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Proposed Maximum Residue Limit

PMRL2016-44

# Spinosad

*(publié aussi en français)*

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Publications  
Pest Management Regulatory Agency  
Health Canada  
2720 Riverside Drive  
A.L. 6607 D  
Ottawa, Ontario K1A 0K9

Internet: [pmra.publications@hc-sc.gc.ca](mailto:pmra.publications@hc-sc.gc.ca)  
[healthcanada.gc.ca/pmra](http://healthcanada.gc.ca/pmra)  
Facsimile: 613-736-3758  
Information Service:  
1-800-267-6315 or 613-736-3799  
[pmra.infoserv@hc-sc.gc.ca](mailto:pmra.infoserv@hc-sc.gc.ca)

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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 various crops to the product labels of Success Insecticide and Entrust Insecticide, containing technical grade spinosad, is acceptable. The specific uses approved in Canada are detailed on the labels of Success Insecticide and Entrust Insecticide, *Pest Control Products Act* Registration Number 26835 and 30382, respectively.

The evaluation of this spinosad application indicates 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 spinosad 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 the Canada's Notification Authority and Enquiry Point.

The proposed MRLs, to replace or be added to MRLs already established for spinosad, are as follows.

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

Common Name	Residue Definition	MRL (ppm) <sup>1</sup>	Food Commodity
Spinosad	Spinosyn A: (2 <i>R</i> ,3 <i>aS</i> ,5 <i>aR</i> ,5 <i>bS</i> ,9 <i>S</i> ,13 <i>S</i> ,14 <i>R</i> ,16 <i>aS</i> ,16 <i>bR</i> )-2-[(6-deoxy-2,3,4-tri- <i>O</i> -methyl- $\alpha$ -L-mannopyranosyl) oxy]-13-[[[(2 <i>R</i> ,5 <i>S</i> ,6 <i>R</i> )-5-(dimethylamino)-tetrahydro-6-methyl-2 <i>H</i> -pyran-2-yl]oxy]-9-ethyl-2,3,3 <i>a</i> ,5 <i>a</i> ,5 <i>b</i> ,6,9,10,11,12,13,14,16 <i>a</i> ,16 <i>b</i> -tetradecahydro-14-methyl-1 <i>H</i> -asindaceno[3,2- <i>d</i> ]oxacyclododecin-7,15-dione and Spinosyn D:	1.0	Cherries (Crop Subgroup 12-09A) <sup>2</sup>

Common Name	Residue Definition	MRL (ppm) <sup>1</sup>	Food Commodity
	(2 <i>S</i> ,3 <i>aR</i> ,5 <i>aS</i> ,5 <i>bS</i> ,9 <i>S</i> ,13 <i>S</i> ,14 <i>R</i> ,16 <i>aS</i> ,16 <i>bR</i> )-2-[(6-deoxy-2,3,4-tri- <i>O</i> -methyl- $\alpha$ -L-mannopyranosyl) oxy]-13-	0.5	Highbush cranberries
	[[ <i>(2R</i> ,5 <i>S</i> ,6 <i>R</i> )-5-(dimethylamino)-tetrahydro-6-methyl-2 <i>H</i> -pyran-2-yl]oxy]-9-ethyl-2,3,3 <i>a</i> ,5 <i>a</i> ,5 <i>b</i> ,6,9,10,11,12,13,14,16 <i>a</i> ,16 <i>b</i> -tetradecahydro-4,14-dimethyl-1 <i>H</i> -asindaceno[3,2- <i>d</i> ]oxacyclododecin-7,15-dione	0.2	Japanese apricots, jujubes, American plums, Beach plums, Canada plums, cherry plums, Chickasaw plums, Damson plums, Japanese plums, Klamath plums, and sloes

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

<sup>2</sup> This MRL of 1.0 is proposed to replace the MRL of 0.2 ppm currently established for residues of spinosad in/on sweet cherries and tart cherries.

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's 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 spinosad 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. A listing of established Codex MRLs is available on the Codex Alimentarius Pesticide Residues in Food and Feed website, by pesticide or commodity.

<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.

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

<b>Food Commodity</b>	<b>Canadian MRL (ppm)</b>	<b>American Tolerance (ppm)</b>	<b>Codex MRL (ppm)</b>
Cherries (Crop Subgroup 12-09A)	1.0	0.2 (Crop Group 12)	0.2 (Stone Fruit)

### **Next Steps**

The PMRA invites the public to submit written comments on the proposed MRLs for spinosad 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.



## Appendix I

### Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data for spinosad in peaches, cherries, plums and highbush blueberries were re-assessed to support the domestic uses of Success Insecticide and Entrust Insecticide on stone fruits (Crop Group 12-09) and highbush cranberries.

### Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for spinosad 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.

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

Commodity	Application Method/ Total Application Rate (g a.i./ha) <sup>1</sup>	Pre-harvest Interval (days)	Lowest Average Field Trial Residues (ppm)	Highest Average Field Trial Residues (ppm)
Sweet cherries and Tart cherries	Foliar/ 552-581	3	<0.0725	0.617
Plum	Foliar/ 559-577	3	0.020	0.0522
Peach	Foliar/552 - 571	3	<0.040	0.124
Highbush blueberries	Foliar/590 - 602	1	0.035	0.175

<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 spinosad. Residues of spinosad in these commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.