

Evaluation Report for Category B, Subcategory 3.10, 3.11 and 3.12 Application

Application Number: 2011-0338
Application: Changes to Product Label: Tank mixes, new pests and new site or host
Product: Intrepid 240F Insecticide
Registration Number: 27786
Active ingredients (a.i.): Methoxyfenozide
PMRA Document Number : 2244577

Purpose of Application

The purpose of this application was to add several crops and pests to the label of Intrepid 240F Insecticide (Registration number 27786, 240 g/L methoxyfenozide), and to establish maximum residue limits (MRLs) for methoxyfenozide on/in the new crops.

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

The addition of new pests and host crops to the label of Intrepid 240F Insecticide does not affect the toxicity profile of this product.

The additional uses of methoxyfenozide, in Intrepid 240F Insecticide, are not expected to result in risks of concern to chemical handlers or post-application re-entry workers provided the product is applied according to the label directions.

Based on the maximum residues observed in crops, MRLs to cover residues of methoxyfenozide in/on crops and processed commodities will be proposed as shown in Table 1. Residues of methoxyfenozide in processed commodities not listed in Table 1 are covered under the recommended MRLs for the raw agricultural commodities (RACs). Based on the dietary burden and residue data for feed commodities, MRLs are also being proposed for certain animal commodities. These recommended MRLs are aligned with US EPA and/or Codex, when feasible, to remove trade irritants.

TABLE 1. Summary of Field Trial and Processing Data Used to Recommend Maximum Residue Limit(s) (MRLs).

Commodity	Application Method/Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	MRL			
			Min	Max		Currently Established	Recommended		
Radish (roots)	Foliar/556-583	13-15	<0.05	0.12	N/A	None	0.2		
Sweet Potato (roots)	Foliar/528-595	6-8	<0.01	0.012	N/A	None	0.02		
Head Lettuce (w/ wrapper leaves)	Foliar/988-1150	1	1.00	10.1	N/A	None	30		
Head Lettuce (w/o wrapper leaves)			0.039	0.145					
Leaf Lettuce			Foliar/999-1166	3.30				25.3	N/A
Spinach			Foliar/969-1150	5.40				17.8	N/A
Celery	Foliar/992-1193	1	0.342	8.21	N/A	None	15		
Broccoli	Foliar/976-1385	1	0.394	1.90	N/A	None	7		
Cabbage (w/ wrapper leaves)	Foliar/982-1148		0.118	5.10	N/A				
Cabbage (w/o wrapper leaves)			<0.02	0.362					
Mustard Greens	Foliar/998-1134	1	10.4	19.5	N/A	None	30		
Edible-Podded Pea (RAC)	Foliar/1115-1168	6-7	0.095	0.454	N/A	None	2		
Edible-Podded Bean (RAC)	Foliar/1077-1170	6-8	<0.05	0.991	N/A				
Succulent Shelled Pea (RAC)	Foliar/1110-1147	6-8	<0.05	0.179	N/A	None	0.3		

Commodity	Application Method/Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	MRL	
			Min	Max		Currently Established	Recommended
Succulent Shelled Bean (RAC)	Foliar/ 1121-1425	6-7	<0.05	0.144	N/A		
Dry Bean (RAC)	Foliar/1087-1162	6-8	<0.05	0.22	N/A	None	0.5
Soybean (RAC)	Foliar/1113-1135	14-15	<0.02	1.156	N/A	None	1.5
Tomato (RAC)	Foliar/1096-1147	1	0.046	1.860	N/A	None	2
Bell Pepper	Foliar/1085-1152		0.032	0.372	N/A		
Non-Bell Pepper	Foliar/1123-1149		0.185	1.030	N/A		
Cucumber	Foliar/1111-1194	2-3	<0.01	0.080	N/A	None	0.5
Summer Squash	Foliar/1094-1141		<0.01	0.155	N/A		
Cantaloupe	Foliar/1080-1157		<0.01	0.255	N/A		
Peach	Foliar/1990-2070	7	0.277	4.15	N/A	None	6
Cherry	Foliar/1143		0.178	0.571	N/A	None	
Plum, prune	Foliar/2287		0.099	0.360	N/A	None	0.7
Blueberry	Foliar/831-990	6-7	0.511	1.981	N/A	None	4
Almond (nutmeat)	Foliar/2227-2272	14-15	<0.02	0.088	N/A	None	0.1
Pecan (nutmeat)	Foliar/2246-2289		<0.02	0.036	N/A		
Field Corn (grain)	Foliar/1101-1152	20-23	<0.02	0.033	N/A	None	0.02
Field corn refined oil	Foliar/1143	21	0.0358 (HAFT)		1.8	None	0.05
Sweet Corn (K+CWHR)	Foliar/1101-1149	2-3	<0.02	<0.02	N/A	None	0.02
Poultry fat, meat and meat by-products						None	0.02 ¹
Eggs						None	0.02 ¹
Milk						None	0.01

Commodity	Application Method/Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	MRL	
			Min	Max		Currently Established	Recommended
Liver of cattle, goats, horses, sheep						0.1	0.15 ¹

¹ Residue definition for enforcement: methoxyfenozide + metabolite RH-1518.

HAFT = highest average field trial; PHI = Preharvest Interval

Environmental Assessment

Additional environmental data are not required to support the addition of new pests and host crops to the Intrepid 240F Insecticide label. It was noted in REG2004-08 that an edge-of-field run-off study (and if needed, an aquatic field study) would be required should methoxyfenozide be expanded to large-scale agricultural use, as is the case with the current expansion to include additional crops. The registrant has stated that a surface water and sediment monitoring study (replacing the surface water run-off study) has been scheduled; therefore the study report should be submitted to the PMRA once completed.

Methoxyfenozide may enter the aquatic environment through spray drift and/or runoff. Therefore, an environmental risk assessment was conducted for the proposed use expansions. Buffer zones were calculated using model inputs and endpoints consistent with the most current review, environmental assessment and registration of Intrepid 240F Insecticide. Standard label statements to mitigate runoff into aquatic habitats are present on the proposed label, and are considered adequate.

Value Assessment

Value information (trials and rationales) was provided to support the use of Intrepid 240F Insecticide on a variety of pests and crops. The control of cabbage looper at a rate range of 72-144 g a.i./ha on crop group 5-12 (*Brassica* (Cole) leafy vegetables), crop group 9 (Cucurbit vegetables), crop group 8-09 (Fruiting vegetables), crop group 4 (Leafy vegetables), crop group 6A (Edible-podded legume vegetables) and 6B (Succulent shelled pea and bean), dried beans and soybeans, crop group 1D (Tuberous and corm vegetables (except potato)) and radish was supported. Control of European corn borer on popcorn, field, sweet and seed corn, dried beans and soybeans, and on crop groups 6A, 6B and 8-09 was supported at the same application rate range in addition to control of imported cabbage worm and suppression of diamondback moth on crop group 5.

At a rate of 120 g a.i./ha, control of obliquebanded leafroller was supported on crop group 13-07B and at a rate of 180 g a.i./ha on crop groups 12-09 (Stone fruit) and 14-11 (Tree nuts). Control of threelined leafroller was supported on crop groups 12-09 and 14-11 also at a rate of 180 g a.i./ha. Control of spanworms on cranberry was supported at a rate range of 180-278 g a.i./ha. Suppression of codling moth on butternut and walnut was supported at a rate of 240 g

a.i./ha and control of Oriental fruit moth on apricot, nectarine and plum was supported at a rate of 360 g a.i./ha.

The use of methoxyfenozide to control spanworms and cranberry fruitworm on highbush blueberry was identified as a high priority in the Canadian Grower Priority Database. Control of spanworms was supported on crop group 13-07B and control of cranberry fruitworm was supported on highbush and lowbush blueberry, highbush cranberry, huckleberry and lingonberry at a rate of 120 g a.i./ha. The use to control peach twig borer was requested by stakeholders as a potential replacement for azinphos-methyl and was identified as a high priority in the Canadian Grower Priority Database. The use of peach twig borer on crop group 12-09 at 180 g a.i./ha was supported based on a rationale and extrapolation from the registered use of Oriental fruit moth on peach.

Conclusion

The PMRA has completed an assessment of available information for Intrepid 240F Insecticide and has found the information sufficient to amend the label to add several crops and pests, as well as to establish maximum residue limits for methoxyfenozide on/in the new crops.

References

PMRA Document Number	Reference
2002613	2000, Enforcement, Residue Analytical Methods, Corn Matrices, DACO: 7.2.2
2002615	2003, Enforcement Validation of residues in low moisture crops, DACO: 7.2.2
2002616	2001, Tolerance Enforcement Residues, Nut and Hull, DACO: 7.2.2
2002617	1999, Enforcement, Residue Analytical Methods, Grapes, Peppers, Tomatoes, DACO: 7.2.2
2002618	2003, Determination of Residues in High Moisture Crops, DACO: 7.2.2
2214676	1996, Tolerance Enforcement Residue Analytical Method for RH-2485 in Whole Cottonseed and its Processed Fractions (Meal, Hull, Refined Oil and Gin Trash), DACO: 7.2.2 CBI
2002619	2000, ILV Explanation, Residue Analytical Methods, Corn Matrices, DACO: 7.2.3
2002620	2003, ILV Enforcement of Residues in low moisture crops, DACO: 7.2.3
2002621	2001, ILV Enforcement Validation, Nut and Hull, DACO: 7.2.3
2002622	2003, ILV Determination of Residues in High Moisture Crops, DACO: 7.2.3
2002623	1999, ILV Enforcement, Residue Analytical Methods, Grapes, Peppers, Tomatoes, DACO: 7.2.3
1999726 1038639	2000, Tolerance Method for Residues Due to RH-2485 in Poultry Commodities, DACO: 7.2.1
1999734 1038642 586811	2000, Independent Laboratory Method Validation Trials of the Tolerance Enforcement Method for Residues Due to RH-2485 in Poultry Commodities TR-34-00-40 (Reference Preliminary Method TR 34-99-11), DACO: 7.2.3
2016940	2001, Multi-Residue Analytical Methodology Evaluation, DACO: 7.2.4
2002626	2000, Frozen Storage Stability in Corn Meal from Field Corn Processing Study, DACO: 7.3
2002630	1999, Frozen Storage Stability in Head Lettuce, DACO: 7.3

2002640	2002, Magnitude of residue on Cucumber, DACO: 7.3,7.4.1
2002642	2003, Magnitude and Storage Stability of Residue on Radish, DACO: 7.3,7.4.1
2002631	2005, Magnitude of residue on blueberry, DACO: 7.4.1
2002632	2002, Magnitude of residue on squash (summer), DACO: 7.4.1
2002633	2002, Magnitude of residue on Cantaloupe, DACO: 7.4.1
2002634	2003, Magnitude of Residue on Pea (succulent shelled), DACO: 7.4.1
2002635	2003, Magnitude of Residue on Pea (succulent podded), DACO: 7.4.1
2002636	2008, Methoxyfenozide Magnitude of the Residue on Bean (dry), DACO: 7.4.1
2002637	2003, Magnitude of the Residue on Bean (succulent shelled), DACO: 7.4.1
2002638	2003, Magnitude of the Residue on Bean (edible podded), DACO: 7.4.1
2002639	2005, Methoxyfenozide Magnitude of the Residue on Sweet Potato, DACO: 7.4.1
2002645	2000, Magnitude of Residue Studies for Sweet Corn, DACO: 7.4.1,7.4.2
2002646	1999, Residue Studies in Peppers, DACO: 7.4.1,7.4.2
2002648	1999, Field Residue Studies for Leafy Vegetables Crop, DACO: 7.4.1,7.4.2
2002649	1999, Field Residue Studies for Brassica, DACO: 7.4.1,7.4.2
2002650	2003, Field Residue Study for Spinach, DACO: 7.4.1,7.4.2
2002651	2003, Magnitude of Residue in Soybean and Processed Components, DACO: 7.4.1,7.4.2
2002652	2001, Field Residue Study in tree nut crop, DACO: 7.4.1,7.4.2
2002659	2010, Magnitude of the Residue on Radish, DACO: 7.4.1,7.4.2
2002653	2000, Magnitude of Residue and Processing Studies for Field Corn, DACO: 7.4.1,7.4.2,7.4.5
2002654	1999, Magnitude of Residue Tomato and its Process Components, DACO: 7.4.1,7.4.2,7.4.5
586831; 586829; 1012763	2000, RH-2485 80W and 2F Field Residue Study in the Stone Fruit Crop Group, DACO: 7.4.1,7.4.2
2133135	2000, RH-2485 80W Field Accumulation in Rotational Crops, DACO: 7.4.4
2133136	2003, RH-2485 80W Field Accumulation Study in Wheat, Soybean, Turnip, Cucumber, Mustard Greens, Tomato and Onion Rotational Crops, DACO: 7.4.4
2133138	2003, RH-2485 80W Field Accumulation Study in Rotational Crops of the Root and Tuber, Bulb, Legume and Grain Crop Groups, DACO: 7.4.4
586839; 1013143; 1013145	2000, Meat and Egg Magnitude of the Residue Study with RH-2485 in White Leghorn Chickens, DACO: 7.5
2024730	DWE Submitted Exposure Summary and Use Description/Scenario, DACO: 5.1, 5.2
2133132	DWE Response to Request for DFR Study, DACO: 5.1
2115788	Agricultural Reentry Task Force (ARTF). 2008. Data Submitted by the ARTF to Support Revision of Agricultural Transfer Coefficients. Submission #2006-0257
2002602	2010, Value Summary - Methoxyfenozide, DACO: 10.1
2002604	2010, Summary of Efficacy Trials, DACO: 10.2.3.1
2002605	2010, Blueberry Summary Table, DACO: 10.2.3.1
2002606	2010, Corn Summary Table, DACO: 10.2.3.1
2002607	2010, Cranberry Summary Table, DACO: 10.2.3.1
2002608	2010, Fruiting Veg Summary Table, DACO: 10.2.3.1
2002609	2010, Grapes Summary Table, DACO: 10.2.3.1

2002610	2010, Leafy Veg and Cole Crops Summary Table, DACO: 10.2.3.1
2002611	2010, 32 Individual Efficacy Field Trial Results (Dec 23, 2010), DACO: 10.2.3.3
2002612	2010, Summaries of Adverse Effects, DACO: 10.3.1
2044380	1999, Control of Western Bean Cutworm, DACO: 10.2.3
2133139	2011, Value DAS Deficiency Response, DACO: 10.1,10.2.3.4

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