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Proposed Maximum Residue Limit

PMRL2016-67

# Teflubenzuron

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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 teflubenzuron on various commodities to permit the import and sale of foods containing such residues.

Teflubenzuron is an insecticide not currently registered for use in Canada.

The PMRA must determine the quantity of residues that are likely to remain in or on the imported food commodities when teflubenzuron 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 teflubenzuron is being conducted via this document (see Next Steps, the last section of this document). 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 for teflubenzuron are as follows.

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

Common Name	Residue Definition	MRL (ppm) <sup>1</sup>	Food Commodity
Teflubenzuron	<i>N</i> -[[3,5-dichloro-2,4-difluorophenyl)amino]carbonyl]-2,6-difluorobenzamide	70	Citrus oil
		1.5	Mangos, tomatoes
		0.8	Pineapples
		0.6	Green coffee beans, oranges
		0.5	Papayas
		0.3	Sunflower seeds
		0.2	Broccoli
		0.05	Dry soybeans
		0.02	Corn oil (refined)
		0.01	Cauliflowers, field corn

<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**

The MRLs proposed for teflubenzuron in Canada are the same as corresponding American tolerances as listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide, except for citrus oil. Currently, there are no Codex MRLs<sup>1</sup> listed for teflubenzuron in or on the specified commodities on the Codex Alimentarius Pesticide Residues in Food and Feed webpage.

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

<b>Food Commodity</b>	<b>Canadian MRL (ppm)</b>	<b>American Tolerance (ppm)</b>
Citrus oil	70	100

### **Next Steps**

The PMRA invites the public to submit written comments on the proposed MRLs for teflubenzuron 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 teflubenzuron were submitted to support the maximum residue limits on imported broccoli, cauliflowers, dry soybeans, tomatoes, oranges, field corn, sunflower seeds, papayas, pineapples, mangos, and green coffee beans. In addition, processing studies in treated dry soybeans, tomatoes, oranges, field corn, sunflower seeds, and green coffee beans were reviewed to determine the potential for concentration of residues of teflubenzuron into processed commodities.

#### Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for teflubenzuron was based upon the residues observed in crop commodities treated according to label directions at exaggerated rates 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 broccoli, cauliflowers, dry soybeans, tomatoes, oranges, field corn, sunflower seeds, papayas, pineapples, mangos, and green coffee beans.

**Table A1 Summary of Field Trial and Processing Data Used to Support MRLs**

<b>Commodity</b>	<b>Application Method/ Total Application Rate (g a.i./ha)<sup>1</sup></b>	<b>Preharvest Interval (days)</b>	<b>Lowest Average Field Trial Residues (ppm)</b>	<b>Highest Average Field Trial Residues (ppm)</b>	<b>Experimental Processing Factor</b>
<b>Broccoli</b>	Foliar broadcast 74.6-76.6	13-17	<0.01	0.07	-
<b>Cauliflowers</b>	Foliar broadcast 67.2-71.2	20-21	<0.01	<0.01	-
<b>Dry soybeans</b>	Foliar broadcast 98.1-102.2	21	<0.01	0.034	-
<b>Tomatoes</b>	Foliar broadcast 591-870	3	0.07	0.88	-
<b>Oranges</b>	Foliar broadcast 240	21-35	0.02	0.26	Citrus oil (257-fold)
<b>Field corn</b>	Foliar broadcast 90	30	<0.01	<0.01	Corn oil (refined) (1.7-fold)
<b>Sunflower seeds</b>	Foliar broadcast 51	7-15	<0.01	0.126	-
<b>Papayas</b>	Foliar broadcast 225	14	0.041	0.194	-

<b>Commodity</b>	<b>Application Method/ Total Application Rate (g a.i./ha)<sup>1</sup></b>	<b>Preharvest Interval (days)</b>	<b>Lowest Average Field Trial Residues (ppm)</b>	<b>Highest Average Field Trial Residues (ppm)</b>	<b>Experimental Processing Factor</b>
<b>Pineapples</b>	Foliar broadcast 900	7-15	0.037	0.476	-
<b>Mangos</b>	Foliar broadcast 874-949	7-15	0.297	0.506	-
<b>Green coffee beans</b>	Foliar broadcast 150	30-35	<0.01	0.292	-

<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 teflubenzuron. Residues of teflubenzuron 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.