

TECHNICAL USE SHEET

VectoMax® FG

Biological Larvicide



VectoMax® FG Biological Larvicide is an advanced mosquito larvicide based on BioFuse™ technology—a patented formulation and manufacturing process that combines the time-proven and environmentally compatible bacterial active ingredients *Bacillus thuringiensis* subsp. *israelensis* strain AM65-52 and *Bacillus sphaericus* strain ABTS-1743 into a single microparticle. The mosquito larvae get a dose of a carefully selected ratio of both toxins when VectoMax FG particles are ingested. VectoMax consists of only *Bti*, *Bsph*, and food-grade (U.S. EPA list 4) inert ingredients. As such, VectoMax has received approval for application in organic crops and sensitive habitats around the world. VectoMax FG has a potency of 50 *Bacillus sphaericus* International Toxin Units (*Bs*/ITU) per milligram against *Culex quinquefasciatus*.

The Combination Advantage

The value of *Bti* strain AM65-52 and *Bsph* strain ABTS-1743 to mosquito control programs worldwide is well established. These unique strains of *Bti* and *Bsph* each offer unique advantages relative to chemical/biochemical insecticides, and they offer relative safety to humans and non-target organisms. *Bti* provides broad-spectrum activity against mosquito larvae, rapid control, and low potential for resistance; while *Bsph* exhibits extended residual control, efficacy in polluted water, and high target specificity.

Application Flexibility

VectoMax FG is available in 10/14 US standard mesh size (1.4–2.0 mm) granules. The granules are designed to be applied by ground or aerial application.

VectoMax FG provides greater application flexibility for direct applications to water:

- Controls all mosquito species
- Can be used in clean and polluted habitats
- Provides up to 28 days of residual control
- The size, shape and density of the granules lessen the potential for off-target application due to aerial drift and enable good penetration of dense vegetation
- Can be purchased in water-soluble pouches for easy-to-use placement applications (e.g., catch basins)



Application Rates

Typical mosquito application rates are 5–20 lbs./acre (5.6–22.4 kg./hectare).

Use higher rates (10–20 lbs/acre, 11.2–22.4 kg/ha) in areas where high densities and late instar larvae predominate, or under conditions where local experience indicates the need for higher rates to achieve extended residual control.

Apply uniformly by aerial or conventional ground equipment. Reapply as needed (up to 28 days under typical environmental conditions).

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Bulk Density

Bulk density should be measured with multiple lots to ensure accurate data. (This varies somewhat with relative humidity and each batch.) However, the following can be used as a general guideline:

Approximately 30–44 lbs./ft³ or 480–704 kg/m³

Coverage

The following table can be used as a general guide in determining rates of VectoMax FG applications:

RATE IN POUNDS/ACRE (kilograms/hectare)	VECTOMAX FG (no. granules per:)	
	Ft ²	M ²
5.0 (5.6)	15–19	167–207
7.5 (8.4)	23–29	252–311
10.0 (11.2)	31–39	335–414
15.0 (16.8)	46–59	502–621
20.0 (22.4)	62–78	670–828

300–370 granules ~ 1 gram

Note: Granules per gram and number of granules per ft²/m² are approximations.

Packaging

VectoMax FG is available in the standard pack size of 40 lb (18 kg) bags. Special bulk orders are available in 1,000 and 1,200 lb super sacks (453 kg and 544 kg, respectively). Check with your local distributor or Valent BioSciences technical representative to see what packaging is available in your area.

