



Evaluation Report for Category B, Subcategory 5.0 Application

Application Number: 2007-7220
Application: New maximum residue limits for a previously assessed technical grade active ingredient.
Product: Actara 25WG Insecticide
Registration Number: 28408
Active ingredients (a.i.): Thiamethoxam
PMRA Document Number: 1891193

Purpose of Application

The purpose of this application is to establish maximum residue limits (MRLs) to cover combined residues of thiamethoxam and the metabolite CGA-322704 in/on imported tropical fruit (avocado, papaya, star apple, black sapote, mango, sapodilla, canistel, mamey sapote); root vegetables (Crop subgroup 1A); raspberry/blackberry/boysenberry (Caneberry; Crop subgroup 13-07A); small fruit vine climbing, except fuzzy kiwifruit (Crop subgroup 13-07F); low growing berry subgroup (Crop subgroup 13-07G); citrus fruit (Crop group 10); stone fruit (Crop group 12); globe artichoke; barley grain; brassica (cole) leafy vegetables (Crop group 5); coffee; cotton, undelinted seed; mint; leaves of root and tuber vegetables (Crop group 2); cucurbit vegetables (Crop group 9); leafy vegetables, except brassica (Crop group 4); and hop, dried cones. In addition, the current MRLs for pome fruits (Crop group 11) and potatoes are being revised to account for different use patterns of U.S. imported commodities.

Health Assessments

To support the establishment of MRLs in/on a variety of crops imported from the U.S., residue data for thiamethoxam were evaluated for avocado, globe artichoke, barley grain, cotton undelinted seed, grapes, hops, mint, caneberry, radish tops, strawberries, carrots, radish roots, sugar beets, leaf lettuce, celery stalks, spinach, head lettuce, broccoli, cabbage, mustard greens, cucumbers, summer squash, cantaloupes, oranges, grapefruits, lemons, cherries, plums, and peaches. Data from supervised residue trials for coffee from Latin America were also evaluated. Residue data for potatoes, pears, and apples reflecting U.S. Good Agricultural Practice (GAP) were reviewed to support revisions to the currently established MRLs for these commodities.

Maximum Residue Limit(s)

Based on the maximum residues observed in crops treated according to U.S. and Latin American (coffee only) label directions, MRLs to cover residues of thiamethoxam and the metabolite CGA-322704 in/on crops will be established as shown in Table 1. Residues of thiamethoxam in processed commodities not listed in Table 1 are covered under established MRLs for the raw agricultural commodities (RACs).

<p>TABLE 1. Summary of Field Trial and Processing Data Used to Establish/Revise Maximum Residue Limit(s) (MRLs)</p>

Commodity	Application Method/Total Application Rate (g a.i./ha)	PHI (days)	Total Residues (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Recommended MRL (ppm)
			Min	Max			
PMRA # 1852290							
Avocado (extended to papaya, star apple, black sapote, mango, sapodilla, canistel, mamey sapote)	Foliar/204-212	0	<0.02	0.31	--	0.02	0.40
PMRA # 1480451							
Globe Artichoke	Foliar/104-107	4	0.09	0.27	--	0.02	0.45
PMRA # 1480512							
Barley, grain	Foliar/136-142	20-24	<0.02	0.22	<u>0.3-fold:</u> pearled barley, bran <u>0.1-fold:</u> flour	0.02	0.30
PMRA # 1480502							
Cotton, undelinted seed	Seed treatment + Foliar/300 g a.i./100 kg seed + 118 g a.i./ha	20-23	<0.02	0.05	--	0.02	0.10
PMRA # 1625286, 1625287							
Coffee	Soil-directed/800	90	<0.01 2	0.04	--	0.02	0.05
PMRA # 1480463							
Hop, dried cones	Soil-directed/133-139	62-66	<0.05	0.08	--	0.02	0.10
PMRA # 1480492							
Mint	Foliar/219-222	6-7	0.26	1.01	<u>0.05-fold:</u> mint oil	0.02	1.5
PMRA # 1625290							

TABLE 1. Summary of Field Trial and Processing Data Used to Establish/Revise Maximum Residue Limit(s) (MRLs)							
Commodity	Application Method/Total Application Rate (g a.i./ha)	PHI (days)	Total Residues (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Recommended MRL (ppm)
			Min	Max			
Potatoes	Seed Piece Treatment/202	90-143	<0.02	0.11	<0.3-fold: chips 1.7-fold: flakes <0.3-fold: wet peel	0.05 <u>Chips</u> 0.08	0.15 (to cover RAC and all processed commodities)
Root Vegetables, except sugar beet (Crop Subgroup 1B)							
PMRA # 1480444, 1480516							
Carrots	Soil-directed/224-234	70-136	<0.02	0.05	--	0.02	0.05
Radish, roots	Soil-directed/110-111	27-43	<0.02	0.03			
Leaves of Root and Tuber Vegetables (Crop Group 2)							
PMRA # 1480444							
Radish, tops	Foliar/69-72	6-8	0.09	0.66	--	0.02	0.80
Leafy Vegetables, except Brassica (Crop Group 4)							
PMRA # 1197085							
Lettuce, leaf	Foliar/198	6-7	0.06	1.94	--	0.02	4.0
Celery		7	0.05	0.42			
Lettuce, head		5-7	0.02	0.31			
Spinach		7-8	0.22	1.46			
Head and stem Brassica (Crop Subgroup 5A)							
PMRA # 1197077							
Cabbage	Foliar/198	0	0.26	3.08	--	0.02	4.5
Broccoli		0	0.15	1.14			
Leafy Brassica greens (Crop Subgroup 5B)							
PMRA # 1197077							
Mustard Greens	Foliar/197	7	0.35	1.96	--	0.02	3.0
Cucurbit Vegetables (Crop Group 9)							
PMRA # 1197073							
Cantaloupe	Foliar/198	0	0.03	0.17	--	0.02	0.20
Cucumber		0	0.02	0.12			
Squash, summer		0	<0.02	0.17			
Citrus Fruits (Crop Group 10)							

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			Min	Max			
PMRA # 1480436							
Grapefruit	Foliar/190-204	0	0.03	0.18	--	0.02	0.40
Lemon	Foliar/193-200	0	0.04	0.13			
Orange	Foliar/190-205	0	<0.02	0.27	<0.6-fold: oil, juice		
Pome Fruits (Crop Group 11)							
PMRA # 1197076							
Pear	Foliar/297	13-14	0.03	0.11	--	0.02	0.20
Apple		14-15	0.03	0.16	1.6-fold: wet pomace 0.75-fold: juice		
Stone Fruits (Crop Group 12)							
PMRA # 1480431, 1480434, 1480486							
Peach	Foliar/192	13-14	<0.02	0.31	--	0.02	0.50
Plum	Foliar/192	14	<0.02	0.04			
Cherry	Foliar/192	13-15	0.13	0.30			
Caneberry subgroup (Crop Subgroup 13-07A)							
PMRA # 1480429							
Raspberry/ Blackberry/ Boysenberry	Foliar/106-109	3	<0.02	0.21	--	0.02	0.35
Small fruit vine climbing subgroup, except fuzzy kiwifruit (Crop Subgroup 13-07F)							
PMRA # 1480442, 1480488							
Grape	Foliar/ 123	4-6	0.04	0.13	1.1-fold: juice 2.3-fold: raisin	0.02	0.20 <u>Raisin</u> 0.30
Low growing berry subgroup (Crop subgroup 13-07G)							
PMRA # 1480440							
Strawberries	Foliar/235	3	0.02	0.27	--	0.02	0.30

Chemistry, Environmental and Value Assessments

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

Conclusion

Following the review of all available data, the MRLs for the crops noted in Table 1 above are recommended to cover residues of thiamethoxam and the metabolite CGA-322704. Residues of thiamethoxam in these crop commodities at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

References

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