



Evaluation Report for Category C, Subcategory 3.10 Application

Application Number: 2007-0219
Application: Category C, Subcategory 3.10
Product: Arrow 240EC
Registration Number: 28224
Active ingredients (a.i.): clethodim at 240 g/L
PMRA Document Number : 1462129

Background

Arrow 240EC is registered for post-emergence application at 30 - 91.2 g a.i./ha on several broadleaved crops, including soybean, for control of foxtail (green, yellow), wild oats, volunteer cereals (wheat, barley, oats), barnyard grass, witchgrass, fall panicum, proso millet, volunteer corn, volunteer canary grass, Persian darnel, crabgrass (smooth and large), and quackgrass.

A number of glyphosate products are registered for post-emergent use in glyphosate tolerant soybeans including Roundup Original and Roundup Weathermax. Arrow 240EC tank-mixed with glyphosate was proposed by the registrant to control emerged volunteer glyphosate tolerant corn and other broadleaf weeds in addition to the annual grasses controlled by Arrow 240EC. 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 amend the registration of Arrow 240EC herbicide to include a tank mixture with glyphosate-only herbicides registered for use on glyphosate tolerant soybeans, such as Roundup Original (Reg. No. 13644) and Roundup WeatherMax (Reg. No. 27487) plus MANA X-Act surfactant (Reg. No. 28225). The tank mixture is intended for post-emergent application at a rate of 45.6 g a.i./ha Arrow 240EC plus 900-1800 g a.e./ha glyphosate plus 0.5% v/v X-Act surfactant in glyphosate tolerant soybeans developed from the first trifoliolate leaf stage through to flowering for control of volunteer glyphosate tolerant corn in addition to the weed species listed on the labels of Arrow 240EC and the glyphosate herbicide product.

Chemistry Assessment

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

Health Assessments

Health assessments were not required since the only change to the use pattern was to add glyphosate as a tank mix partner.

Environmental Assessment

An environmental assessment was not required since the only change to the use pattern was to add glyphosate as a tank mix partner.

Value Assessment

Reports from 6 replicated field trials that were conducted in 2005 at 6 locations in Ontario were submitted for review. These trials were conducted to generate data on the effectiveness of the combination of Arrow 240EC + Roundup Original or Roundup Weathermax and X-Act surfactant applied post-emergence in glyphosate tolerant soybeans.

Control of planted glyphosate tolerant corn (to simulate volunteer glyphosate tolerant corn) following an application of the proposed tank mixture was acceptable. The level of control of broadleaved weeds listed on the labels of Roundup Original or Roundup WeatherMax in the tank mixture treatment was similar to that observed in separate treatments of Roundup Original or Roundup WeatherMax. The level of control of grassy weeds listed on the labels of Arrow 240EC or glyphosate (e.g. Roundup Original and Roundup WeatherMax) in the tank mixture treatment was similar to that observed in separate treatments of Arrow 240EC or glyphosate.

Crop injury was either absent or slight and yields were acceptable following an application of the proposed tank mixture of Arrow 240EC + Roundup Original or Roundup Weathermax and X-Act surfactant.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the information sufficient to amend the registration of Arrow 240EC Herbicide to include the proposed tank mixture of Arrow 240EC with glyphosate plus X-Act surfactant for post-emergence use on glyphosate tolerant soybeans applied from the 1st trifoliolate through to flowering.

References

A. LIST OF STUDIES/INFORMATION SUBMITTED BY REGISTRANT

VALUE

PMRA 1362649	2006. Value Summary. DACO: 10.1. pp 9.
PMRA 1362651	2005. Arrow 2 EC (Clethodim) Efficacy on RR Soybeans. DACO: 10.2.3.3(B),10.3.2(A). pp 31.
PMRA 1362652	2005. Arrow 2 EC (Clethodim) Efficacy on RR Soybeans. DACO: 10.2.3.3(B),10.3.2(A). pp 26.
PMRA 1362653	2005. Arrow 2 EC (Clethodim) Efficacy on RR Soybeans. DACO: 10.2.3.3(B),10.3.2(A). pp 26.
PMRA 1362654	2005. Arrow 2 EC (Clethodim) Efficacy on RR Soybeans. DACO: 10.2.3.3(B),10.3.2(A). pp 35.
PMRA 1362655	2005. Arrow 2 EC (Clethodim Study) Soybeans. 2005-CLETH-01-Site 1. DACO: 10.2.3.3(B),10.3.2(A). pp 30.
PMRA 1362656	2005. Arrow 2 EC (Clethodim Study) Soybeans. 2005-CLETH-01-Site 2. DACO: 10.2.3.3(B),10.3.2(A). pp 24.

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