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Evaluation Report for Category B, Subcategory B.3.2 Application

Application Number: 2014-5128
Application: B.3.2 - Change Application Timing
Product: Armezon Pro
Registration Number: 32148
Active ingredients (a.i.): Dimethenamid-P + Topramezone
PMRA Document Number : **2594242**

Purpose of Application

The purpose of the application was to register Armezon Pro for use as a pre-emergent herbicide in field corn. Armezon Pro, formulated as an emulsifiable concentrate, is a combination of two registered active ingredients: dimethenamid-P at 630 g/ L and topramezone at 12.5 g/ L. Armezon Pro can be tankmixed with glyphosate and atrazine.

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

The use of Armezon Pro on field corn is not expected to result in potential occupational or bystander exposure over the registered uses of topramezone and dimethenamid-P. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

Previously reviewed residue data from field trials and processing studies conducted on field corn for dimethenamid-P, topramezone, atrazine and glyphosate were reassessed in the framework of this petition.

Residues of dimethenamid-P, topramezone, atrazine and glyphosate are not expected to exceed the currently established MRLs on field corn following one pre-emergent application of Armezon Pro tank mixed with atrazine and glyphosate to field corn. Therefore, the dietary exposure to the field corn raw agricultural commodity and processed fractions when treated with Armezon Pro, used alone and when tank-mixed with atrazine and glyphosate, will not pose an unacceptable risk to any segment of the population, including infants, children, youth, seniors and females.

Environmental Assessment

Armezon Pro reflects other registered uses for the individual active ingredients (topramezone and dimethenamid-p) and did not represent an increased risk to the environment from the use of Armezon Pro as a pre-emergent herbicide on field corn.

Value Assessment

Value information submitted included data from eight field trials conducted in Manitoba, Ontario, and Quebec in 2013. Efficacy of Armezon Pro + Aatrex 480 was evaluated and as well directly compared to that of Frontier Max + Armezon + Aatrex 480 at the same a.i./ha rates per hectare. Efficacy of Roundup WeatherMax in tank mix with Armezon Pro + Aatrex 480 was also evaluated.

Mean control of redroot pigweed, common ragweed, lamb's-quarters, large crabgrass, barnyard grass, green foxtail, yellow foxtail, old witchgrass, and wild mustard following the pre-emergent application (to weeds) of BAS 667 03 H + Aatrex 480 was acceptable. Furthermore, the pre-emergent control of these weeds is labelled for either Aatrex 480 or Frontier Max. Therefore, the inclusion of control of these weeds with the pre-emergent application of Armezon Pro + Aatrex 480 is supported.

Data from one trial supported stinkweed control with the pre-emergent application (to weed) of Armezon Pro + Aatrex 480.

Mean weed control following the post-emergent application (to weeds) of Armezon Pro + Aatrex 480 was comparable to that of Armezon + Frontier Max + Aatrex 480 at the same a.i. rates per hectare. Therefore, it can be concluded that the efficacy of dimethenamid-P and topramezone in co-formulation was comparable to these in the tank mixture. Therefore, the weeds controlled and suppressed with the post-emergent application of Frontier Max + Armezon are expected to be controlled or suppressed by the post-emergent application of Armezon Pro.

As glyphosate is registered for use with the tank mixture of Armezon + Frontier Max + Aatrex 480, it is supported to be included as an option with the treatment of Armezon Pro + Aatrex 480. Data from the field trials confirmed that glyphosate is compatible with the treatment of Armezon Pro + Aatrex 480.

Crop tolerance data (i.e., percent injury and grain yield) from seven field trials demonstrated that field corn can be expected to have an adequate margin of crop safety to the pre-emergent applications of BAS 667 03 H + Aatrex 480 and Armezon Pro + Aatrex 480 + glyphosate. Furthermore, the use pattern and rate for the post-emergent application of Armezon Pro are similar to those for Frontier Max + Armezon.

In Canada, there are a wide range of herbicide options available for corn producers. Despite the many herbicide options available, corn producers continue to face challenges including: herbicide resistant weed species, rotational crop restrictions, application timing restrictions, etc.

Armezon Pro, with two distinct herbicide modes of action dimethenamid-P (Group 15) and topramezone (Group 27), and tank mix compatibility with atrazine (Group 5) and/or glyphosate (Group 9) provides corn producers with a useful pesticide solution against a broad spectrum of annual broadleaf and grassy weeds, both emerged and later flushing.

Based on the weight of evidence, the proposed registration of Armezon Pro as a pre-emergent

application for weed control in field corn has value and can be supported.

Conclusion

The PMRA has reviewed the information provided in support the pre-emergent application of Armezon Pro in field corn. Based on the results of this review, the pre-emergent application of Armezon Pro in field corn is acceptable for full registration.

References

PMRA # 2466741 2014, Value 10- efficacy- application to register BAS 677 03 H, DACO: 10.2, 10.2.3, 10.2.3.1, and 10.2.3.3.

PMRA # 2466744 2014, Value 10- non-safety adverse effects- application to register BAS 677 03 H, DACO: 10.3, 10.3.1, and 10.3.2.

2115788	2008, Data submitted by the ARTF to Support Review of Agricultural Transfer Coefficients, DACO: Memo, CBI
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