



SPRAYSHOP

AGRI-CHEMICALS AND SPRAY EQUIPMENT



Mosquito (*Aedes australis*)

Active Ingredient:

Contains: 3000 International Toxic Units/ing *Bacillus thuringiensis* sub species *israelensis* (Serotype H14), fermentation solids and solubles, in the form of a water dispersible granule. VectoBac WG is available in a 500g container.

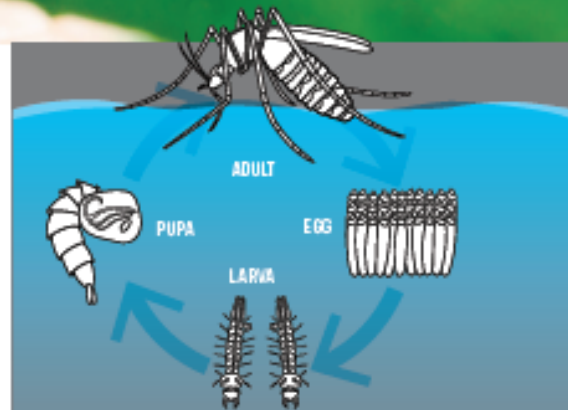


BIOLOGICAL CONTROL OF MOSQUITO LARVAE

Mosquitoes and sandflies are a national nuisance, especially in popular tourist areas and they are also a major health concern. Sandflies and mosquitoes are vectors of some of the world's most severe diseases and account for more human suffering than any other single pest known to man. Mosquitoes and sandflies can be nuisance pests throughout the spring and summer, and their bites cause allergic reactions in most people.

VectoBac Is Highly Effective

VectoBac is a B.t. insecticide that effectively controls mosquito and sandfly larvae in a safe, environmentally friendly way. It offers an effective alternative to synthetic chemicals. VectoBac was successfully used in Napier, Gisborne and more recently Northland to control the Australian Southern Saltmarsh mosquito that carries the Ross River virus. Because of its high level of efficacy and its environmental acceptability VectoBac is rapidly gaining popularity in mosquito control programmes around New Zealand ports, airports and regional parks.



VectoBac Is Fast

VectoBac has a rapid effect on mosquito and sandfly larvae killing them in four to 24 hours. It works on 1st through mid-4th instars. It will not control late-stage 4th instars, pupae or adult mosquitoes. Higher rates must be used in organic environments such as sewage treatment ponds.

VectoBac Is Eco-Friendly

Because VectoBac is a biological larvicide it is ideally suited for public and environmentally sensitive areas. During its ten years of commercial use there has been no reports of adverse effects on the environment. VectoBac has been used throughout the world in all types of breeding sites which include freshwater and salt marshes, sewage lagoons, swamps and bog areas, creeks, streams and rivers. VectoBac is compatible with natural predators such as mosquito fish, flatworms and other beneficial insects and no toxic effects have been demonstrated in mammals, fish, birds and other wildlife such as freshwater crayfish. VectoBac WG is biodegradable granular formulation for safe handling, application, and efficacy. In water it has a half-life of less than seven days and is naturally degraded by aquatic micro-organisms and sunlight leaving no residues. VectoBac is Easy to Apply, and it is diluted down to parts per million for application. It can be applied with any usual farm spray equipment, by backpack or if the pond or dam has some form of run-in, simply by adding it to the inflow water. As VectoBac has an excellent toxicity profile and is not harmful to humans, applicators can handle the product without worrying about being exposed to chemicals.

What is a B.t.?

B.t. (*Bacillus thuringiensis*) is a naturally occurring bacterium found in most environments throughout the world. It is harmless to humans, animals, birds and fish, but lethal to many pest and disease carrying insects. The active ingredient in VectoBac is a strain of B.t. called *Bacillus thuringiensis israelensis* H-14 (B.t.i), which is found in soils and aquatic environments.

Since its discovery in 1978 VectoBac has been used successfully to control mosquitoes and sandflies throughout the world.

How do B.t.'s Work?

B.t. products contain spores and toxic crystals, which when eaten by the insect larvae the bacteria damages the gut causing death. VectoBac is placed in water areas where mosquitoes breed, such as storm water and drainage systems, marine and coastal areas, amenity and effluent ponds. B.t. has remained effective since its introduction more than 30 years ago, due to the synergistic nature of four protein toxins "protoxins" that give B.t. its efficacy. Belonging to three distinct toxin classes, each of which B.t. releases when ingested by target larvae. No commercially available B.t. formulation has ever demonstrated resistance.