

Evaluation Report for Category B, Subcategory 3.10 Application

Application Number: 2015-1041
Application: Tank Mixes
Product: Converge Pro Suspension Liquid Herbicide
Registration Number: 27446
Active ingredients (a.i.): Isoxaflutole
PMRA Document Number: 2562829

Background

Converge Pro Suspension Herbicide, containing 480 g isoxaflutole/L, was first registered on September 11, 2003. Converge Pro Suspension Herbicide is registered for use in conventional, minimum tillage, or zero tillage crop management systems for pre-plant or pre-emergence application in field corn and isoxaflutole-tolerant soybean for control of several broadleaved and grass weed species. 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 application was to expand the registration of Converge Pro Suspension Herbicide to include a tank mix option with Sencor 480 F Flowable Herbicide for pre-plant or pre-emergence application to isoxaflutole-tolerant soybean for control of Converge Pro-labelled weeds, as well as for early-season control of lady's thumb, wild buckwheat, and yellow foxtail for the tank mix applied at 110 ml/ha of Converge Pro (52.8 g a.i./ha) plus 438 ml/ha Sencor 480 F (210 g a.i./ha), season-long control of lady's thumb for the tank mix applied at 165 ml/ha of Converge Pro (79.2 g a.i./ha) plus 875 ml/ha Sencor 480 F (315 g a.i./ha), and for season-long control of wild buckwheat, yellow foxtail, Canada fleabane and giant ragweed, including glyphosate-resistant biotypes of the latter two, for the tank mix applied at 220 ml/ha Converge Pro (105.6 g a.i./ha) plus 875 ml/ha Sencor 480 F (420 g a.i./ha). An additional purpose of this application was to expand current control claims for common ragweed and common (tall) waterhemp for Converge Pro applied alone to include glyphosate-resistant biotypes.

Chemistry Assessment

A chemistry assessment was not required as there was no change to the product formulation.

Health and Environmental Assessments

Health and environmental assessments were not required as there was no change to the use pattern, including host crops, application methods, timings and rates.

Value Assessment

In support of claims of control of lady's thumb, wild buckwheat, and yellow foxtail, value information in the form of efficacy data generated in seven small-scale replicated field trials conducted at three sites in Ontario and one site in Quebec in 2014 was submitted. Each trial included separate treatments of the tank mixture applied pre-plant or pre-emergence at the three rates as well as Converge Pro applied alone at the three registered rates. Application of the Converge Pro plus Sencor 480 F tank mixture resulted in early season control of lady's thumb, wild buckwheat and yellow foxtail regardless of rate. Season-long lady's thumb control was achieved by the mid-rate, while season-long control of wild buckwheat and yellow foxtail required the highest rate. Application of the tank mixture consistently resulted in greater control than Converge Pro applied alone.

In support of claims of control of Canada fleabane and giant ragweed, value information was submitted in the form of efficacy data from five and three trials, respectively, all conducted in Ontario under fallow. Each trial was conducted on sites with known infestations of glyphosate-resistant biotypes of one or other of these weeds. All herbicide treatments included Roundup Weathermax at 900 g a.e./ha as a tank mixture component. Roundup WeatherMax applied alone constituted the untreated control treatment. Included were separate treatments of the tank mixture of Converge Pro plus Sencor 480 F at the three rates, 105.6 g a.i./ha Converge Pro, and 420 g a.i./ha Sencor 480 F. Application occurred when Canada fleabane was from 3-10 cm in height and when giant ragweed was from 5-15 cm in height. Application of the tank mixture of Converge Pro plus Sencor 480 F at the highest rate was required to achieve season long control of glyphosate-resistant Canada fleabane and glyphosate-resistant giant ragweed. The level of control was greater for the tank mix than either component product applied alone at their respective rates. Control of non-glyphosate-resistant Canada fleabane and giant ragweed would also be expected as the absence of glyphosate resistance would not impact the efficacy of the tank mixture of Converge Pro plus Sencor 480 F for control of these weeds.

In support of the claims of control of glyphosate-resistant biotypes of both common ragweed and common waterhemp, value information in the form of a rationale was submitted in which it was argued that as there is no cross resistance between isoxaflutole and glyphosate, Converge Pro can be expected to control glyphosate-resistant biotypes of common ragweed and common waterhemp. While tall waterhemp was previously listed on the Converge Pro label, tall waterhemp and common waterhemp are now considered to be the same species as they freely cross pollinate.

Isoxaflutole-tolerant soybean consistently exhibited a high margin of crop safety to pre-plant or pre-emergent applications of the highest rate of the Converge Pro plus Sencor 480 F tank mixture, as evidenced by visual assessments of crop injury as well as yield data.

The expansion of the registration of Converge Pro Suspension Liquid Herbicide to include tank mixing with Sencor 480 F Flowable Herbicide will provide growers of isoxaflutole-tolerant soybean the option to control lady's thumb, wild buckwheat, yellow foxtail, Canada fleabane and giant ragweed, which are not controlled by Converge Pro alone. Additionally, it is important that growers have options available to control weeds that are glyphosate-resistant, to both reduce competition from such weeds but also to reduce weed seed production and potential spread of glyphosate-resistant weed populations. In eastern Canada, there are known glyphosate-resistant populations of Canada fleabane, giant ragweed, common ragweed and common waterhemp.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the submitted information adequate to support the tank mixture of Converge Pro Suspension Herbicide plus Sencor 480 F Flowable Herbicide applied pre-plant or pre-emergence to isoxaflutole-tolerant soybean for control of Converge Pro-labelled weed species as well as lady's thumb, wild buckwheat, yellow foxtail, Canada fleabane, including glyphosate-resistant biotypes, and giant ragweed, including glyphosate-resistant biotypes. Claims of control of glyphosate-resistant biotypes of both common ragweed and common waterhemp are supported for Converge Pro applied alone.

References

List of Studies/Information Submitted by Registrant

Value Assessment

2512581	2015, Converge Pro + Sencor 480 F Applied Pre-plant or Pre-emergence to IFT-tolerant Soybeans for Grassy and Broadleaf Weed Control, DACO: 10.2,10.2.3,10.2.3.3(B),10.3,10.3.2(A)
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