Health Canada Santé Canada

Evaluation Report for Category B.3.1-S-A-EP application

Application Number: 2006-7676
Application: Cat B.3.1 (application rate increase)
Product: Refine SG Herbicide
Registration Number: 28285
Active ingredients (a.i.): Tribenuron methyl (MMM) and Thifensulfuron methyl (MEX)
PMRA Document Number: 1710413

Background

Refine SG Herbicide has been registered since March 30, 2006. Refine SG Herbicide is registered for postemergence use on wheat (spring, winter or durum), spring barley and oats and seedlings and established grass species for forage and seed production only. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to the product label.

Purpose of Application

The purpose of this submission is to increase the rate of Banvel II and Banvel Dry on wheat and barley from 53 to 70 g a.i. (dicamba)/ha in tank mixes of the label of Refine SG Herbicide (Reg. No.8285) containing Thifensulfuron methyl (Reg. No. 21060) and Tribenuron methyl (Reg. No. 22330).

Chemistry Assessment

A chemistry assessment was not required, since there was no change to product chemistry.

Health Assessments

Toxicology Assessment

A toxicology assessment was not required.

Occupational Exposure Assessment

The proposed increase in tank mix rate fits within the registered use patterns for dicamba, thifensulfuron methyl and tribenuron methyl. Exposure to mixer/loader/applicators and post-application workers should not increase over registered uses of the actives

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Food Residue Assessment

The maximum proposed rate for the dicamba tank-mixes (70 g a.i./ha) on wheat and barley is within the maximum registered rates of dicamba on these two crops. Therefore, dietary exposure to residues of dicamba are not expected to increase.

Environmental Assessment

The proposed rate increase (from 53 to 70 g a.i./ha) is lower than the registered application rates of 110 - 140 g a.i./ha (Banvel II; Reg. No.23957) and 160 - 200 g a.i./ha (Banvel Dry; Reg. No. 24362). Therefore, no increase in environmental risk is expected. Environmental concerns have been mitigated through adequate statements on the product label.

Value Assessment

Efficacy was visually assessed throughout the growing season in 18 single season trials conducted in Manitoba, Saskatchewan and Alberta over two years. Data collected at 42-56 days for the proposed tank mix treatments with dicamba at 70 g a.i./ha supported control claims for improved control of kochia (including group 2 resistant kochia) when the majority of kochia plants are at or near the 8-leaf stage, or when growing conditions are not favorable.

Crop injury was visually assessed throughout the growing season in 16 single season spring wheat trials conducted in Manitoba, Saskatchewan and Alberta over two years. Data collected at 42-56 days for the proposed tank mix treatments with dicamba at 70 g a.i./ha supported crop tolerance claims for spring wheat. Yield was assessed in 15 trials. Yield of the proposed tank mix treatments with dicamba at 70 g a.i./ha were similar to the tank mix treatments with dicamba at 53 g a.i./ha. Although there were no crop tolerance data reported for spring barley, it was anticipated that the margin of crop safety for barley would be similar to wheat because of the following factors: 1) the registered application rate of dicamba (Banvel II and Banvel Dry) alone is 110 g a.i./ha for use on cereals (spring wheat, spring barley, winter wheat, oats and spring rye); and 2) the tank mix of Refine SG and Banvel II or Banvel Dry to control broadleaf weeds showed acceptable levels of crop safety on spring wheat (cereal crop).

Conclusion

The PMRA has completed an evaluation of the subject application and has found the information sufficient to amend the registration of Refine SG Herbicide to include the proposed rate for the dicamba tank-mixes (70 g a.i./ha) on wheat and barley on the product label.

References

A. List of Studies/Information Submitted by Registrant

PMRA 1335394 Efficacy and crop tolerance of a tank mixture of thifensulfuron methyl, tribenuron methyl and an increased rate of dicamba for improved kochia control in spring wheat and spring barley. E.I. du Pont Canada Company. Part 10 Value. November 7, 2006. pp 515

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