

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 30, 2015

Ms. Kathy Bolan Authorized Agent to Phyllom BioProducts Corporation Bolan Consulting 575 Viewridge Drive Angwin, CA 94508

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – To Add

Package Sizes; Modify Hot Line Number and Personal Protective Equipment

Respirator Text; Add a Pest (Annual Bluegrass Weevil); Adjust Certain Measurements from Total Ounces to Equivalent Pounds and Ounces; Add a Spreader Settings Table

and Associated Text; and Make Other Minor Revisions

Product Name: grubGONE!® G EPA Registration Number: 88347-2 Application Date: September 14, 2015

OPP Decision Numbers: 512333 and 512528

Dear Ms. Bolan:

In an application dated September 14, 2015 (OPP Decision No. 512333), you notified the U.S. Environmental Protection Agency (EPA) that you were, among other things, adding a spreader settings table and associated text to the grubGONE![®] G label. Subsequently, the EPA determined that the action requested did not fall under the scope of Pesticide Registration Notice 98-10 and therefore converted the notification to a minor label amendment (OPP Decision No. 512528).

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling

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or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

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 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.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact me by phone at (703) 347-8920 or via email at kausch.jeannine@epa.gov.

Sincerely,

Jeannine Kausch, Regulatory Action Leader Microbial Pesticides Branch Biopesticides and Pollution Prevention Division (7511P)

Office of Pesticide Programs

grubGONE!® G

Biological Insecticide Granule Controls Annual White Grubs in Turf and Ornamentals

ACTIVE INGREDIENT:

Bacillus thuringiensis subsp. galleriae, Strain SDS-502 fermentation	
solids, spores and insecticidal toxins*	9.0% w/w
OTHER INGREDIENTS:	<u>91.0%</u> w/w
TOTAL:	100.0% w/w
*Contains a minimum of 1 x 10 ⁹ CFU per gram.	

KEEP OUT OF REACH OF CHILDREN

CAUTION

See side/back panel for additional precautionary statements.

EPA Reg. No.: 88347-2 Net Weight: 5 lb, 10 lb, 20 lb, or 40 lb

EPA Est. No.: 9198-OH-1 or 9198-OH-2 Batch Number: _____

Manufactured for: Phyllom BioProducts Corp. 484 Lake Park Ave # 23 Oakland, CA 94610 Tel: (650) 322-5000

E-mail: products@phyllom.com

ACCEPTED

12/30/2015

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 2004 77.0

88347-2

	FIRST AID
If on skin or clothing:	 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 inhaled:	 Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
If swallowed:	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. For non-emergency information concerning this product, call the National Pesticide Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8:00 am to 12:00 pm Pacific Time (NPIC Web site: www.npic.orst.edu). For emergencies, call your poison control center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through the skin, inhaled, or swallowed. Avoid contact with skin, eyes, or clothing and breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and handlers must wear:

- · Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- A NIOSH-approved particulate respirator with any R or P 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 laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets 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 washwaters or rinsate.

No manual application can be made within 300 feet of any threatened or endangered Lepidoptera or Coleoptera.

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.

Read the entire label before use.

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 of this product that are NOT within the scope of the Worker Protection Standard (WPS) 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 children and pets out of treated areas until dusts have settled.

grubGONE![®] **G** is for control of annual white grubs in landscape and recreational turf grasses and ornamental plants and to prevent their damage. Use sites include golf courses, residential lawns, commercial grounds (e.g., office and shopping complexes and airports), parks, schools, playgrounds, athletic fields, day care facilities, pet care facilities, cemeteries, sod farms, interior plantscapes, greenhouses, nurseries, fields, and other turf grass-covered or landscape ornamental-planted areas.

PRODUCT USE INFORMATION

grubGONE!® G is a broad-spectrum biological insecticide. When applied at label rates, it is active against annual white grubs of the Annual bluegrass weevil (*Listronotus maculicollis*), Asiatic garden beetle (*Maladera castanea*), European chafer (*Rhizotroqus majalis*), green June beetle (*Cotinis nitida*), Japanese beetle (*Popillia japonica*), May or June beetle (*Phyllophaga sp.*), northern masked chafer (*Cyclocephala borealis*), oriental beetle (*Anomala orientalis*) and southern masked chafer (*Cyclocephala lurida*). Rainfall or irrigation causes the active ingredient of grubGONE!® G, *Bacillus thuringiensis* (*Bt*) subspecies *galleriae* strain SDS-502, to be released from the granule. Once released, *Bt* subspecies *galleriae* strain SDS-502 is carried into the soil and root zone of turf and ornamentals. In the soil, grubGONE!® G will control annual white grubs upon ingestion of *Bt* subspecies *galleriae* strain SDS-502. Insect mortality varies with larval size (instar), grub species, and dose of active ingredient consumed.

RESISTANCE MANAGEMENT

grubGONE![®] **G** is a biological insecticide (Group 11 Insecticide) that is not known to be cross-resistant to any other class of insecticide. However, insect pests are known to develop resistance to pesticide products used repeatedly. Because resistance development cannot be predicted, the use of **grubGONE!**[®] **G** should conform to sound resistance management strategies established for the crop and use area. Strategies should include rotation of treatments with different modes of action, limitation of the number of successive generations of the target insect pest being treated with the same compound, and adherence to label directions for use.

Consult your local pest control advisor or extension office for additional methods for preventing resistance development. Phyllom BioProducts Corp. encourages responsible product stewardship to ensure effective long-term control of the insect pests on this label.

APPLICATION TO TURF GRASS

Sites of Application: grubGONE! G can be used for applications to landscape and recreational turf grasses found in, on and/or adjacent to golf courses (e.g., greens, tees, collars, roughs, and fairways), residential lawns, commercial grounds (e.g., office and shopping complexes and airports), parks, schools, playgrounds, athletic fields, day care facilities, pet care facilities, cemeteries, sod farms, and other turf grass-covered areas.

grubGONE!® G is not phytotoxic and can be used on all turf grass species.

Restriction: Do not apply more than 6 lb 14 oz of **grubGONE! G** per 1,000 sq ft of turf grass per year (equivalent to 300 pounds of **grubGONE! G** per acre of turf grass per year).

Application Methods: Apply grubGONE!® G as a broadcast application to turf grass for control of targeted insect pests and to prevent their damage to turf grasses. With calibrated granular equipment, uniformly broadcast grubGONE!® G over the area being treated. Maintain adequate soil moisture before and after application for optimum control of insect pests and healthy turf grass growth. Excessively wet or dry conditions may impact the performance of grubGONE!® G against annual white grubs. grubGONE! G must move to the site of insect pest infestation, such as in the root zone of the host plant. Sprinkler irrigation of about 0.5 in or moderate rainfall shortly after application improves performance for all applications by moving grubGONE!® G into the root zone where annual white grubs feed. Do not mow the turf until the treated area has been irrigated or moderate rainfall has occurred so that granules are not removed from the treated area.

Spreader Settings for grubGONE! G: Spreader settings are influenced by factors such as speed, equipment wear, and condition of spreader, but mainly by the type or brand of spreader. Use the adjustment chart provided with the kind of spreader used as a guide in establishing accurate calibration of your spreader and to properly apply **grubGONE!** G at label rates. Spreaders may also be calibrated by collecting deposited granules on a plastic sheet and comparing the amount of **grubGONE!** G applied on a given area with spreader adjustment settings. See the following table for additional spreader settings information:

grubGONE! [®] G Spreader Settings for the Minimum and Maximum Label Rates per 1000 sq ft					
Spreader Type	Speed	2 lb 5 oz	3 lb 7 oz	Swath	Pattern / Cone
Agrifab Rotary	3 mph	4	4 1/2	n/a	n/a
Anderson's Rotary Model 2000 SR	3 mph	K	L	11	6
Anderson's Model 2000 Rotary Spreader	3 mph	K	L	11	6
Anderson's SSD Drop Spreader	3 mph	4	4 3/4	n/a	n/a
Earthway Ev-N-Spred Rotary Model 2170	3 mph	12	14	8	n/a
Gandy Drop	3 mph	19	21	n/a	n/a
LESCO Rotary 020093	3 mph	Е	F	7	0.25 (1/4 closed)
LESCO Rotary 705698	3 mph	12	14	7	0.25 (1/4 closed)
Prizelawn BF1 Pull Behind Rotary Model	3 mph	Н	I	10	n/a
Prizelawn Rotary Model CBR-III	3 mph	Н	I	8	n/a
Scotts Precision Green Drop	3 mph	4	4 3/4	n/a	n/a
Scotts R-8A	3 mph	J	K	11	6
Spyker Rotary Model 46-22	3 mph	3.6	3.9	n/a	n/a
Vicon (03) Series	4.5 mph	19	23	30	n/a
Lely Models WTR, WFR, HR, 1250 (PTO at 450 rpm)	4.5 mph	4 1/2	5 1/4	34	III-C

Note: The specified spreader settings should be used as starting points when calibrating a spreader to achieve the desired application rate of **grubGONE!**® **G**. After calibration, regularly observe the amount of **grubGONE!**® **G** that is applied to a known area and adjust as necessary to maintain the appropriate application rate. Calibrate spreaders regularly to ensure that equipment wear or other factors have not altered the flow rate of **grubGONE!**® **G**. Calibration instructions are included in the Owner's Manual that was provided by the equipment manufacturer at the time of purchase. Additional information may be available from the local Cooperative Extension Service.

Application Timing: grubGONE! G is effective when applied at label rates (see table directly below) to control annual white grubs and prevent their damage to turf. To control annual white grubs, apply **grubGONE! G** when target insects are present. For optimum annual white grub control, apply **grubGONE! G** from peak adult flight through peak egg hatch of the primary insect species being targeted. For specific information about developmental stages of the target insect pest, associated damage, and action thresholds to properly time applications, consult with your State Cooperative Extension Service.

Insect Pests	Application Timing of grubGONE! [®] G to Turf Grass	Application Rate of grubGONE! [®] G to Turf Grass
Larvae (annual white grubs) of: Annual bluegrass weevil (<i>Listronotus maculicollis</i>) Asiatic garden beetle (<i>Maladera castanea</i>)	Apply when insects of the insect species being targeted are present. For optimum control, apply from peak adult flight to peak egg hatch of the primary insect species being targeted.	Apply 2 lb 5 oz to 3 lb 7 oz of grubGONE!® G per 1,000 sq ft of turf grass (equivalent to 100 to 150 pounds of grubGONE!® G per acre of turf grass).
European chafer (Rhizotroqus majalis) Green June beetle (Cotinis nitida)	Additional applications may be made no earlier than 7 days after the preceding application as long as the annual maximum restriction	
Japanese beetle (<i>Popillia japonica</i>) May or June beetle (<i>Phyllophaga sp.</i>)	on grubGONE! [®] G used (i.e., 6 lb 14 oz per 1,000 sq ft (equivalent to 300 pounds per acre)) is not exceeded.	
Northern masked chafer (Cyclocephala borealis)		
Oriental beetle (Anomala orientalis) Southern masked chafer (Cyclocephala lurida)		

Note: For turf grass with heavy thatch (more than 0.75 in), use the higher rates within the specified rate range.

APPLICATION TO LANDSCAPE ORNAMENTAL PLANTS

Sites of Application: grubGONE! G can be used for applications to landscape ornamental plants found in, on and/or adjacent to residential plantings, commercial grounds (e.g., office and shopping complexes and airports), parks, schools, playgrounds, athletic fields, day care facilities, pet care facilities, cemeteries, and other landscape ornamental-planted areas.

grubGONE!® G is not phytotoxic and can be used on all ornamental species.

Restriction: Do not apply more than 6 lb 14 oz of **grubGONE!** G per 1,000 sq ft of landscape ornamental plants per year (equivalent to 300 pounds of **grubGONE!** G per acre of landscape ornamental plants per year).

Application Methods: Apply grubGONE!® G as a broadcast application to soil for control of targeted insect pests and to prevent damage to ornamental plants. With calibrated granular equipment, uniformly broadcast grubGONE!® G over the soil in the area being treated. Use the adjustment chart provided with the kind of spreader used as a guide in establishing accurate calibration of your spreader and to properly apply grubGONE!® G at label rates. Maintain adequate soil moisture before and after application for optimum control of insect pests and healthy ornamental plant growth. Excessively wet or dry conditions may impact the performance of grubGONE!® G against annual white grubs. grubGONE!® G must move to the site of insect pest infestation, such as in the root zone of the host plant. Sprinkler irrigation of about 0.5 in or moderate rainfall shortly after application improves performance for all applications by moving grubGONE!® G into the root zone where annual white grubs feed.

Application Timing: grubGONE! G is effective when applied at label rates (see table directly below) to control annual white grubs and prevent their damage to ornamental plants. To control annual white grubs, apply **grubGONE!** G when target insects are present. For optimum annual white grub control, apply **grubGONE!** G from peak adult flight through peak egg hatch of the primary insect species being targeted. For specific information about developmental stages of the target insect pest, associated damage, and action thresholds to properly time applications, consult with your State Cooperative Extension Service.

Insect Pests	Application Timing of grubGONE! [®] G to Landscape Ornamental Plants	Application Rate of grubGONE!® G to Landscape Ornamental Plants
Larvae (annual white grubs) of:	Apply when insects of the insect species being targeted are present.	Apply 2 lb 5 oz to 3 lb 7 oz of grubGONE!® G per 1,000 sq ft of landscape ornamental plants
Asiatic garden beetle (Maladera castanea)	For optimum control, apply from	(equivalent to 100 to 150 pounds of grubGONE!® G per acre of landscape
European chafer (Rhizotroqus majalis)	peak adult flight to peak egg hatch of the primary insect species being targeted.	ornamental plants).
European chafer (Rhizotroqus majalis)	Additional applications may be	
Green June beetle (Cotinis nitida)	made no earlier than 7 days after the preceding application as long as the annual maximum	
Japanese beetle (<i>Popillia japonica</i>)	restriction on grubGONE! [®] G used (i.e., 6 lb 14 oz per 1,000	
May or June beetle (Phyllophaga sp.)	sq ft (equivalent to 300 pounds per acre)) is not exceeded.	
Northern masked chafer (Cyclocephala borealis)		
Oriental beetle (Anomala orientalis)		
Southern masked chafer (<i>Cyclocephala lurida</i>)		

APPLICATION TO ORNAMENTAL PLANTS GROWN IN NURSERIES, FIELDS, GREENHOUSES OR INTERIOR PLANTSCAPES

Sites of Application: grubGONE![®] **G** can be used for applications to nursery, field, greenhouse, or interior plantscape grown ornamental plants. The plants may be field or container grown.

grubGONE!® G is not phytotoxic and can be used on all ornamental species.

Restriction: Do not apply more than 6 lb 14 oz of **grubGONE! G** per 1,000 sq ft of ornamental plants grown in nurseries, fields, greenhouses, or interior plantscapes per year (equivalent to 300 pounds of **grubGONE! G** per acre of ornamental plants grown in nurseries, fields, greenhouses, or interior plantscapes per year).

Application Methods: If the plants are in large numbers of closely grouped pots or in the field, it may be possible to use a granular applicator followed by watering in with about 0.5 in water applied with overhead sprinklers. If there are individual pots, use 0.42 to 0.55 oz of **grubGONE! G** per 10 sq ft of combined surface area of the closely arranged containers. For individual planting pots or plant containers, the area of a pot surface is π (pi) r^2 , where pi is 3.142 and r is the radius or half the diameter. For example, a 12 in diameter pot surface is 113 sq in, which is about 0.8 sq ft At the higher rate of **grubGONE! G** application, the application rate is then 0.04 oz. **grubGONE! G** must then be watered in as described earlier in this paragraph; do not drench, as excessive watering may reduce the effectiveness of **grubGONE! G**.

Application Timing: grubGONE! G is effective when applied at label rates (see table directly below) to control annual white grubs and prevent their damage. To control annual white grubs, apply **grubGONE!** G when target insects are present. For optimum annual white grub control, apply **grubGONE!** G from peak adult flight through peak egg hatch of the primary insect species being targeted. For specific information about developmental stages of the target insect pest, associated damage, and action thresholds to properly time applications, consult with your State Cooperative Extension Service.

Insect Pests	Application Timing of grubGONE!® G for Ornamental Plants Grown in Nurseries, Fields, Greenhouses, or Interior Plantscapes	Application Rate of grubGONE! [®] G for Ornamental Plants Grown in Nurseries, Fields, Greenhouses, or Interior Plantscapes
Larvae (annual white grubs) of: Asiatic garden beetle (Maladera castanea) European chafer (Rhizotroqus majalis) European chafer (Rhizotroqus majalis) Green June beetle (Cotinis nitida) Japanese beetle (Popillia japonica) May or June beetle (Phyllophaga sp.) Northern masked chafer (Cyclocephala borealis) Oriental beetle (Anomala orientalis) Southern masked chafer (Cyclocephala lurida)	Apply when insects of the insect species being targeted are present. For optimum control, apply from peak adult flight to peak egg hatch of the primary insect species being targeted. Additional applications may be made no earlier than 7 days after the preceding application as long as the annual maximum restriction on grubGONE! Gused (i.e., 6 lb 14 oz per 1,000 sq ft (equivalent to 300 pounds per acre)) is not exceeded.	Apply 2 lb 5 oz to 3 lb 7 oz of grubGONE!® G per 1,000 sq ft of ornamental plants (equivalent to 100 to 150 pounds of grubGONE!® G per acre of ornamental plants). For individual plant containers, measure the soil surface area, apply grubGONE!® G at a proportional rate equivalent to that listed above, and water in to disperse the product into the soil substrate.

STORAGE AND DISPOSAL			
	Do not contaminate water, food or feed by storage or disposal.		
PESTICIDE	PESTICIDE Store in a cool, dry place inaccessible to children.		
STORAGE			
PESTICIDE	Wastes resulting from the use of this product must be disposed of on site		
DISPOSAL	or at an approved waste disposal facility.		
CONTAINER	Nonrefillable container. Do not reuse or refill this container. Completely		
HANDLING	empty bag into application equipment. Then, offer for recycling if		
	available, dispose of empty bag in a sanitary landfill or by incineration or,		
	if allowed by state and local authorities, by burning. If burned, stay out of		
	smoke.		

WARRANTY AND LIMITATION OF DAMAGES

Phyllom BioProducts Corp. warrants that the material contained in this package conforms to the description on this label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage, or handling of this material not in accordance with the directions on this label. To the extent consistent with applicable law, Phyllom BioProducts Corp. makes no other express or implied warranty of the fitness or merchantability of this product.