Health Canada Santé Canada

Evaluation Report for Category B, Subcategory 3.12 Application

Application Number: 2008-2315
Application: New host
Product: Equinox EC Herbicide
Registration Number: 27603
Active ingredients (a.i.): Tepraloxydim
PMRA Document Number: 1760344

Purpose of Application

The purpose of this application is to add imazethapyr and imazamox tolerant canola quality *Brassica juncea* (herein referred to as *Brassica juncea*) to the Equinox EC Herbicide label (Registration Number 27603; 200 g tepraloxydim/L) for use in the Prairie Provinces and the Peace River region of British Columbia. The maximum proposed application rate is 0.2 L/ha (40 g ai/ha), post-emergent.

The currently registered uses of Equinox EC Herbicide are for post-emergent control of certain annual grasses and the perennial grass, quackgrass, in flax, dry peas, lentils and canola up to the maximum application rate of 50 g a.i./ha.

Chemistry Assessment

A chemistry assessment was not required.

Health Assessments

The proposed use of the end-use product, Equinox EC Herbicide, on *Brassica juncea* falls within the currently registered use pattern for the active ingredient. No unacceptable risk is expected when workers follow the label directions and wear the personal protective equipment identified on the label.

For the purpose of setting MRLs, *Brassica juncea* is referred to as mustard seeds (oilseed type) and as per PRO2003-02, can be supported based on canola residue data. Previously reviewed residue data from field trials conducted in/on canola (rapeseed) were reassessed in the framework of this petition. In addition, a processing study with treated rapeseed was also reassessed to determine the potential for concentration of residues of tepraloxydim into processed commodities.

Maximum Residue Limit(s)
Based on the maximum residues observed in other oilseeds treated with tepraloxydim according

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to label directions, maximum residue limits (MRLs) to cover residues of tepraloxydim including metabolites convertible to GP and OH-GP of 0.3 ppm in/on mustard seeds (oilseed type) is proposed. Residues of tepraloxydim in processed commodities not listed in Table 1 are covered under established MRLs for the raw agricultural commodity (RAC).

TABLE 1. Summary of Field Trial and Processing Data Used to Establish Maximum Residue Limit(s) (MRLs)

Commodity	Application Method/ Total Application Rate	PHI (days)	Residues (ppm)		Experimental Processing Factor	Currently Established MRL	Recommended MRL
			Min	Max			
Canola	Broadcast foliar application/ 34 g a.i./ha	58-61	<0.10	0.26	--	None	0.3 ppm [mustard seeds (oilseed type)]

Following the review of all available data, an MRL of 0.3 ppm for mustard seeds (oilseed type) is recommended to cover residues of tepraloxydim including metabolites convertible to GP and OH-GP. Residues of tepraloxydim in mustard seed commodities at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The maximum application rate for tepraloxydim on *Brassica juncea* falls within the application rate for other crops on the Equinox EC Herbicide label. As a result, the expansion of this use to *Brassica juncea* does not represent a significant increase in exposure to the environment relative to the other registered uses on flax, dry peas, lentils and canola. A terrestrial buffer zone of 1 metre has been added to the label to protect non-target terrestrial plants along with other statements to mitigate environmental risk.

Value Assessment

Crop tolerance and yield data were submitted from a total of 7 field trials conducted on 2 imazethapyr and imazamox tolerant canola quality *Brassica juncea* varieties throughout Alberta, Saskatchewan and Manitoba in 2007. The crop injury and yield data provided indicate Equinox EC Herbicide is safe for use on *Brassica juncea* when applied at the maximum proposed rate of 0.2 L/ha (40 g a.i./ha) when the crop has emerged through to the 6-leaf growth stage. Based on the data provided, the addition of imazethapyr and imazamox tolerant canola quality *Brassica juncea* as a new host crop to the Equinox EC Herbicide label can be supported from a value perspective.

Conclusion

The PMRA has completed an assessment of available information for Equinox EC Herbicide and has found the information sufficient to support the addition of imazethapyr and imazamox tolerant canola quality *Brassica juncea* on the label.

References

1607775 2008. Application for Equinox EC (BAS 620 00H) Herbicide for use on CLEARFIELD ® *Brassica juncea* (imazrthapyr and imaxamox tolerant *Brassica junicea*). DACO 10.

1607777 2007. Trial Reports. BASF Canada Inc. p. 59.

492314 2001. BAS 620 00 H Herbicide with Dash HC Tier II - Vegetative vigor non-target phytotoxicity study. Laboratory Study No. 46543. Study No. 66846. Document No. 2001/5001532. DACO 9.8.4., 9.8.6.

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