

Evaluation Report for Category B, Subcategory 3.11, 3.12 Application

Application Number: 2008-5103
Application: New pests and new hosts
Product: Delegate WG Insecticide
Registration Number: 28778
Active ingredients (a.i.): Spinetoram
PMRA Document Number : 1866466

Background

Delegate WG Insecticide (Registration Number 28778) containing 25% spinetoram is registered for control or suppression of many foliage feeding pests. The product is derived from the fermentation of *Saccaropolyspora spinosa*. For specific details of listed crops and pests, refer to the product label.

Purpose of Application

Dow AgroSciences has submitted an application to amend the label for Delegate WG Insecticide by adding new claims for the control of Colorado potato beetle and European corn borer on potatoes and tuberous & corm vegetables (garden beet, potato, sugar beet, sweet potato).

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

The proposed amendments are not expected to affect the toxicity profile of this product.

The exposures to mixers, loaders, applicators, and post-application workers are not expected to increase compared to the exposure from the currently registered use pattern. Workers are adequately protected when following label instructions and wearing listed personal protective equipment.

Residue data (for Canada and United States) has previously been submitted to support the promulgation of import maximum residue limits (MRLs) on both crop subgroups 1C & 1D at 0.04 ppm [see ERC2008-01 for full details]. The proposed maximum seasonal rate is lower than the one assessed for the promulgation of the import MRL. Therefore spinetoram residues are not expected to exceed the MRL of 0.04 ppm when potatoes and tuberous & corm vegetables (crop subgroups 1C & 1D) are treated according to the approved Good Agricultural Practices (GAP). Consequently the consumption estimates coupled with the MRLs indicate that there is adequate protection of the consumer, including infants, children, adults and seniors from dietary exposure of spinetoram following use in accordance with GAP.

Environmental Assessment

Additional environmental data were not required to support the proposed label claims for Delegate WG Insecticide. The proposed maximum seasonal rate is lower than the current registered maximum. Therefore, no additional environmental risk is expected from the proposed use of this product for the control of Colorado potato beetle and European corn borer on potatoes and tuberous & corm vegetables (garden beet, potato, sugar beet, sweet potato). Environmental concerns are mitigated on the existing label.

Value Assessment

Efficacy data were submitted from five trials for Colorado potato beetle and three trials for European corn borer, all conducted on potatoes between 2006 and 2008 in Prince Edward Island, Ontario, and Manitoba. For Colorado potato beetle, the results demonstrated that Delegate WG Insecticide can provide control with a single application of 40-60 g a.i./ha. A lower application rate of 20 g a.i./ha was less effective and there was some evidence of a rate effect at the higher rates as well, although in most cases rates of 40 and 60 g a.i./ha produced equivalent results. In most trials, numbers of larvae were reduced to very low levels, defoliation was reduced significantly, and yields were significantly higher than in the untreated controls. In some of the trials, numbers of larvae increased again by 10-18 days after treatment, indicating the potential need for a second application after 7-14 days to maintain control. For European corn borer, the results demonstrated that Delegate WG Insecticide can significantly reduce infestation and damage with a single application of 40 g a.i./ha targeting egg hatch. Although high levels of control were not obtained and significant differences in yield were not observed, Delegate WG Insecticide was at least as effective at reducing infestation and damage levels as the commercial standard. Thus, the submitted efficacy data supported the new label claims for control of Colorado potato beetle and European corn borer on potatoes. The proposed label claim for garden beet, sugar beet, and sweet potato were not supported because neither Colorado potato beetle nor European corn borer is a pest of any of these crops in Canada.

Conclusion

The PMRA has conducted a critical evaluation of the subject application and has found the information sufficient to support the proposed use of Delegate WG Insecticide on potatoes. The proposed use on garden beet, sugar beet, and sweet potato was not supported because neither Colorado potato beetle nor European corn borer is a pest of any of these crops in Canada.

References

- 1666135 2006, Evaluate XDE-175 and Spinosad for control of Colorado Potato Beetles in potatoes, DACO: 10.2.3.3
- 1666136 2007, Evaluation of Spinosad and XDE-175 for control of Colorado Potato Beetle on Potatoes, DACO: 10.2.3.3
- 1666137 2008, Dow Agro – Foliar Insecticide Evaluation: Final Report, DACO: 10.2.3.3
- 1666138 2008, Evaluating Spinosad and XDE-175 for Control of Colorado Potato Beetle in Potato, DACO: 10.2.3.3
- 1666139 2008, Evaluation of Spinosad for the Control of Colorado Potato Beetle in Potatoes, DACO: 10.2.3.3
- 1666140 2006, Evaluate [*sic*] the efficacy of XDE-175 and Spinosad for control of European Corn Borer in potatoes, DACO: 10.2.3.3
- 1666141 2007, Evaluation of Spinosad and XDE-175 for control of European Corn Borer in Potatoes, DACO: 10.2.3.3
- 1666142 2008, Evaluation of Spinosad for the Control of European Corn Borer in Potatoes, DACO: 10.2.3.3

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