



Gnatrol™

BIOLOGICAL LARVICIDE



ACTIVE INGREDIENT:

<i>Bacillus thuringiensis</i> , subspecies <i>israelensis</i> , strain 65-52, fermentation solids and solubles . . .	6.38%
Other Ingredients	93.62%
Total	100.00%

Potency: 600 International Toxic Units (ITU) per milligram (Equivalent to 2.19 billion ITU per gallon; 0.576 billion ITU per liter)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-11

EPA Est. No. 33762-IA-001

List No. 11008

INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
 - 2.1 Hazard to Humans (and Domestic Animals)
 - 2.2 Personal Protective Equipment (PPE)
 - 2.3 User Safety Recommendations
 - 2.4 Environmental Hazards
 - 2.5 Physical or Chemical Hazards
- 3.0 Storage and Disposal
- 4.0 Non-Agricultural Use Requirements
- 5.0 Agricultural Use Site Directions for Use
- 6.0 Agricultural Use Requirements
- 7.0 Chemigation
- 8.0 Greenhouse - Drip (Trickle) and Sprinkler Chemigation
- 9.0 Application Directions
- 10.0 Precautions
- 11.0 Non-Agricultural Use Site Directions for Use
 - 11.1 Application Directions
- 12.0 Notice to User

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0 FIRST AID

If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-89-VALENT (898-2536).

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS) CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

2.2 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.3 User Safety Recommendations

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

2.4 Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated finished drinking water reservoirs or drinking water receptacles intended for human consumption.

2.5 Physical or Chemical Hazards

Diluted or undiluted *Gnatrol* can cause corrosion if left in prolonged contact with aluminum spray system components. Rinse spray system with plenty of clean water after use.

Care should be taken to prevent contact with aluminum aircraft surfaces, structural components and control systems. In case of contact, rinse with plenty of water. Inspect aluminum aircraft components regularly for signs of corrosion.

3.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Storage: Store in a cool [59°F to 86°F (15°C to 30°C)], dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse container.

4.0 NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of the treated areas until sprays have dried.

5.0 AGRICULTURAL USE SITE DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

6.0 AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

7.0 CHEMIGATION

Do not apply this product through any irrigation system unless labeling on chemigation is followed.

Gnatrol can be applied by injection into drip or overhead (sprinkler) irrigation systems.

Apply this product only through: sprinkler including solid set; flood (basin); or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service Specialist, equipment manufacturers or other experts.

Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

8.0 GREENHOUSE — DRIP (TRICKLE) AND SPRINKLER CHEMIGATION

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of the pesticide introduction. As an option to the RPZ the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a water pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials compatible with pesticides and capable of being fitted with a system interlock.

The system must contain a functional check valve, vacuum relief valve and low pressure drain, appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

If *Gnatrol* needs to be diluted prior to injection, material may be mixed separately and then put into the injector. Agitation may be necessary if materials are kept more than one day. *Gnatrol* may be applied continuously.

Where supply tanks are used for continuous application, fill the supply tank with the desired quantity of water. Start mechanical or hydraulic agitation to provide moderate circulation before adding *Gnatrol*. *Gnatrol* suspends readily in water and will stay suspended over normal application periods. Avoid continuous agitation of spray mixture during spraying. Brief recirculation may be necessary if the spray mixture has sat for several hours.

9.0 APPLICATION DIRECTIONS

Fungus Gnat Control

Fungus Gnat Habitat	Suggested Range Rate
Ornamental and nursery plantings in greenhouse or potting soil mixtures.	Light infestation: 16-32 oz/100 gallons* applied as a soil drench.
Vegetable plants such as the following: Tomatoes, leafy and cole crops, cucumbers, peppers and eggplants.	Heavy infestation: 64-128 oz/100 gallons** applied as a soil drench.

* 16-32 oz/100 gallons = 1-2 tsp/gallon

** 64-128 oz/100 gallons = 4-8 tsp/gallon

Apply *Gnatrol* with adequate water by soil drench to sufficiently wet the soil surface above and under benches where larvae are found. Areas under benches should be treated at high rates as this is one of the primary breeding areas. Reapply as needed. In situations where all life forms (eggs, larvae, pupae and adults) are present, such as with existing infestations, make three (3) weekly applications at the suggested rate range for heavy infestations. Regular follow-up applications using the suggested light infestation rates will establish a long term maintenance program.

Gnatrol is a larvicide and will not control adult gnats, therefore, applications must be timed for a stage of development when larvae are present in the soil.

Fungus gnat larvae generally respond to *Gnatrol* treatment within 24 hours following application.

Gnatrol is not known to be phytotoxic to ornamental plant species. However, since all ornamental plant species have not been evaluated, sensitivity to *Gnatrol* should be checked on several plants prior to wide scale usage.

10.0 PRECAUTIONS

Important: *Gnatrol* should not be injected in combination with fertilizers or fungicides containing copper or chlorine, as this may neutralize the active ingredients. (Chlorine levels in potable water supplies should not present a problem with *Gnatrol* performance).

- Do not apply soil drenches to plants under stress, or follow application with excessive amounts of water.
- For best results, apply drenches toward the end of irrigation period.

11.0 NON-AGRICULTURAL USE SITE DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

For use on plants intended for aesthetic purposes and being grown in interior landscapes and indoor ornamental gardens. Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

Do not apply directly to treated finished drinking water reservoirs or drinking water receptacles.

Do not apply this product to the non-agricultural use sites through any type of irrigation system.

11.1 Application Directions

Fungus Gnat Control

Fungus Gnat Habitat	Suggested Range Rate
Indoor ornamental and landscape use	Light infestation: 16-32 oz/100 gallons* applied as a soil drench. Heavy infestation: 64-128 oz/100 gallons** applied as a drench.

* 16-32 oz/100 gallons = 1-2 tsp/gallon

** 64-128 oz/100 gallons = 4-8 tsp/gallon

Apply *Gnatrol* with adequate water by soil drench to sufficiently wet the soil surface. Reapply as needed. In situations where all life forms (eggs, larvae, pupae and adults) are present, such as with existing infestations, make three (3) weekly applications at the suggested rate range for heavy infestations. Regular follow-up using suggested light infestation rates will establish a long term maintenance program.

Gnatrol is a larvicide and will not control adult gnats, therefore, applications must be timed for a stage of development when larvae are present in the soil.

Fungus gnat larvae generally respond to *Gnatrol* treatment within 24 hours following application.

Gnatrol is not known to be phytotoxic to ornamental species. However, since all ornamental plant species have not been evaluated, sensitivity to *Gnatrol* should be checked on several plants prior to wide scale usage.

12.0 NOTICE TO USER

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE CONCERNING THE USE OF THIS PRODUCT OTHER THAN AS INDICATED ON THE LABEL. USER ASSUMES ALL RISK OF USE, STORAGE OR HANDLING NOT IN STRICT ACCORDANCE WITH ACCOMPANYING DIRECTIONS.

Gnatrol is a trademark of Valent BioSciences Corporation.

Products That Work, From People Who Care is a trademark of Valent U.S.A. Corporation.

© 2004 Valent BioSciences Corporation

Registered and Manufactured by:
Valent BioSciences Corporation
870 Technology Way, Suite 100
Libertyville, IL 60048

04-4355/R4

Distributed by Valent U.S.A. Corporation

Products That Work, From People Who Care™

2004-GNT-0001 1/04 AV

FOR MORE INFORMATION:

Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025

1-800-89-VALENT (898-2536) - www.valentpro.com

