

Evaluation Report for Category B, Subcategory 3.12 Application

Application Number: 2021-5991
Application: Changes to Product Labels – New Site or Host
Product: ZIDUA SC
Registration Number: 32542
Active ingredient (a.i.): Pyroxasulfone
PMRA Document Number: 3418406

Purpose of Application

The purpose of this application was to amend the registration of ZIDUA SC (Reg. No. 32542) to add preplant, postplant pre-emergent, or postharvest fall application on faba bean.

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

A toxicology assessment was not required for this application.

The amendment of the ZIDUA SC label to add a preplant, postplant pre-emergent, or postharvest fall application on faba bean is not expected to result in increased occupational or bystander exposures relative to the registered uses of pyroxasulfone. A qualitative risk assessment for mixer, loader, applicator, bystander, and postapplication worker indicated that no health risks of concern are expected from the new use, provided that workers follow the label directions and wear the personal protective equipment identified on the label.

No new residue data for pyroxasulfone in/on faba beans were submitted to support the use expansion of this active ingredient on the ZIDUA SC label. Previously reviewed residue data from field trials conducted in/on representative commodities of Crop Subgroup 6C were re-assessed in the framework of this application. The currently established maximum residue limit (MRL) of 0.15 ppm for Crop Subgroup 6C is based on residue data following pre-emergent and post-emergent applications at a rate of 297 - 311 g a.i./ha, which is 2.5 – 2.6 fold the maximum rates on the ZIDUA SC label. Therefore, the expanded use pattern will not increase dietary exposure to pyroxasulfone. No risks of health concern are anticipated for any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The use of ZIDUA SC on faba beans is not expected to result in risks for the environment when used as directed on the label.

Value Assessment

The expansion of the use pattern of ZIDUA SC to include faba bean as a host crop provides growers another option to manage both grassy and broadleaf weeds in the early-season in this crop. A fall application timing ensures herbicide activation in the early spring, offsets the risk of late activation in years with little moisture, and provides more flexibility to apply this product. The inclusion of faba bean as an immediate plant-back and a rotational crop provides growers more flexibility to manage rescue and rotational crops.

Value information submitted for review included scientific rationales and data from replicated field trials conducted in the Canadian Prairies in 2021. Tolerance data, including visual crop injury and yield data, collectively demonstrated that faba bean as a host crop exhibited adequate margins of tolerance to ZIDUA SC applied as per the label instructions. The scientific rationales, in conjunction with the existing registration of ZIDUA SC in other legumes, supported the addition of a fall application to faba bean as well as faba bean as a plant-back crop in case of host crop failure and a rotational crop that can be planted in the following season after a spring application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to amend the registration of ZIDUA SC to include use on faba beans.

References

PMRA Document Number	Reference
3287960	2021, Application to include faba bean on the ZIDUA SC label, DACO: 10.1,10.2,10.2.1,10.2.2,10.3,10.3.1,10.3.2,10.3.2(A),10.3.3,10.4,10.5,10.5.2,10.5.3,10.5.4,10.5.5
3287962	2021, Individual trial reports - faba beans, DACO: 10.3.2(A)
3287963	2021, Use Site Description for ZIDUA SC - Faba beans, DACO: 5.2

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