

## Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4, 3.13 Application

**Application Number:** 2013-5210  
**Application:** New EP Chemistry-Guarantee, Identity of Formulants, Proportion of Formulants,  
New or Changes to Product Labels-Precautions  
**Product:** Grazon XC Herbicide  
**Registration Number:** 31642  
**Active ingredients (a.i.):** 2,4-D, present as choline salt  
Picloram, present as triisopropanolamine salt  
**PMRA Document Number:** 2412211

### Purpose of Application

The purpose of this application was to register a new herbicide product intended for application on rangeland and permanent pastures, and other non-cropland areas in western Canada for control of trees and deep-rooted perennial and biennial broadleaf weeds.

### Chemistry Assessment

Grazon XC Herbicide is formulated as a solution containing 2,4-D, present as choline salt, at nominal concentration of 360 g/L and picloram, present as triisopropanolamine salt, at nominal concentration of 97.5 g/L. This end-use product has a density of 1.20-1.22 g/mL and pH of 6.8-7.5. The chemistry requirements for this product have been fulfilled.

### Health Assessments

Grazon XC Herbicide was of low acute oral ( $LD_{50} = 2500$  mg/kg body weight (bw)), dermal ( $LD_{50} > 5000$  mg/kg) and inhalation ( $LC_{50} > 6.05$  mg/L) toxicity. It is moderately irritating to rabbit eye and minimally irritating to the skin of the rabbit. It is a weak skin sensitizer by the local lymph node assay in mice.

The use of the new end-use product Grazon XC Herbicide on rangeland, permanent pastures and non-cropland areas in Western Canada is not expected to result in potential occupational or bystander exposure over the registered use of 2,4-D and picloram. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

No new residue data for picloram or 2,4-D were submitted to support the registration of the new end-use product Grazon XC Herbicide for use in Western Canada on rangeland, permanent pastures, and non-cropland areas. Previously reviewed residue data and scientific rationales were reassessed in the framework of this petition. The registration of the new end-use product Grazon XC Herbicide, containing picloram formulated as amine salt and 2,4-D formulated as choline salt, is not expected to alter the residues in animal commodities resulting from feeding and grazing of pasture and rangeland treated with picloram and 2,4-D. Residues of picloram and of 2,4-D in/on livestock matrices will be covered under the MRLs established for animal commodities. Therefore, the dietary exposure to picloram or to 2,4-D is not expected to increase and will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

### **Environmental Assessment**

The Grazon XC Herbicide label includes buffer zones for the 6.2 L/ha rate, the same as those for the 9.3 L/ha rate on the registered Grazon Herbicide (Registration Number 27634) label. With the inclusion of the required buffer zones, additional environmental risks are not anticipated with the use Grazon XC.

### **Value Assessment**

Value information including data from a total of 29 field trials conducted in Canada and the US over a three year period was submitted for review. Efficacy and host safety of Grazon XC Herbicide applied alone or with a silicon-based surfactant or a non-ionic surfactant was directly compared to the registered treatment of Grazon Herbicide (Reg. No. 27634) applied alone or with the respective surfactant at the same active ingredient (a.i.) rate per hectare.

The efficacy of Grazon XC Herbicide for control of a number of broadleaf weeds (including annual, biennial, and perennial), woody brush, and trees was evaluated on one to five occasions. Data from these trials demonstrated that the level of control of each of these weeds, woody brush, and trees following application of Grazon XC Herbicide alone or with a surfactant was comparable to that observed following application of the registered treatment of Grazon Herbicide alone or with the same surfactant. Therefore, all efficacy claims registered for Grazon Herbicide are supported for inclusion on the Grazon XC Herbicide label.

The host safety of Grazon XC Herbicide was investigated for Bermuda grass orchard grass, tall fescue, and mixed grass species in 12 of the submitted trials. Data from these trials demonstrated that grass injury following application of Grazon XC Herbicide alone or with a listed surfactant was comparable to that observed following application of the registered treatment of Grazon Herbicide alone or with the same surfactant. Therefore, all labeled uses for Grazon Herbicide are supported for inclusion on the Grazon XC Herbicide label.

Since the maximum rate labeled for Grazon Herbicide is 9.3 L/ha (equivalent to 6.2 L/ha Grazon XC Herbicide), the maximum rate of 6.2 L/ha is acceptable for Grazon XC Herbicide.

Registration of a more concentrated formulation of Grazon XC Herbicide will allow users to spray more acreage using the same amount of product.

## **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to support the registration of the new end-use product Grazon XC Herbicide.

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