



Evaluation Report for Category B, Subcategory 5.0 Application

Application Number: 2020-5848
Application: New Maximum Residue Limits (MRLs) for previous assessed Technical Grade Active Ingredient
Product: Abamectin Technical
Registration Number: 24484
Active ingredient (a.i.): Abamectin
PMRA Document Number: 3285070

Purpose of Application

The purpose of this application was to establish new import MRLs for abamectin in/on tropical and subtropical fruits, small fruits, inedible peel (CSG 24A), carrot, chives (dried leaves), guava, pineapple, sweet corn and tea. In addition, the applicant has requested the revision or extension of currently established Canadian MRLs in/on green onions (CSG 3-07B), fruiting vegetables (CG8-09), citrus fruits (CG 10-R), pome fruits (CG 11-09), stone fruits (CG 12-09), small fruits vine climbing, except fuzzy kiwifruit (CSG 13-07F), low-growing berries (CSG 13-07G), tree nuts (CG 14-11), and papaya.

Chemistry, Environmental and Value Assessments

Chemistry, environmental and value assessments were not required for this application.

Health Assessments

Residue data for abamectin in carrots, sweet corn, pineapples, guavas, papayas, lychees, tea and dried chive leaves were submitted to support the maximum residue limits on these imported commodities. Adequate data have previously been submitted and reviewed to support extrapolating the current MRLs to the revised crop groups/subgroups of CG10-R, CG11-09, CG12-09, CSG13-07F, CSG13-07G, and CG14-11 and aligning the Canadian MRL for CG8-09 with the US tolerance. In addition, processing studies in treated crops were reassessed to determine the potential for concentration of residues of abamectin into processed commodities.

Maximum Residue Limits

The recommendation for maximum residue limits (MRLs) for abamectin was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). MRLs to cover total residues of abamectin in/on crops and processed commodities are proposed as shown in Table 1. Residues in processed commodities not listed in Table 1 are covered under the proposed MRLs for the raw agricultural commodities (RACs).

Table 1A Summary of Reassessed Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs)

Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Total Abamectin Residues ¹ (ppm)		Currently Established MRL (ppm)	Recommended MRL (ppm)
			LAFT	HAFT		
Tomatoes (standard size and cherry tomatoes)	Foliar/66-70	1	0.006	0.041	0.07 (GH tomatoes)	0.07 (CG 8- 09)
Non-bell peppers	Foliar/62-64	7	<0.006	<0.010	0.02 (CG8-09, except tomatoes)	
Bell peppers	Foliar/ 63-66	7	<0.006	<0.012		
Oranges	Foliar/ 51.1 – 54.4	7	<0.004	<0.007	0.02 (CG10)	0.02 (CG10- R)
Grapefruit	Foliar/ 51.1 – 53.4	6 – 7	<0.004	<0.006		
Lemons	Foliar/ 51.5 – 53.1	7	<0.004	<0.008		
Apples	Foliar/54-56	28	<0.004	0.013	0.02 (apples)	0.02 (CG11-09)
Pears	Foliar/54	21	<0.004	0.011	0.02 (pears)	
Sweet cherries	Foliar/ 52.4	21	<0.006	<0.019	0.09 (CG12)	0.09 (CG 12-09)
Tart cherries	Foliar/ 52.4	21	<0.008	0.053		
Peaches	Foliar/ 52.4	21 – 22	<0.004	0.026		
Plums	Foliar/ 53.8	21	<0.004	<0.006		
Grapes	Foliar/41.5-43.7	28	<0.004	<0.008	0.02 (grapes)	0.02 (CSG13- 07F)
Strawberries	Foliar/88	3	0.009	0.027	0.05 (strawberry)	0.05 (CSG13- 07G)
Almonds	Foliar/ 81	21	<0.01	<0.01	0.01 (CG14)	0.01 (CG 14-11)
Pecans	Foliar/ 81	21	<0.01	<0.01		

¹Total Residues of Avermectin B_{1a} + Avermectin B_{1a} 8,9-Z isomer + Avermectin B_{1b}

Table 1B Summary of Newly Submitted Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs)

Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Total Abamectin Residues ¹ (ppm)		Experiment al Processing Factor	Currently Established MRL (ppm)	Recommended MRL (ppm)
			LAFT	HAFT			
Carrot roots	Seed/0.016-0.017 mg a.i./seed	71- 128	<0.006	0.019	Not required	Not established	0.03
Fresh chive leaves	Foliar/63.8-66.1	5-7	<0.004 0	0.0042	2.95 (dried leaves)	Not established	0.02 (Dried chive leaves)
Papayas	Foliar/82.6-91.4	3-5	<0.005 1	0.131	Not required	Not established	0.4
Pineapples	Foliar/52.4-53.2	78- 112	<0.004	<0.004	Not required	Not established	0.015
Guavas	Foliar/81.8-82.9	8	<0.004	0.005	Not required	Not established	0.015
Lychees	Foliar/53.8-56.0	8-13	<0.002	0.0027	Not required	Not established	0.01 (CSG24A)
Sweet corn	Seed + Foliar/56.4- 89.0	6-7	<0.006	<0.006	Not required	Not established	0.01 (sweet corn kernels plus cob with husks removed)
Tea	Foliar/108	7	0.072	0.477	Not required	Not established	1.0 Tea (dried leaves)

LAFT = Lowest Average Field Trial; HAFT = Highest Average Field Trial

¹Total Residues of Avermectin B_{1a} + Avermectin B_{1a} 8,9-Z isomer + Avermectin B_{1b}

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

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to propose MRLs for abamectin as outlined in Table 1.

References

PMRA

Document

Number	Reference
3180636	2017, 110917 Abamectin_Japanese Report and MRL Report_Imp Tol Tea - Confidential Attachment, DACO: 7.4.1
3180637	2013, Abamectin 500 FS (A14006B) and Abamectin SC (A15368D) - Magnitude of the Residues in or on Sweet Corn Resulting from Seed Treatment Followed by Foliar Applications - USA, 2011, DACO: 7.4.1
3180639	2018, Abamectin - Magnitude of the Residue on Carrot (Seed Treatment), DACO: 7.4.1
3180640	2014, Abamectin - Magnitude of the Residue on Guava, DACO: 7.4.1
3180641	2014, Abamectin - Magnitude of the Residue on Lychee, DACO: 7.4.1
3180642	2012, Abamectin - Magnitude of the Residue on Onion (Green), DACO: 7.4.1
3180643	2013, Abamectin - Magnitude of the Residue on Papaya, DACO: 7.4.1
3180644	2009, Abamectin - Magnitude of Residue on Chives, DACO: 7.4.1
3180645	2014, Abamectin - Magnitude of the Residue on Pineapple, DACO: 7.4.1

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