

## Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4, 2.5, 3.1, 3.4 and 3.10 Application

**Application Number:** 2009-2514  
**Application:** New End-use Product Chemistry: Guarantee, identity and proportion of formulants, and formulant type  
New End-use Product Label: Application rate increase, tank mix and application method  
**Product:** Fluroxypyr WDG Herbicide  
**Registration Number:** 30667  
**Active ingredients (a.i.):** Fluroxypyr  
**PMRA Document Number :** 2046793

### Purpose of Application

The purpose of this application was to register a new commercial end-use product, Fluroxypyr WDG Herbicide (guarantee: fluroxypyr, 27.8%, present as 1-methylheptyl ester), for the post-emergent control of annual broadleaved weeds including cleavers and certain ALS-resistant broadleaved weeds such as kochia in spring wheat, durum wheat, and spring barley. Fluroxypyr WDG Herbicide is also to suppress hemp-nettle, common chickweed and wild buckwheat. Fluroxypyr WDG Herbicide is based on the registered precedent products Starane Herbicide (Registration number 24815) and Starane II Herbicide (Registration number 29463), and has the same uses and rates as the precedents.

### Chemistry Assessment

Fluroxypyr WDG Herbicide is a wettable granule containing the active ingredient fluroxypyr, present as 1-methylheptyl ester, at a nominal concentration of 27.8%. This product has a density of 0.6735 g/mL and pH of 6.36 (1% solution). The chemistry requirements for Fluroxypyr WDG Herbicide have been completed.

### Health Assessments

Fluroxypyr WDG Herbicide is of low acute toxicity by the oral, dermal, and inhalation routes in rats. It is moderately irritating to the rabbit eye but is only slightly irritating to the rabbit skin. The formulation is not a skin sensitizer in guinea pigs.

No new food residue chemistry data were submitted in support of the current application. The use directions for Fluroxypyr WDG Herbicide are similar to those on the registered Starane Herbicide label. Based on the early timing of application of Fluroxypyr WDG Herbicide, any changes in formulation are not expected to impact the magnitude of fluroxypyr residues in/on wheat and barley commodities. Dietary exposure to residues of fluroxypyr in/on wheat and

barley treated according to the label directions is therefore not expected to increase for any segment of the population.

Fluroxypyr WDG Herbicide for use on wheat and barley to control/suppress broadleaved weeds fits within the registered use pattern for fluroxypyr, except for the formulation type. The exposure for mixers, loaders, and applicators was calculated and no risks of concern were identified. Exposure to postapplication re-entry workers is not expected to exceed the current exposure to registered products.

### **Environmental Assessment**

An environmental assessment of Fluroxypyr WDG Herbicide for ground application on spring wheat, durum wheat and spring barley has concluded that no-spray buffer zones are required to mitigate risk to non-target plants and aquatic organisms from spray drift. Environmental concerns have been mitigated through adequate statements on the product label.

### **Value Assessment**

Confirmatory data from a total of 19 field trials conducted in Alberta, Manitoba, and Saskatchewan in 2010 and 2011 were submitted for review. Efficacy and crop safety of Fluroxypyr WDG Herbicide plus a recommended non-ionic surfactant (NIS), or in tank mix with 2,4-D Ester plus a NIS, were directly compared to Starane Herbicide alone or in tank mix with 2,4-D Ester in these trials.

The efficacy of Fluroxypyr WDG Herbicide plus a NIS and/or Fluroxypyr WDG Herbicide plus 2,4-D Ester plus a NIS for control of cleavers, kochia, volunteer flax, hemp-nettle, wild buckwheat, lamb's-quarters, and wild mustard was visually assessed on one to three occasions during the growing season. The level of control of these weeds following the application of Fluroxypyr WDG Herbicide plus a NIS and Fluroxypyr WDG Herbicide plus 2,4-D Ester plus a NIS was comparable to that of Starane Herbicide alone and Starane Herbicide plus 2,4-D Ester, respectively.

Crop tolerance (visually assessed as a percentage relative to an untreated check) of two spring wheat varieties following applications of Fluroxypyr WDG Herbicide at the maximum labeled rate (144 g a.i./ha) plus a NIS and in tank mix with 2,4-D Ester plus a NIS was reported in three trials. Minor or no crop injury to spring wheat was observed for the Fluroxypyr WDG Herbicide treatments and injuries to spring wheat with the Fluroxypyr WDG Herbicide treatments were comparable to that with the Starane Herbicide treatments.

Crop tolerance of one spring barley variety following the same herbicide treatments at the same rates was reported in one trial. Crop injury data indicated that spring barley exhibited an adequate margin of crop safety to Fluroxypyr WDG Herbicide applied with a NIS.

Based on the evidence made available, it can be concluded that the efficacy of Fluroxypyr WDG Herbicide applied with a NIS or in tank mix with 2,4-D Ester plus a NIS is agronomically similar to that of Starane Herbicide applied alone or in tank mix with 2,4-D Ester. The registration of Fluroxypyr WDG Herbicide can be supported from an efficacy standpoint as per label

instruction.

## Conclusion

The PMRA has completed an assessment of available information for Fluroxypyr WDG Herbicide and has found the information sufficient to support the registration of Fluroxypyr WDG Herbicide.

## References

| PMRA Document Number | Reference  |
|----------------------|--|
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| 2033433              | 2011. Value data to support the registration of Fluroxypyr WDG Herbicide. DACO: 10.1   |
| 2114420              | 2011. Value data to support the registration of fluroxypyr WDG (ARY-0548-003) Herbicide applied as a post-emergence treatment. Supplement 1. DACO: 10.2.3  |
| 1780322              | 2009, Product Chemistry Data to Support the Registration of Fluroxypyr WDG Herbicide. DACO: 3.1.1,3.1.2,3.1.3,3.1.4,3.5,3.5.10,3.5.11,3.5.13, 3.5.15,3.5.4,3.5.5 CBI   |
| 1780323              | 2008, Obtain 40 WDG. Product Identity and Composition, Description of Materials Used to Produce the product, Description of Formulation process, Discussion of Formation of Impurities, and Certified Limits. DACO: 3.2.1, 3.2.2,3.2.3,3.3.1,3.3.2,3.4.1,3.4.2 CBI |
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| 2114419              | 2011, Obtain 40% WDG Herbicide: Storage Stability and Corrosion Characteristics. DACO: 3.5.10,3.5.14   |
| 1780328              | 2008, Obtain 40 WDG - Acute oral toxicity Up and Down Procedure in rats, Report 25643. DACO: 4.2.1   |
| 1780329              | 2008, Obtain 40 WDG - Acute dermal toxicity study in rats - Limit test, Report 25644. DACO: 4.2.2  |
| 1780331              | 2008, Obtain 40 WDG - Acute inhalation toxicity study in rats - Limit test, Report 25645. DACO: 4.2.3  |
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| 1780334 | 2008, Obtain 40 WDG - Dermal sensitization study in guinea pigs (Buehler Method), Report 25648. DACO: 4.2.6 |

ISSN: 1911-8082

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