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Proposed Maximum Residue Limit

PMRL2021-07

# Spinosad

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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 a new use on spearmint and peppermint tops 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 Numbers 26835 and 30382, respectively.

The evaluation of this spinosad application indicated that the end-use products have value and the human health and environmental risks associated with the new use 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). 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 be added to the 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	<p>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-<math>\alpha</math>-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>-<i>as</i>-indaceno[3,2-<i>d</i>]oxacyclododecin-7,15-dione</p> <p>and</p> <p>Spinosyn D:            (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>bS</i>)-2-[(6-deoxy-2,3,4-tri-<i>O</i>-methyl-<math>\alpha</math>-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-4,14-dimethyl-1<i>H</i>-<i>as</i>-indaceno[3,2-<i>d</i>]oxacyclododecin-7,15-dione</p>	3.5	Peppermint tops, spearmint tops

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

<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.

## **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

Previously reviewed residue data from field trials conducted in/on peppermint and spearmint tops were reassessed in the framework of this petition. In addition, a processing study on treated mint tops was also reassessed to determine the potential for concentration of residues of spinosad into processed commodities.

### Maximum residue limits

The recommendation for the 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 for peppermint and spearmint tops.

**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
Mint Tops	520–530	6–7	0.258	3.01	Mint oil: 0.02×

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

Following the review of all available data, the MRLs as proposed in Table 1 are recommended to cover residues of spinosad. Residues of spinosad in peppermint and spearmint tops at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.