



Evaluation Report for Category B, Subcategory B.3.11, B.3.12 Application

Application Number: 2011-4114
Application: Label expansion; new crops and pests.
Product: DuPont Coragen Insecticide
Registration Number: 28982
Active ingredients (a.i.): Chlorantraniliprole
PMRA Document Number : 2286572

Background

DuPont Coragen Insecticide, containing the active ingredient chlorantraniliprole, is registered for use on tuberous and corm vegetables group, fruiting vegetables group, brassica vegetables group, leafy vegetables group, legume vegetables group (except soybeans), cucurbit vegetables group, corn (field, pop, sweet, and seed), grass forage, fodder, and hay group (seed production only), non-grass animal feeds group, mint, okra, greenhouse cucumbers, greenhouse tomatoes, greenhouse eggplant, and greenhouse peppers to control a variety of insect pests.

Purpose of Application

The purpose of this application was to expand the label of DuPont Coragen Insecticide to include use on oilseeds (crop subgroup 20A and crop subgroup 20B), soybeans (for legumes vegetables crop group 6) and root and tuber vegetables (crop group 1) and to establish associated maximum residue limits (MRLs).

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

The addition of new crops did not impact the acute toxicity of the end-use product DuPont Coragen Insecticide.

The potential exposures of mixers, loaders, applicators, and post-application re-entry workers, are considered acceptable given the uses currently registered for this product, and no occupational endpoints have been identified. The amendments to DuPont Coragen Insecticide (include the addition of oilseeds, root and tuber crop group, and soybeans (legume vegetables, crop group 6)) fit within the registered use pattern for the active chlorantraniliprole.

Residue data from field trials conducted in/on radish, canola and sunflower were assessed in the framework of this application to support the use expansion of chlorantraniliprole to the root and tuber vegetables (crop group 1), soybeans, canola (crop subgroup 20A) and sunflower (crop subgroup 20B). Previously reviewed residue data from field trials conducted in/on potato, edible

podded and succulent shelled peas and beans and cottonseed were reassessed in the framework of this application. In addition, processing studies in treated soybean and cottonseed were reviewed to determine the potential for concentration of residues of chlorantraniliprole into processed commodities.

Maximum Residue Limit

Based on the maximum residues observed in radish, soybean, canola and sunflower treated according to label directions, maximum residue limits (MRLs) of chlorantraniliprole will be established as shown in Table 1. MRLs of chlorantraniliprole are proposed at 0.3 ppm to cover residues on/in root and tuber vegetables (crop group 1) and 2.0 ppm for oilseeds (crop subgroup 20A and crop subgroup 20B). The established MRL for legumes vegetables (crop group 6) except soybeans is recommended to be extended to soybeans. Undelinted cottonseed MRL of 0.3 ppm will be replaced by a MRL of 0.3 ppm for crop subgroup 20C. Residues in processed commodities not listed in Table 1 are covered under the proposed MRL for the raw agricultural commodity (RAC).

Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (day)	Residues (ppm)		Experimental Processing Factor	Currently Established MRL	Recommended MRL
			Min	Max			
Radish	Foliar broadcast/ 224-232	1	0.021	0.26	None	0.01 (CSG 1C)	0.3 ¹
Dry Soybean	Foliar broadcast/ 224	1	0.17	0.23	None	2.0 ²	2.0
Canola	Foliar broadcast/ 219-231	1	0.12	1.2	None	None	2.0 (CSGs 20A & 20B)
Sunflower	Foliar broadcast/ 219-230	1	0.027	0.85	None		
Cottonseed	Foliar broadcast/ 224	0	0.077	0.24	None	0.3 ³	0.3 (CSG 20C)

¹ This MRL of 0.3 ppm for root and tuber vegetables (crop group 1) will replace the currently established MRL of 0.01 ppm for corm and tuberous vegetables subgroup (crop subgroup 1C). ² The MRL of 2.0 ppm is currently established for legumes vegetables (crop group 6) except soybeans. ³ The MRL of 0.3 ppm is currently established on undelinted cottonseed.

Based on the dietary burden and residue data, chlorantraniliprole MRLs of 0.02 ppm on/in meat of poultry and 0.05 ppm in fat and meat by-products of poultry are also proposed to replace the currently established MRL of 0.01 ppm on/in meat, fat and meat by-products of poultry.

Environmental Assessment

The use pattern for Dupont Coragen on oilseeds, legume vegetables, root and tuber vegetables is

within those registered for other labelled crops. Therefore, no additional environmental risk is expected from this label expansion. Label statements are required to identify environmental hazards and to reduce the potential exposure of non-target organisms.

Value Assessment

Based on the submitted Value information and precedents, the following uses and claims were supported. The expansion of the crop subgroup 1C, tuberous and corm vegetables, to include all of crop group 1, root and tuber vegetables was supported. The control of cabbage looper, black cutworm, imported cabbage worm and Swede midge on root and tuber vegetables - crop group 1 was supported. The addition of soybean to the legume vegetables group – crop group 6 was supported. The control of tomato fruitworm on legume vegetables – crop group 6 was supported. The control of armyworm, fall armyworm, beet armyworm, variegated cutworm, corn earworm/tomato fruitworm, European corn borer, and Western bean cutworm on field corn, popcorn, and seed corn was supported. The control of tomato fruitworm on sweet corn was supported. The addition of oilseeds – crop group 20 was supported. The control of diamondback moth, imported cabbage worm, Swede midge, cabbage looper, Bertha armyworm, sunflower head moth, cutworms, and reduces damage caused by sunflower head moth on oilseed crops – crop group 20 was supported.

Conclusion

Following the review, the label expansion to add use on oilseeds, root and tuber crop group, and soybeans (legume vegetables, crop group 6) was supported. Maximum residue limits (MRLs) of 0.3 ppm for root and tuber vegetables (crop group 1); 2.0 ppm for oilseeds (crop subgroups 20A and 20B); 0.02 ppm for meat of poultry and 0.05 ppm for fat and meat by-products of poultry are recommended to cover residues of chlorantraniliprole. In addition, the established MRL of 2.0 ppm in legume vegetables (crop group 6) except soybeans will be extended to soybeans. The established MRL of 0.3 ppm in/on undelinted cottonseed will be extended to cotton crop subgroup 20C. Residues of chlorantraniliprole at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

References

PMRA Document Number	Reference
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1717679	2008, Magnitude of Chlorantraniliprole Residues in Radishes Following Foliar Applications of Chlorantraniliprole (DPX-E2Y45) 20SC [200 g/L (w/v); 18.4% (w/w)] Canada and the U.S., 2008, DACO: 7.4.1

PMRA Document Number	Reference
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2098737	2006, Magnitude of DPX-E2Y45 Residues in Processed Fractions of Cottonseed Following Foliar Applications of DPX-E2Y45 35WG - U.S., 2005, DACO: 7.4.5
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1693486	2008, Magnitude and decline of chlorantraniliprole residues in dry soybean – Japan 2006 English translation and compilation of Japanese original documents, DACO: 7.4.1
1693487	2008, Magnitude and decline of chlorantraniliprole residues in green soybean – Japan 2006 English translation and compilation of Japanese original documents, DACO: 7.4.1
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1987227	2010, Residue report - Chlorantraniliprole: Magnitude of the Residue on Succulent Peas, DACO: 7.3,7.4.1,7.4.2
2098713	2011, EFFICACY ASSESSMENT OF DUPONT CORAGEN INSECTICIDE FOR CONTROL OF INSECT PESTS IN OILSEED CROPS, ROOT AND TUBER VEGETABLES AND SOYBEANS CANADA, 2011, DACO: 10.1,10.2.2,10.2.3.1,10.2.3.3,10.3.1,10.3.2,10.3.

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