



Evaluation Report for Category C, Subcategory 3.10 Application

Application Number: 2013-2550
Application: Application to amend an existing tank-mix and to add a new tank-mix
Product: Frontier Max Herbicide
Registration Number: Reg. No. 29194
Active ingredients (a.i.): Dimethenamid-p at 720 g/L
PMRA Document Number : 2327475

Background

Frontier Max (PCP # 29194) is an emulsifiable concentrate formulation containing 720 g/L of dimethenamid-p. Frontier Max Herbicide is registered for pre-plant incorporated or pre-emergent applications in field corn, sweet corn, seed corn (inbred lines grown in southern Ontario only), soybeans, dry common beans and peanuts grown in Ontario. Frontier Max is also registered for pre-transplant application in transplanted cabbage, onions (dry bulb and green), and for an early post-emergence application in field corn and post-emergence application in commercial ornamental production and in 1st and 2nd year non-bearing grape vines. The use rate is 544 to 693 g ai/ha when applied alone; rates vary depending on soil texture, organic matter content and weed density.

Purpose of Application

1. The purpose of this application was to make amendments to the currently registered tank-mix of Frontier Max (544 g ai/ha dimethenamid-p) + Impact (12.5 g ai/ha topramezone) + atrazine at 500 g ai/ha + Merge or Assist at 0.25% v/v + UAN at 1.25% v/v, applied early post-emergence in field corn. The requested amendments were to 1) expand the application rate of Frontier Max in the tank-mix from a single rate (544 g ai/ha) to the rate range registered for the early post-emergent application of Frontier Max alone in field corn (544-693 g ai/ha) and 2) to substitute the product Armezon Herbicide (PCP # 30131) for Impact Herbicide as the topramezone tank-mix partner.
2. Additionally, a second amendment was requested to add a four-way tank-mix of Frontier Max (544- 693 g ai/ha dimethenamid-p) + Armezon Herbicide (12.5 g ai/ha topramezone) + atrazine at 500 g ai/ha + glyphosate (900 g ae/ha) to the label as an early post-emergent application in glyphosate tolerant field corn varieties.

Chemistry, Health and Environmental Assessments

A chemistry assessment was not required since there was no change to product chemistry. Health and environmental assessments were not required since the use pattern, including host

crops, application rates and timings, of the component products remained unchanged.

Value Assessment

1. A scientific rationale providing information on the requested amendments was submitted to support the changes to the currently registered tank-mix and the addition of a new tank-mix. Based on the information provided, the change in the rate of Frontier Max in the tank-mix from a rate of 544 g ai/ha to the registered rate range of 544 to 693 g ai/ha for the product applied alone is supported. The substitution of Armezon Herbicide for Impact Herbicide as the source of topramezone in the same tank-mix is also supported.

2. The addition of glyphosate to the three-way tank-mix of Frontier Max + Armezon Herbicide + atrazine will broaden the weed control spectrum and control glyphosate resistant weed biotypes and may help prevent the further development of glyphosate resistant weed biotypes. The tank-mix of Impact/Armezon + atrazine + glyphosate is registered and included on the Impact/Armezon label as a post-emergent application in glyphosate tolerant field corn varieties. The addition of Frontier Max to this tank-mix is not expected to alter the level of weed control or the tolerance of the crop to each component of the tank-mix. The four-way tank-mix of Frontier Max (544- 693 g ai/ha dimethenamid-p) + Armezon Herbicide (12.5 g ai/ha topramezone) + atrazine at 500 g ai/ha + glyphosate (900 g ae/ha) is supported.

Conclusion

The PMRA has completed an evaluation of the subject application and found the information sufficient to amend the registration of Frontier Max Herbicide to include the requested amendments.

References

A. List of Studies/Information Submitted by Registrant

2301735 2013, Waiver Request for the Exemption of Efficacy Studies and Non-Safety Adverse Effects Studies. DACO 10.1

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