

Evaluation Report for Category B, Subcategory 3.4 Application

Application Number: 2021-6280
Application: Changes to Product Labels – Application Method
Product: VectoBac 200G Biological Larvicide
Registration Number: 18158
Active ingredient (a.i.): *Bacillus thuringiensis* subsp. *Israelensis*, serotype H-14, strain AM 65-52
PMRA Document Number: 3381520

Purpose of Application

The purpose of this application was to amend the label for VectoBac 200G Biological Larvicide to add application by remotely piloted aircraft systems (RPAS; i.e., drones).

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

Aerial applications are currently permitted for VectoBac 200G Biological Larvicide. As there are no changes to the pests controlled, use sites, application rates, frequency or timing of applications, the level and routes of occupational and bystander exposure associated with remotely piloted aircraft systems (RPAS) applications are expected to be similar to that of traditional aerial applications with fixed-wing or rotary aircrafts.

The primary routes of exposure for workers involved in RPAS applications are dermal and inhalation, although ocular exposure may also occur. Workers will be required to wear standard personal protective equipment (PPE) to mitigate risks from exposure.

Bystander exposure is possible near application areas; however, this exposure should be minimized if VectoBac 200G Biological Larvicide is applied under the appropriate meteorological conditions. The granular nature of the EP is also not amenable to drift and the drift resulting from RPAS applications is not likely to exceed drift resulting from traditional aerial applications.

The microbial pest control agent (MPCA), *Bacillus thuringiensis* subsp. *Israelensis*, serotype H-14 strain, AM 65-52, is not pathogenic or infectious, and the formulation is of low toxicity to mammals.

The risks to workers and bystanders are acceptable when VectoBac 200G Biological Larvicide is applied by RPAS and label directions are followed.

Toxicology and dietary exposure assessments were not required for this application.

Environmental Assessment

Traditional aerial applications are already permitted for VectoBac 200G Biological Larvicide and there are no changes to the pests controlled, use sites, application rates, frequency or timing of applications. The measured amount of product applied using RPAS is comparable to traditional aerial applications. The calibration of the spreader, flight plan, reconnaissance flights and the use of electronic guidance equipment ensure that the appropriate amount of product is applied to the identified use sites. The granular nature of the EP is not amenable to drift and the drift resulting from RPAS applications is not likely to exceed drift resulting from fixed wing or rotary aircrafts. Therefore, no change in the level of environmental exposure and no additional environmental concerns are expected with application using RPAS. The environmental risks are acceptable when VectoBac 200G Biological Larvicide is applied by RPAS and label directions are followed.

Value Assessment

Calibration data and overall results from trials applying VectoBac 200G Biological Larvicide by a remotely piloted aircraft system (RPAS) indicated performance comparable to that of conventional aerial application, for which the product was already registered. Application by RPAS will allow treatment of sites to which access with ground or conventional aerial application equipment is difficult or impractical, as well as an alternative for other sites.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided and has found it sufficient to support the amendment to the product label for VectoBac 200G Biological Larvicide.

References

| PMRA Document Number | References |
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| 3294762 | 2021, DACO M1.2 VectoBac 200G DACO: M1.2 |
| 3294757 | 2019, Utilisation de drone pour le contrôle biologique des insectes piquers, DACO: M10.0 |
| 3294758 | 2020, Utilisation de drone pour le contrôle biologique des insectes piquers, DACO: M10.0 |
| 3294763 | 2021, Value Summary for the Use of Drones for aerial application of VectoBac 200G, DACO: M10.0 |

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