



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 20, 2021

Michelle Koularmanis
Senior Regulatory Coordinator
Valent BioSciences, LLC
1910 Innovation Way, Suite 100
Libertyville, IL 60048

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – to add alternate brand names, update the company's address, and update the year on the label
Product Name: VECTOBAC WDG BIOLOGICAL LARVICIDE WATER
DISPERSIBLE GRANULE
EPA Registration Number: 73049-56
Application Date: 04/19/2021
Action Code Case No.: 00297780

Dear Michelle Koularmanis:

The U.S. Environmental Protection Agency (EPA) is in receipt of your application for notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Biopesticides and Pollution Prevention Division (BPPD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records. The alternate brand names: Magic Gardener Fungus Gnat Killer, Gnatrol Home & Garden, and Gnatrol Fungus Gnat have been added to the product's records. You must submit one (1) copy of the final printed labeling with the modifications.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Page 2 of 2
EPA Reg. No. 73049-56
OPP Decision No. 00297780

If you have any questions, please contact Andrew Queen by phone at 703-308-8135 or via email at queen.andrew@epa.gov.

Sincerely,

Daniel Schoeff, Acting Senior Regulator Advisor
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)
Office of Pesticide Programs

[Text in brackets [] indicates optional language or language intended for explanatory purposes to facilitate label review. Thus, this language will often not appear on final printed labeling. Also, this page is present (page 1) to delineate sublabels and will not appear on the final printed labeling.]

VECTOBAC® WDG
BIOLOGICAL LARVICIDE
WATER DISPERSIBLE GRANULE

[Alternate Brand Names: GNATROL DG Biological Larvicide Water Dispersible Granule and GNATROL WDG Biological Larvicide Water Dispersible Granule, [Magic Gardener Fungus Gnat Killer](#), [Gnatrol Home & Garden](#), [Gnatrol Fungus Gnat Killer](#)]

MASTER LABEL

Sub-label A: VectoBac® WDG Biological Larvicide Water Dispersible Granule - Public Health Labeling for Mosquito Larval Control

Sub-label B: VectoBac® WDG Biological Larvicide Water Dispersible Granule - Fungus Gnat Larval Control

Sub-label C: VectoBac® WDG Biological Larvicide Water Dispersible Granule - Sciarid Mushroom Fly Larval Control

Active Ingredient:

<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , Strain AM 65-52 fermentation solids, spores, and insecticidal toxins*.....	37.4%
Other Ingredients.....	62.6%
Total.....	100.0%

*Potency: 3000 International Toxic Units (ITU) per mg of product. Equivalent to 1.36 billion ITU/lb. of product.

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

Produced for:

Valent BioSciences LLC

[1910 Innovation Way, Suite 100 870 Technology Way](#)

Libertyville, IL 60048

EPA Registration No.: 73049-56

EPA Establishment No.: 33762-IA-01

NOTIFICATION

73049-56

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/20/2021

VECTOBAC® WDG
BIOLOGICAL LARVICIDE
WATER DISPERSIBLE GRANULE

[SUB-LABEL A]

For Organic Production

Active Ingredient:

<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , Strain AM 65-52 fermentation solids, spores, and insecticidal toxins*.....	37.4%
Other Ingredients.....	62.6%
Total.....	100.0%

*Potency: 3000 International Toxic Units (ITU) per mg of product. Equivalent to 1.36 billion ITU/lb. of product.

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

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

Produced for:

Valent BioSciences LLC

1910 Innovation Way, Suite 100 ~~870 Technology Way~~

Libertyville, IL 60048

EPA Registration No.: 73049-56

EPA Establishment No.: 33762-IA-01

Net Weight:

Lot No.:

FIRST AID	
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further 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 then first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
<p>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 transportation emergency information. For all other information, call 1-800-89-VALENT (1-800-898-2536).</p>	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing dust or spray mist. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply directly to treated, finished drinking water reservoirs.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

Do not apply this product through any type of irrigation system.

APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

VectoBac[®] WDG Biological Larvicide Water Dispersible Granule (hereafter referred to as VectoBac WDG) is an insecticide for use against mosquito larvae.

Mosquito Larvae Control in Urban and Rural Areas

<u>Mosquito Habitat</u>	<u>Application Rate Range*</u>
Irrigation ditches, roadside ditches, flood water, standing pools, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas,	1.75 - 7.0 oz/acre (50 - 200 g/acre) (125 - 500 g/ha)

tidal water, salt marshes and rice fields.

Direct spray applications to sites where mosquitoes breed. These sites include tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water such as personal rainwater catchment cisterns.

Polluted water such as sewage and animal waste lagoons	7.0 - 14.0 oz/acre (200 - 400 g/acre) (500 - 1000 g/ha)
--------------------------------------------------------	---------------------------------------------------------------

Standing water, which contains mosquito larvae, in fields with growing crops (e.g., alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts) can be treated at the specified application rates.

*Use higher application rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, and/or algae are abundant.

SMALL QUANTITY DILUTION RATES

For when small areas are to be treated, the table below can be used to determine application rates.

Gallons Spray Mixture/Acre (Ounces Needed per Gallon of Spray)

VectoBac WDG

Rates in		Final concentration, ounces/gallon spray		
Ounces/Acre	Grams/A	10 Gal/A	25 Gal/A	50 Gal/A
1.75	50	0.175	0.07	0.04
3.5	100	0.35	0.14	0.07
7	200	0.7	0.28	0.14
14	400	1.4	0.565	0.28

GROUND AND AERIAL APPLICATION (In Urban and Rural Areas)

VectoBac WDG may be applied using conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. For application, first add VectoBac WDG to water to produce a final spray mixture.

The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. For application, fill the mix tank or plane hopper with the desired quantity of water. **Start the mechanical or manual agitation to provide moderate circulation of water before adding VectoBac WDG.** Backpack and compressed air sprayers may be agitated by shaking after adding VectoBac WDG to the water in the sprayer. VectoBac WDG suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. Do not mix more VectoBac WDG than can be used in a 48-hour period. **AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.**

For ground spraying, apply VectoBac WDG at a rate of 1.75-14 oz/acre (50-400 g/acre; 125-1000 g/ha) in 5-100 gallons of water per acre (47-950 liters/ha) using hand-pump, airblast, mist blower, or other spray equipment.

For aerial application, apply VectoBac WDG at a rate of 1.75-14 oz/acre (50-400 g/acre; 125-1000 g/ha) in 0.25-10 gallons of water per acre (2.4-93.5 liters/ha) through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers to provide uniform coverage of the target area.

Rinse and flush spray equipment thoroughly following each use.

AERIAL APPLICATION

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

STORAGE AND DISPOSAL

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

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

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

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling if available or 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.

NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

**VECTOBAC® WDG
BIOLOGICAL LARVICIDE
WATER DISPERSIBLE GRANULE**

[Alternate Brand Name: GNATROL WDG Biological Larvicide Water Dispersible Granule, [Magic Gardener Fungus Gnat Killer](#), [Gnatrol Home & Garden](#), [Gnatrol Fungus Gnat Killer](#)]

[Sub-Label B]

For Organic Gardening

Active Ingredient:

<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , Strain AM 65-52 fermentation solids, spores, and insecticidal toxins*	37.4%
Other Ingredients.....	62.6%
Total.....	100.0%

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

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See inside panel for additional precautionary statements and first aid statements.

Produced for:

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Libertyville, IL 60048

EPA Registration No.: 73049-56

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FIRST AID	
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further 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.
HOTLINE 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 transportation emergency information. For all other information, call 1-800-89-VALENT (1-800-898-2536).	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing dust or spray mist. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- A NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. (Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.)

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

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

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

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 interval. The requirements in this box 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.

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

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 treated areas until sprays have dried.

AGRICULTURAL USE SITE APPLICATIONS

CHEMIGATION

VectoBac[®] WDG Biological Larvicide Water Dispersible Granule (hereafter referred to as VectoBac WDG) can be applied by injection into flood (basin), 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 Specialists, equipment manufacturers or other experts.

Do not connect irrigation system (including greenhouse systems) 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.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

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 preventor (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 flow 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 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 metering 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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Dilute VectoBac WDG in water prior to injection. Agitation of the material to be injected is required to keep the product suspended during the injection cycle.

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 VectoBac WDG. VectoBac WDG 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.

FLOOD (BASIN) CHEMIGATION SYSTEMS

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- 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 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.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Dilute VectoBac WDG in water prior to injection. Agitation of the material to be injected is required to keep the product suspended during the injection cycle.

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 VectoBac WDG. VectoBac WDG 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.

GREENHOUSE SPRINKLER AND DRIP (TRICKLE) CHEMIGATION SYSTEMS

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 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.

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

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment (Sprinkler Chemigation Only).

Dilute VectoBac WDG in water prior to injection. Agitation of the material to be injected is required to keep the product suspended during the injection cycle.

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 VectoBac WDG. VectoBac WDG 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.

APPLICATION DIRECTIONS

Fungus Gnat Larvae Control

Fungus Gnat Habitat	Application Rate Range
Ornamental and nursery plantings in greenhouses or potting soil mixtures	Light infestation: 3.2 to 6.4 oz of VectoBac WDG/100 gallons of water applied as a soil drench
Vegetable plants such as the following: Tomatoes, leafy and cole crops, cucumbers, peppers and eggplants	Heavy infestation: 13 to 26 oz of VectoBac WDG/100 gallons of water applied as a soil drench

Apply VectoBac WDG 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 application 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 application rate range for heavy infestations. Regular follow-up applications using the light infestation application rates will establish a long term maintenance program.

For best results, apply drenches toward the end of irrigation period.

VectoBac WDG 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 VectoBac WDG treatment within 24 hours following application.

ORNAMENTAL PLANT PHYTOTOXICITY

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

USE RESTRICTIONS

Important: VectoBac WDG must not be injected in combination with fertilizers or fungicides containing copper or chlorine as this may neutralize the active ingredient. (Chlorine levels in potable water supplies are not expected to present a problem with VectoBac WDG performance.)

Do not apply soil drenches to plants under stress, or follow application with excessive amounts of water.

NON-AGRICULTURAL USE SITE APPLICATIONS

For use on plants intended for aesthetic purposes and being grown in interior plantscapes 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 this product to the non-agricultural use sites through any type of irrigation system.

APPLICATION DIRECTIONS

Fungus Gnat Larvae Control for Indoor Ornamental and Plantscape Use.

Fungus Gnat Habitat	Application Rate Range
Indoor ornamental and plantscape use	<p>Light infestation: 3.2 to 6.4 oz of VectoBac WDG/100 gallons of water applied as a soil drench</p> <p>Heavy infestation: 13 to 26 oz of VectoBac WDG/100 gallons of water applied as a soil drench</p>

Apply VectoBac WDG 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 (3) weekly applications at the application rate range for heavy infestations. Regular follow-up using light infestation application rates will establish a long term maintenance program.

VectoBac WDG 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 VectoBac WDG treatment within 24 hours following application.

ORNAMENTAL PLANT PHYTOTOXICITY

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

STORAGE AND DISPOSAL

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

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

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

Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling if available or 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.

NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

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**VECTOBAC® WDG
BIOLOGICAL LARVICIDE
WATER DISPERSIBLE GRANULE**

[Alternate Brand Name: GNATROL DG Biological Larvicide Water Dispersible Granule]

[Sub-Label C]

For Organic Production

Active Ingredient:

<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , Strain AM 65-52 fermentation solids, spores, and insecticidal toxins*	37.4%
Other Ingredients.....	<u>62.6%</u>
Total.....	100.0%

*Potency: 3000 International Toxic Units (ITU) per mg of product. Equivalent to 1.36 billion ITU/lb. of product

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

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See inside panel for additional precautionary statements and first aid statements.

Produced for:

Valent BioSciences LLC

1910 Innovation Way, Suite 100 870 Technology Way

Libertyville, IL 60048

EPA Registration No.: 73049-56

EPA Establishment No.: 33762-IA-01

Net Weight:

Lot No.:

FIRST AID	
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further 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.

HOTLINE 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 transportation emergency information. For all other information, call 1-800-89-VALENT (1-800-898-2536).

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing dust or spray mist. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- A NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. (Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.)

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

USER SAFETY RECOMMENDATIONS
Users should: <ul style="list-style-type: none"> • Remove clothing/PPE immediately if pesticide get inside. Then wash thoroughly and put on clean clothing. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

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

Do not apply this product through any type of irrigation system.

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 interval. The requirements in this box 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.

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

APPLICATION DIRECTIONS

For control of mushroom fly larvae.

Mushroom Flies (*Sciaridae*)

Conventional *Agaricus bisporus* mushrooms

For the control of the larval stage of Sciarid mushroom flies when mixed into or applied to mushroom casing: Mix VectoBac[®] WDG Biological Larvicide Water Dispersible Granule (hereafter referred to as VectoBac WDG) into the mushroom casing material with a mechanical mixer until granules are evenly dispersed throughout all of the material or apply in a suspended solution mixed with water. Typically, casing soils should be formulated (e.g., with peat) prior to use and brought to the appropriate moisture content prior to the addition of VectoBac WDG. Use sufficient water and/or proper application and mixing equipment to obtain good distribution of VectoBac WDG throughout the growth medium.

If the casing material is steamed, pasteurized or fumigated, the addition of VectoBac WDG needs to immediately follow this practice.

Watering-in VectoBac WDG: Follow normal watering practices after casing. VectoBac WDG will solubilize and disperse throughout the casing and compost during the routine water management process.

For the control of the larval stage of Sciarid mushroom flies when mixed into mushroom compost at spawning/supplementation: Mix VectoBac WDG into compost during spawning

and/or supplementation. VectoBac WDG can be mixed with supplement or spawn using a mechanical mixer just before application to beds or trays. VectoBac WDG can be mixed directly with supplement or mixed with up to 6 lbs. of gypsum/1000 sq. ft. of the bed for mixing with spawn or supplement.

APPLICATION RATE RANGE

Casing Application - Use 1.5 – 3.0 lbs. of VectoBac WDG/1000 sq. ft. of bed.

Compost Application - Use 2.5 – 3.0 lbs. of VectoBac WDG/1000 sq. ft. of bed.

Use higher application rates when pest pressure is heavy.

VectoBac WDG has not been tested for mycotoxicity on all strains of common commercial mushrooms (*Agaricus*). Since strains may vary in their sensitivity, this product should be tested on a section of bed prior to whole house treatment.

STORAGE AND DISPOSAL

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

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

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

Container Handling:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, offer for recycling if available or 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.

NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.