

Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4, 2.6, 3.2, 3.10, 3.11 Application

Application Number: 2015-6783
Application: B.2.1: New Guarantee
B.2.3 New Identity of Formulants
B.2.4: New Proportion of Formulants
B.2.6: New Combination of TGAIs
B.3.2: New Application Timing
B.3.10: New Tank Mixes
B.3.11: New Pests
Product: BCS-CT-02
Registration Number: 32604
Active ingredients (a.i.): Dicamba + Tembotrione
PMRA Document Number: 2725921

Purpose of Application

The purpose of this application was to register the end use product, BCS-CT-02, containing the active ingredients of dicamba and tembotrione for control of emerged weeds when applied pre-plant, pre-emergence, and post-emergence to field and seed corn in eastern Canada and Manitoba.

Chemistry Assessment

BCS-CT-02 is formulated as a suspension containing dicamba, present as diglycolamine salt and tembotione at nominal concentrations of 151 g/L and 32 g/L respectively. This end-use product has a density between 1.110-1.150 g/mL and a pH between 3.45-3.70. The required chemistry data for BCS-CT-02 have been provided, reviewed and found to be acceptable.

Health Assessments

BCS-CT-02 is of low acute toxicity via the oral, dermal and inhalation routes in rats. It was mildly irritating to the eye and non-irritating to the skin of rabbits. BCS-CT-02 is not a dermal sensitizer in mice when tested using the LLNA.

The end-use product, BCS-CT-02, for use on field corn (grown for grain, silage or seed) fits within the registered use pattern for dicamba and tembotrione. The potential occupational or bystander exposure is not expected to exceed the current exposure to registered products containing these active ingredients. No health risks of concern are expected when workers follow label directions and wear personal protective equipment on the label.

Previously reviewed residue data from field trials conducted in/on corn were reassessed in the framework of this application. Exposure to residues of dicamba and tembotrione in corn and livestock commodities as a result of the use of BCS-CT-02 will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

BCS-CT-02 will have the same environmental precautions, including spray buffer zones, as currently registered products containing tembotrione and dicamba.

Value Assessment

BCS-CT-02 Herbicide, containing dicamba and tembotrione which belong to the mode-of-action groups 4 and 27, will offer field corn growers a one-pass application option to control numerous weed species, including populations that have developed resistance to other herbicide modes of action, such as glyphosate, for which resistant populations of common ragweed, giant ragweed, common waterhemp and Canada fleabane have been found. BCS-CT-02 can also be expected to mitigate the development of resistance to either of its two modes-of-action and provide control or suppression of populations of labelled weeds that may have already developed resistance to one of its modes-of-action. Additional broad-spectrum weed control may be achieved by a pre-plant or pre-emergence application of a tank mix with glyphosate, or by a post-emergence application of a tank mix with glyphosate on glyphosate-tolerant corn or by a tank mix with Liberty 200 SN Herbicide on glufosinate ammonium-tolerant corn.

Submitted value information consisted of data generated in 26 replicated small plot field trials conducted across various ecozones in Ontario and Quebec in 2015. The performance of BCS-CT-02 applied alone at the low and high rates of 1.9 and 2.85 L/ha was compared to that of separate treatments of the currently registered products, containing dicamba alone or tembotrione alone, applied at their respective labelled rates. Similarly, the performance of tank mixtures of BCS-CT-02 plus Roundup WeatherMax (Reg. No. 27487) or Liberty 200SN (Reg. No. 25537) was compared to that of tank mixtures of currently registered products plus the same herbicides. Performance data supported each labelled weed claim on BCS-CT-02, including green pigweed, and at the high rate only, glyphosate-resistant biotypes of common ragweed, giant ragweed, common waterhemp and Canada fleabane. Performance data also indicate that field corn can be expected to exhibit an adequate margin of crop safety to an application of BCS-CT-02, including to a post-emergence application of BCS-CT-02 tank mixed with either glyphosate or glufosinate-ammonium, for glyphosate or glufosinate-ammonium tolerant hybrids, respectively.

Conclusion

PMRA has reviewed information provided in support of the registration of BCS-CT-02. Based on this review, BCS-CT-02 is acceptable for registration.

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