

Evaluation Report for Category B, Subcategory 3.10, 3.11, 3.5 Application

Application Number: 2013-0880
Application: B.3.10 (Product Labels – Tank Mixes)
B.3.11 (Product Labels – New Pests)
B.3.5 (Product Labels – Rotational Crops\Plantback Interval)
Product: GF-1352 Herbicide
Registration Number: 30162
Active ingredients (a.i.): Florasulam (FRA)
PMRA Document Number: 2300820

Background

GF-1352 Herbicide has been registered since September 19, 2011. The active ingredient, florasulam, is classified as a Group 2 herbicide according to the Weed Science Society of America system of herbicide classification according to mode of action. GF-1352 Herbicide is applied at 5 g a.i./ha (20 g product/ha) in combination with 0.2% v/v of Agral 90 post-emergence to spring wheat, including durum, winter wheat and spring barley at the 2- to 6-leaf stage for the control or suppression of several broadleaved weed species. It may also be applied in tank mixture with glyphosate for control of emerged annual weeds prior to seeding these crops or oat or may be applied as an initial treatment in summerfallow fields. GF-1352 Herbicide may not be used in successive years at the same site. GF-1352 Herbicide may only be applied by ground application equipment in 100 L/ha and is geographically restricted to the Prairie provinces and the Peace River region of British Columbia.

Purpose of Application

The purpose of this application was to amend the registration of GF-1352 Herbicide, such that it is more closely aligned with the registration of the precedent product, Florasulam Suspension Concentrate (Registration Number 26891), containing 50 g/L florasulam. The proposed amendments were to add new weeds (cowcockle and narrow-leaved hawk's beard), to add tank mixtures and to add additional rotational crops that may be seeded in the year following application (specifically chickpea, soybean, sunflower, lentil, flax, field bean and yellow mustard).

An additional purpose of this application was to add a three way tank mixture of GF-1352 Herbicide plus a glyphosate herbicide plus Tribenuron Methyl EUP DF 75% Herbicide (Registration Number 25475) for application as an initial treatment in summerfallow, or in the fall prior to seeding winter wheat or in the spring prior to seeding spring wheat (including durum) or barley.

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

No toxicology or occupational exposure assessments were required for this application.

No new residue data were submitted to support the addition of new tank-mix partners and new rotational crops to the GF-1352 Herbicide label. The proposed additional tank-mix partners are currently registered with the same use patterns as proposed. Consequently, no increase in dietary exposure is anticipated. Data on file from confined rotational crop studies indicate that no measurable florasulam residues are anticipated in the rotational crops at a plant-back interval of 30 days. The addition of brown mustard, chickpeas, field beans, flax, Juncea canola, lentils, oriental mustard, soybeans, sunflower and yellow mustard as rotational crops on the GF-1352 Herbicide label will not increase the dietary exposure of florasulam and will not pose an unacceptable risk to any segment of the population including infants, children, adults and seniors.

Environmental Assessment

It is not expected that the new uses of GF-1352 Herbicide would result in any additional environmental risk given that the application rate is the same as for currently registered uses of this product. In addition, the tank mix partners are already registered for these uses. Environmental concerns have been mitigated through adequate statements on the product label.

Value Assessment

Under the original application to register GF-1352 Herbicide (App. No. 2010-2395), GF-1352 Herbicide was determined to be agronomically equivalent to Florasulam Suspension Concentrate Herbicide.

The inclusion of additional tank mixtures for post-emergence application with GF-1352 Herbicide offers growers broader spectrum weed control in small grain cereal crops, including grass weeds for those tank mixtures that include graminicides. As GF-1352 Herbicide is a WSSA Group 2 herbicide belonging to the triazolopyrimidine chemical family, tank mixtures of it with MCPA, 2,4-D, or Curtail M, each of which is (or includes) a Group 4 herbicide, can be expected to mitigate the development of herbicide resistance, for which there are several examples for the Group 2 mode of action (inhibition of acetolactate synthase). The additional rotational crop options will provide growers more flexibility in terms of crop selection in the year following application.

The requested three way tank mixture of 20 g/ha (5 g a.i./ha) GF-1352 Herbicide plus 450-2500 g a.e./ha of a glyphosate herbicide (present as isopropylamine salt, diammonium salt, trimethylsulfonium salt, potassium salt, or dimethylamine salt) plus 10 g/ha (7.5 g a.i./ha) Tribenuron-methyl EUP DF 75% Herbicide is supported in consideration of the following aspects:

- i. the tank mix of 20 g/ha (5 g a.i./ha) GF-1352 Herbicide plus 450 – 2500 g a.e./ha of a glyphosate herbicide (present as isopropylamine salt, diammonium salt, trimethylsulfonium salt, potassium salt, or dimethylamine salt) applied in the fall or spring prior to planting spring wheat (including durum), winter wheat, barley, and oat, or as an initial treatment in summerfallow, for the control of emerged weeds, is registered and included on the label of GF-1352 Herbicide;
- ii. the tank mix of 270-450 g a.e./ha glyphosate (present as isopropylamine salt, diammonium salt, trimethylsulfonium salt, potassium salt) plus 7.5 g a.i./ha tribenuron-methyl (10 g product/ha) applied to summerfallow or prior to seeding spring wheat (including durum) and barley for control of emerged weeds is included in the registrations of Tribenuron Methyl EUP DF 75% Herbicide and Express Toss-N-Go Dry Flowable 75% Herbicide, each of which contain 75% tribenuron-methyl; and,
- iii. there is an existing precedent for a tank mix of florasulam plus tribenuron-methyl, specifically of 1.0 L/ha GF-184 Herbicide (containing 2.5 g/L florasulam and 100 g/L fluroxypyr) plus 10 g/ha Express Toss-N-Go Dry Flowable 75% Herbicide) that is registered for post-emergence (with respect to crop and weeds) to spring wheat (including durum) and spring barley.

This tank mixture, which contains the sulfonyleurea herbicide, tribenuron methyl, may help to mitigate the development of herbicide resistance for those weeds that are not cross resistant to other Group 2 herbicides, e.g., those weeds that may develop resistance to triazolopyrimidine herbicides, e.g., florasulam contained in GF-1352 Herbicide, but remain susceptible to sulfonyleurea herbicides.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the submitted information sufficient to amend the registration of GF-1352 Herbicide to include a control claim for cowcockle, a suppression claim for narrow-leaved hawk's beard, the requested additional tank mixtures, and additional rotational crops. Submitted information was adequate to support application of the three way tank mixture of GF-1352 Herbicide plus a glyphosate herbicide plus Tribenuron Methyl EUP DF 75% Herbicide in summerfallow, in the fall prior to seeding winter wheat, and in spring prior to seeding spring wheat (including durum) and barley.

References

| PMRA No. | Title |
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| 2272632 | 2013, Value Summary Florasulam GF-1352, DACO: 10.1 |

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