



ADVICE SUMMARY

APPLICATION FOR VARIATION OF A REGISTERED CHEMICAL PRODUCT

Product name: AC BIG DOG 540 HERBICIDE
Applicant: POLYGON (NZ) LIMITED
Product number: 66406
Application number: 62629

Purpose of Application and Description of Use: Variation of registration and label approval to vary the instructions relating to the cultivation/planting interval.

Active Constituent(s): GLYPHOSATE

Regulatory Decision:

To grant the application subject to the following conditions:

Standard Conditions of Label Approval

1. Label must contain a Date of Manufacture and Batch Number

For full conditions, refer to the Conditions of Product Label Approval on the APVMA website.

State/External Efficacy Reviewer

In support of the proposed change of the label to reduce the time interval between spraying a light cover of seedling annual weeds and sowing of pasture or crops trial data were presented to demonstrate that the majority of glyphosate uptake occurs within 1 hour of application. Glyphosate uptake (using radio-labelled carbon), rainfastness and efficacy were compared for the Glyphosate product with 540 g/L glyphosate as MIPA salt with industry standard product. Both herbicides were applied to the hard-to-wet adaxial surface of perennial ryegrass, *Lolium perenne* var, Bronsyn alone or with adjuvants to compare the uptake of glyphosate in response to changed spreading and coverage on the leaf surface. Plants were harvested at 20 minutes and 1 or 2 hours after treatment to compare uptake, and efficacy was also assessed at intervals up to harvest at 25 days after treatment.

Applied without adjuvant, the uptake of glyphosate and spread of the two herbicides was similar. When applied with adjuvant, the uptake at 20 minutes was similar; however, uptake for the industry standard product continued for 1 hour and was greater. The Big Dog 540 Herbicide plus adjuvant likely caused significantly greater spread which reduced dose per leaf area and increased drying time leading to reduced uptake beyond 20 minutes. Efficacy for the two products, measured by plant health score, was similar from 16 days after treatment to harvest. The post-spray rain interval was highly significant, simulated rain applied at 20 minutes after treatment reduced efficacy but had no effect when applied at 1 or 2 hours after treatment.

Published data on phytotoxicity of glyphosate on seed germination and seedlings indicated that low soil residues, resulting from normal agricultural practice, would have little impact on establishment of pasture or crops sown immediately after application.

Reviewer therefore concluded that data presented for AC Big Dog 540 Herbicide applied with or without adjuvant, clearly demonstrated that glyphosate uptake during the first hour after application is sufficient to be efficacious and is similar to the commercial registered reference product.

Considering the efficacy reviewer's advice, the APVMA is satisfied that the use of the product would be effective and safe when used in accordance with the proposed label instructions.

Data relied on to provide the advice

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
89199	S	R Gaskin et al	A comparison of glyphosate formulations: uptake & rainfastness on perennial ryegrass	October 2010	Efficacy and safety	Efficacy	Polygon (NZ) Limited	
89198	S	A I Piotrowicz-Cieslak, B Adomas, D J Michalczyk	Different glyphosate phytotoxicity of seeds and seedlings of selected plant species	2010	Efficacy and safety	Efficacy	Public	

* S = Data submitted with the application