]non-3-en-2-one	5.0	Caneberries (crop subgroup 13-07A)
		0.3	Cucurbit vegetables (crop group 9) <sup>2</sup>

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

<sup>2</sup> The MRL of 0.3 ppm is proposed to replace the currently established MRL of 0.2 ppm in/on cucumbers and 0.1 ppm in/on cucurbit vegetables, except cucumbers.

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

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

**Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)**

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Caneberries (crop subgroup 13-07A)	5.0	Not established	Not established
Cucurbit vegetables (crop group 9)	0.3	0.1	Not established

### Next Steps

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

<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 spiromesifen in raspberries, cantaloupe, cucumbers and summer squash were submitted to support the domestic use of Oberon Flowable Insecticide-Miticide on canberries (crop subgroup 13-07A) and cucurbit vegetables (crop group 9).

#### Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for spiromesifen 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 for canberries (crop subgroup 13-07A) and cucurbit vegetables (crop group 9).

**Table A1 Summary of Field Trial 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)
Raspberries	Foliar directed application/ 830-856	2-4	0.93	2.19
Cantaloupes	Foliar broadcast or directed application/ 439-453	1	<0.02	0.156
Cucumbers	Foliar broadcast or directed application/ 444-457	1	<0.03	0.165
Summer squash	Foliar broadcast or directed application/ 452-464	1	<0.033	0.072

<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 spiromesifen. Residues of spiromesifen 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.