

Evaluation Report for Category B, Subcategory 3.4 Application

Application Number: 2021-6279
Application: Changes to Product Labels – Application Method
Product: VectoBac 1200L Biological Larvicide
Registration Number: 31062
Active ingredient (a.i.): *Bacillus thuringiensis* subsp. *Israelensis*, serotype H-14, strain AM 65-52
PMRA Document Number: 3386877

Purpose of Application

The purpose of this application was to amend the label for VectoBac 1200L 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 VectoBac1200L 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 ocular, dermal and inhalation. Workers will be required to wear standard personal protective equipment (PPE) to mitigate risk from exposure.

Bystander exposure is possible near application areas; however, this exposure should be minimized if VectoBac 1200L Biological Larvicide is applied under the appropriate meteorological conditions. 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 AM65-52 is not pathogenic or infectious, and the formulation is of low toxicity to mammals.

The risks to workers and bystanders are acceptable when VectoBac 1200L 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 1200L Biological Larvicide and there are no changes to the pests controlled, use sites, application rates, frequency or timing of applications. The calibration of the sprayer, 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 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. Environmental risks are acceptable when VectoBac 1200L Biological Larvicide is applied by RPAS and label directions are followed.

Value Assessment

Calibration data and overall results from trials with two similar products registered for similar use patterns indicated performance of RPAS application comparable to that of conventional aerial application, for which the product was already registered. Application of VectoBac 1200L Biological Larvicide 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 1200L Biological Larvicide.

References

PMRA Document Number	References
3294698	2021, DACO M1.2 VectoLex CG, DACO: M1.2
3294730	2019, Utilisation de drone pour le contrôle biologique des insectes piquers, DACO: M10.0
3294731	2020, Utilisation de drone pour le contrôle biologique des insectes piquers, DACO: M10.0
3294738	2021, Value Summary for the Use of Drones for aerial application of VectoBac 1200L, DACO: M10.0

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