

TECHNICAL USE SHEET

VectoLex[®] WG

Bacterial Larvicide



VectoLex[®] WG (also known as VectoLex WDG) Bacterial Larvicide is a water-dispersible granule mosquito larvicide that contains the time-proven and environmentally compatible bacterial active ingredient *Bacillus sphaericus* strain ABTS-1743. The product has a potency of 650 BsIU/mg. It is designed for use in aqueous spray mixes. VectoLex helps control mosquito populations in polluted waters with the industry's most target-specific biorational for residual control of West Nile virus vectors.

Application Flexibility

The water-dispersible granule formulation offers the storage stability of a dry product with the application versatility of a liquid spray. Consisting of only *Bsph* strain ABTS-1743 and food-grade (U.S. EPA list 4) inert ingredients, VectoLex WG has received approval for application to sensitive habitats in various countries around the world. This versatile formulation allows a variety of application modes and uses for mosquito control.

VectoLex WG provides:

- The industry's most target-specific, environmentally compatible biorational for residual control of West Nile Virus vectors
- Can be used in clean and polluted habitats
- Provides up to 28 days of residual control
- Easy, on-site efficacy evaluations due to its mode of action
- Increased storage shelf life
- Decreased weight to transport
- Effective in spray application as aerosol for difficult-to-control underground drainage systems
- Fermentation consistency significantly reduces lot-to-lot variation relative to other manufacturer products providing greater peace of mind

Applications



VectoLex WG may be applied with conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. The amount of water will depend on weather, spray equipment and mosquito habitat characteristics. Do not mix more VectoLex WG than can be used in a 72-hour period.

Ground Applications

For most ground spraying, 3-10 gallons of water per acre (28.1-93.5 liters of water per hectare) is usually sufficient, but up to 100 gallons per acre (835.4 liters/hectare) may be used to penetrate dense vegetative canopies. Applications may be made with manual backpack sprayers, compressed air sprayers, and small hand pump sprayers. Power equipment such as mist blowers, truck-mounted hydraulic sprayers, and other conventional power sprayers may also be used.

Aerial Applications

For aerial application, VectoLex WG should be applied diluted in 1-10 gallons of water per acre (9.4-93.5 liters/hectare). Generally, 1-3 gallons of water per acre (9.4-28.1 liters/hectare) is sufficient. For application of more than 1 lb of VectoLex WG per acre (1.1 kilograms/hectare), at least 2 gallons of water per acre (18.7 liters/hectare) is recommended. Apply through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers at a dilution sufficient to produce a smooth flowing suspension of material.

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Applications *(continued)*



Many underground storm sewers create a unique challenge to mosquito abatement programs from sampling to mapping to understanding water/air flow characteristics. In addition, the underground tunnels that connect catch basins/manholes are perfect habitats for producing vectors of West Nile virus as it is very difficult (if not impossible) to larvicide these areas with traditional placement applications (e.g., tablets, briquettes, water-soluble pouches). However, based upon extensive field evaluations with VectoLex WG, aerosol applications to these cryptic underground mosquito habitats has been shown to provide effective residual control.

These types of applications have also been shown to be effective through various types of ULV equipment (e.g., Leco[®] ULV cold-fog

machine: Curtis Dynafog[®]/Sewer Fogging attachment: custom-made devised). Specific equipment, atomizers, spray volumes and rates will vary depending on the operational/ environmental situation and programs objectives. In general, rates of 1.0-1.5 lbs (0.45-0.68 kg) mixed in 1.3 gallons (4.9 liters) of water applied at a rate of 2 gallons/acre (18.7 liters/hectare) is recommended. Flow rates should be ~ 10 ounces /minute (300 ml/minute) targeting a volume mean diameter droplet size of 40-80 microns. Final determination of acres treated per “manhole” will vary depending upon distance between manholes. Consult your local Valent Health technical representative to provide additional guidance for this application approach.

Application Rates

AGRICULTURAL/CROP MOSQUITO HABITATS
(such as the following examples)

RATE RANGE

Rice fields, pastures/hay fields, orchards (including citrus groves, peaches, almonds, dates, walnuts), asparagus fields, corn fields, cotton fields, alfalfa fields, vineyards

0.5 1.5 lbs/acre
(0.6-1.7 kg/ha)*

Typical application rates are 0.5-1.5 lbs/acre (0.6-1.7 kg/ha)

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)