

Evaluation Report for Category B, Subcategory 3.12 and 7.0 Application

Application Numbers: 2010-5066, 2010-5067, 2010-5068
Application: Labels – New Site or Host
Reinstatement of Registered Product
Products: Primextra II Magnum Agricultural Herbicide, Primextra II
Magnum Herbicide, and Aatrex 480 Herbicide
Registration Numbers: 29358, 25730 and 18450
Active ingredients (a.i.): Aatrex [ATZ]
PMRA Document Number: 2275351

Background

Syngenta Crop Protection Inc. voluntarily withdrew the distribution, sale and use of atrazine end-use products in British Columbia prior to the completion of the re-evaluation of atrazine (RVD2007-05 – *Atrazine (Environmental Assessment)*). Aatrex 480 Herbicide contains the active ingredient atrazine at 480 g a.i./L; both Primextra II Magnum Herbicide and Primextra II Magnum Agricultural Herbicide contain 320 g/L atrazine as well as an additional herbicidal active ingredient metolachlor at 400 g/L. All three end-use products are currently registered nationwide for use on corn to control labeled weeds (with the exception of BC). The active ingredient metolachlor is registered for use nationwide to control labeled weeds on a variety of vegetable crops, fruit trees and outdoor ornamentals.

The re-evaluation of atrazine was completed in 2007 (PACR2007-05 – *Re-evaluation of Atrazine (Environmental Assessment)* and RVD2007-05 – *Atrazine (Environmental Assessment)*). The initial environmental risk assessment indicated that atrazine may pose a risk to salmon smolts during their sensitive migration period from freshwater to seawater. Because Syngenta voluntarily withdrew atrazine (distribution, sale and use) for BC during re-evaluation, the risk to salmonids undergoing smoltification was determined based on exposure to atrazine from its use in the Eastern Maritime Provinces only. Atrazine was shown to pose a risk to salmon smolts (RQ = 64) based on modeled EECs (32 µg/L for peak concentration) for an exposure scenario specific to Nova Scotia during the sensitive salmon smolt migration period (NOEC = 0.5 µg/L from a study by Waring and Moore, 2004). Based on the available monitoring data for the Eastern maritime provinces, however, the risk to migrating salmon smolts to atrazine was shown to be low (RQ = 0.3). Atrazine is registered solely for use on corn and the majority of the East coast surface water concentration data were not collected in areas of corn production. In addition, none of the water samples were collected at times that coincide with the smolt migration period. Given the limited surface water monitoring data available for atrazine in the Maritime Provinces to assess the risk to salmonids undergoing smoltification, the PMRA concluded that monitoring is necessary to assess the exposure of salmon smolts to atrazine during the sensitive smolt migration period.

As a condition of continued registration, Syngenta Crop Protection Inc. was required to conduct a surface water monitoring study in potential freshwater salmon bearing habitat on the east coast. The study was conducted in the spring/summer of 2008 and a final report was submitted to the PMRA in July 2009. The data provide an indication of the presence and levels of atrazine and its transformation products in three rivers considered to be representative of the worst case for potential exposure to atrazine among rivers in the Maritimes Provinces in which salmon populations might be present in agricultural watersheds where corn is grown. Residues of atrazine and its transformation products (DEA, DIA and DACT) were not detected at or above the LOD (0.02 µg/L). As such, atrazine is not expected to pose an unacceptable risk to salmonids undergoing smolt migration on the east coast.

All environmental data requirements listed as a condition of continued registration of atrazine (RVD2007-05 – *Atrazine (Environmental Assessment)*) have been satisfied. The reinstatement of Aatrex 480 Herbicide and the use of Primextra II Magnum Herbicide and Primextra II Magnum Agricultural Herbicide in the province of BC would require a risk assessment specific to atrazine exposure of salmonids undergoing smoltification and migration in BC waters.

Purpose of Application

The purpose of this application was the reinstatement of Aatrex 480 Herbicide (registration number 18450; application number 2010-5068) in the province of BC. At the same time, Syngenta applied for use of Primextra II Magnum Herbicide (registration number 25730; application number 2010-5067) and Primextra II Magnum Agricultural Herbicide (registration number 29358; application number 2010-5066).

Chemistry, Health and Value Assessments

Chemistry, health and value assessments were not required for these applications.

Environmental Assessment

Additional data were required to support the reinstatement of Aatrex 480 Herbicide and the registration of Primextra II Magnum Agricultural Herbicide and Primextra II Magnum Herbicide for use in the province of British Columbia. As a result, a study was provided by the registrant that investigated the effects of atrazine on the survival and iono-regulatory performance on salmon smolts under realistic salinity-freshwater exposure conditions, and additional published studies, relevant to assessing the exposure risk of salmon smolts to atrazine during the sensitive smolt migration periods, were made available. Based on the analysis of these studies, an appropriate endpoint for the aquatic risk assessment was determined. Water modelling results (estimated environmental concentrations), surface water monitoring data and the determined endpoint were then used to conduct a risk assessment. The risk assessment concluded that the potential risk to salmon smolts undergoing smoltification and migration in BC is acceptable. The Pest Management Regulatory Agency has found the information provided to be sufficient to reinstate Aatrex 480 Herbicide and register Primextra II Magnum Agricultural Herbicide, Primextra II Magnum Herbicide.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided in support of the products and has found the information sufficient to reinstate Aatrex 480 Herbicide and register Primextra II Magnum Agricultural Herbicide and Primextra II Magnum Herbicide.

References

A. APPLICANT SUPPLIED INFORMATION

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B. ADDITIONAL INFORMATION CONSIDERED

i) Published Information

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