

Evaluation Report for Category B, Subcategory 3.10, 3.11 and 3.12 Application

Application Number: 2011-2909
Application: Changes to product label: Tank mixes, new pests, new site or host
Product: Reflex Liquid Herbicide
Registration Number: 24779
Active ingredients (a.i.): Fomesafen
PMRA Document Number : 2199059

Background

Reflex Liquid Herbicide (Registration number 24779; guarantee 240 g fomesafen/ha) is presently registered for selective post-emergence broadleaf weed control in soybeans, dry edible beans, lima beans, and snap common beans (yellow and green) in Eastern Canada, in otebo beans in Ontario, and dry edible beans in the Red River Valley of Manitoba.

Purpose of Application

The purpose of this application was to amend the registration of Reflex Liquid Herbicide to expand the geographic range of use on soybeans from Eastern Canada only to Eastern Canada and the Red River Valley of Manitoba, to add two new tank-mixes (Touchdown Total containing 500 g glyphosate/L, Registration number 28072 and Basagran Herbicide containing 480 g bentazon/L, Registration number 12221) for use on soybeans, and to add a new pest (volunteer canola) on the label.

Chemistry Assessment

A chemistry assessment was not required for this assessment.

Health Assessments

A toxicology assessment was not required for this assessment.

The use of the new end-use product Reflex Liquid Herbicide should not result in potential occupational or bystander exposure over the registered use of fomesafen. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

No new residue data for fomesafen, glyphosate or bentazon were submitted in support of the registration of Reflex Liquid Herbicide on soybeans in the Red River Valley of Manitoba or the addition of the tank-mixes Touchdown Total (containing glyphosate) and Basagran Herbicide (containing bentazon). Residue data on file for fomesafen on soybeans are adequate to support

the use on soybeans in the Red River Valley of Manitoba. The tank-mix partners are currently registered for use on soybeans with similar use patterns. The registration of Reflex Liquid Herbicide for use on soybeans in the Red River Valley of Manitoba and the addition of the tank-mixes are not expected to have an impact on dietary exposure and will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The application rates of the individual active ingredients are below currently registered rates for the same crops and application methods. As a result, no additional environmental data were required for this application nor is there expected to be an increase in environmental risk.

Value Assessment

Data from four appropriately designed efficacy trials conducted in Ontario and Manitoba in 1997 and 2011 were submitted to support inclusion of a claim of volunteer canola control for Reflex Liquid Herbicide at 1.0 L/ha. Volunteer canola control following an application of Reflex Liquid Herbicide at 1.0 L/ha was 91.4% over three trials at 13-14 days after treatment (DAT), 92.4% over three trials at 21-22 DAT, and 94.2% over four trials at 28-32 DAT. In addition, a control claim for wild mustard (*Sinapis arvensis* L.), a closely related species to volunteer canola, is presently labeled for Reflex Liquid Herbicide at the 1.0 L/ha rate. Therefore, inclusion of control claim for volunteer canola was supported for labeling.

Labelling of 0.58 L/ha Reflex Liquid Herbicide + 1.75 L/ha Basagran Herbicide (480 g bentazon/L) on soybeans in the Red River Valley of Manitoba was supported for the following reasons:

- This tank mixture is presently labelled for control of certain broadleaf weeds on dry edible beans in the Red River Valley of Manitoba.
- No efficacy data are required to add a host crop, with a comparable growth habit and competitiveness, to a registered herbicide treatment for the same efficacy claims in the same region.
- Reflex Liquid Herbicide at 1.0 L/ha is presently registered on soybeans in Eastern Canada and Basagran Herbicide at 1.75 or 2.25 L/ha is registered on soybeans without geographic restrictions. Additional crop tolerance data from three trials demonstrated that soybean exhibited an adequate margin of crop safety to this tank mixture applied as per label instructions.

Labelling of 0.58 L/ha Reflex Liquid Herbicide + 1.8-3.6 L/ha Touchdown Total (or 900-1800 g a.e./ha glyphosate herbicide) for control of volunteer canola and burndown of annual and perennial grasses and broadleaf weeds on soybeans in the Red River Valley of Manitoba was supported for the following reasons:

- FlexStar Herbicide (Registration number 29644), co-formulation of fomesafen at 79 g/L and glyphosate at 315 g/L, is registered for non-selective burndown of annual and perennial

grasses and broadleaf weeds and residual control of redroot pigweed and common ragweed in glyphosate-tolerant soybeans when applied at 3.0 L/ha (i.e. 237 g a.i./ha fomesafen + 945 g a.e./ha glyphosate).

- When FlexStar Herbicide was first registered, it was concluded that no antagonism was observed with FlexStar Herbicide in comparison to an application of Touchdown alone.

Mean volunteer canola control following an application of Reflex Liquid Herbicide at 0.58 L/ha + Agral 90 (Registration number 11809 or 24725; guarantee of 92 or 90% nonylphenoxy polyethoxy ethanol, respectively) at 0.1% v/v in three trials conducted in Manitoba in 2011 was 86.8% at 13-14 DAT, 87.2% at 21-22 DAT, and 87.2% at 28-30 DAT. Efficacy data generated with Reflex Liquid Herbicide could be used to support efficacy claim for Reflex Liquid Herbicide + glyphosate herbicide.

Conclusion

The PMRA has completed an assessment of available information for Reflex Liquid Herbicide and has found the information sufficient to support the label amendments to expand the geographic range of use on soybeans to include Eastern Canada and the Red River Valley of Manitoba, to add two new tank-mixes (Touchdown Total and Basagran Herbicide) for use on soybeans, and to add a new pest (volunteer canola).

References

PMRA Identification Number	Reference
2078304	Trial summary report. DACO 10.2.3.3 and 10.3.2.
2078305	Trial summary report. DACO 10.2.3.3 and 10.3.2.
2078307	Trial summary report. DACO 10.2.3.3 and 10.3.2.
2078308	Trial summary report. DACO 10.2.3.3 and 10.3.2.
2106418	Trial report. DACO 10.2.3.3 and 10.3.2.
2106419	Trial report. DACO 10.2.3.3 and 10.3.2.
2106420	Trial report. DACO 10.2.3.3 and 10.3.2.

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