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Proposed Maximum Residue Limit

PMRL2018-07

# Carboxin

*(publié aussi en français)*

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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 registration of the new end-use products Rancona V 100 Pro FS Fungicide, containing technical grade carboxin and ipconazole, and Rancona Trio Fungicide, containing carboxin, ipconazole and metalaxyl; and the addition of new uses on various commodities to the product label of Rancona V RS Fungicide, containing technical grade carboxin and ipconazole, are acceptable. The specific uses approved in Canada are detailed on the labels of Rancona V 100 Pro FS Fungicide, Rancona Trio Fungicide and Rancona V RS Fungicide, *Pest Control Products Act* Registration Numbers 32667, 32668 and 30217, respectively.

The evaluation of these carboxin applications indicated that the end-use products have 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 carboxin 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.

For the coformulant ipconazole, present in Rancona V 100 Pro FS Fungicide, Rancona V RS Fungicide and Rancona Trio Fungicide, the MRL consultation is being conducted under a separate action.

For the coformulant metalaxyl, present in Rancona Trio Fungicide, the currently established MRLs of 0.2 ppm for wheat and 0.05 ppm for barley, oats, rye and triticale are sufficient to cover residues resulting from the use and are therefore unaffected by this MRL action.

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 carboxin, are as follows.

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

Common Name	Residue Definition	MRL (ppm) <sup>1</sup>	Food Commodity
Carboxin <sup>2</sup>	5,6-dihydro-2-methyl- <i>N</i> -phenyl-1,4-oxathiin-3-carboxamide, including metabolites determined as benzenamine and expressed as parent compound	0.2	Cereal grains (crop group 15)
		0.03	Legume vegetables (crop group 6); mustard seeds (condiment type), mustard seeds (oilseed type)

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

<sup>2</sup> Carboxin is the approved International Organization for Standardization (ISO) common name; however, carbathiin is the common name for this active ingredient found under the guarantee statement in all product labels currently registered in Canada.

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 carboxin 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.

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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.

**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>
Legume vegetables (Crop Group 6)	0.03	0.2 (bean, dry, seed; bean, succulent; soybean, seed)	Not Established

**Next Steps**

The PMRA invites the public to submit written comments on the proposed MRLs for carboxin 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 peas, lentils, succulent beans, dry beans, soybeans, wheat, barley, field corn, sweet corn and canola were reassessed in the framework of this petition.

#### Maximum Residue Limit(s)

The recommendation for maximum residue limits (MRLs) for carboxin 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 legume vegetables (Crop Group 6), cereal grains (Crop Group 15), mustard seeds (condiment type) and mustard seeds (oilseed type).

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

Commodity	Application Method/ Total Application Rate (g a.i./100 kg seed) <sup>1</sup>	Days After Planting (days)	Lowest Average Field Trial Residues (ppm)	Highest Average Field Trial Residues (ppm)	Experimental Processing Factor
Peas	Seed treatment / 49	Harvested at maturity	<LOQ <sup>2</sup>	<LOQ	No quantifiable residues observed at exaggerated rates.
Lentils	Seed treatment / 55		<LOQ	<LOQ	
Succulent beans	Seed treatment / 100 – 200		<LOQ	<LOQ	
Dry beans	Seed treatment / 100 – 200		<LOQ	<LOQ	
Soybeans	Seed treatment / 52 – 185		<LOQ	<LOQ	
Wheat	Seed treatment / 164	103 – 150	<LOQ	<LOQ	No quantifiable residues observed at exaggerated rates.
Barley	Seed treatment / 82 – 164	94 – 150	<LOQ	<LOQ	
Field corn	Seed treatment / 92 – 185	83 – 98	<LOQ	<LOQ	
Sweet corn	Seed treatment / 92 – 185	78 – 177	<LOQ	<LOQ	

<b>Commodity</b>	<b>Application Method/ Total Application Rate (g a.i./100 kg seed)<sup>1</sup></b>	<b>Days After Planting (days)</b>	<b>Lowest Average Field Trial Residues (ppm)</b>	<b>Highest Average Field Trial Residues (ppm)</b>	<b>Experimental Processing Factor</b>
Canola	Seed treatment / 70	Harvested at maturity	0.008	0.029	No quantifiable residues observed at exaggerated rates

<sup>1</sup> g a.i./100 kg seed = grams of active ingredient per 100 kilograms of seed

<sup>2</sup> LOQ = Limit of Quantitation

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of carboxin. Residues of carboxin 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.