

88347-2

6/6/2013

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Biopesticides and Pollution Prevention Division (7511P)  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

EPA  
Registration  
Number:

88347-2

Date of Issuance:

JUN 06 2013

NOTICE OF PESTICIDE:

- Registration
  - Reregistration
- (under FIFRA, as amended)

Term of  
Issuance: Unconditional

Name of Pesticide Product:  
Phyllom grubGONE! G

Name and Address of Registrant (include ZIP Code):

Phyllom, LLC  
922 San Leandro Avenue, Suite F  
Mountain View, CA 94043

Note: Changes in labeling, differing in substance from that accepted in connection with this registration, must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act). Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This registration does not eliminate the need for continual reassessment of the pesticide. If the EPA determines at any time that additional data are required to maintain in effect an existing registration, it will require submission of such data under section 3(c)(2)(B) of FIFRA.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) and is subject to the following terms:

1. On the final printed labeling, revise the EPA File Symbol to read as follows: "EPA Reg. No. 88347-2."

Signature of Approving Official:

Date:

06 Jun 2013

Keith A. Matthews, Director  
Biopesticides and Pollution Prevention Division (7511P)

EPA Form 8570-6

CONCURRENCES

SYMBOL	7511P	7511P	7511P	7511P			
USERNAME	KMSCH	Bones	Chen	Wagner			
DATE	06/06/2013	6/6/13	6/6/13	06 June 13			

EPA Form 1320-1A (1/90)

Printed on Recycled Paper

OFFICIAL FILE COPY

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MASTER LABEL

# Phyllom grub**GONE!** 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:**..... 91.0% w/w

**TOTAL:**.....100.0% w/w

\*Contains a minimum of  $1 \times 10^9$  CFU per gram.

**KEEP OUT OF REACH OF CHILDREN  
WARNING - AVISO**

*Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)*

See side/back panel for additional precautionary statements.

Net Weight: \_\_\_\_\_ Lbs \_\_\_\_\_ Kg  
Batch Number: \_\_\_\_\_

EPA Reg. No.: 88347-~~2~~ 2  
EPA Est. No.: 9198-OH-1

Manufactured for:  
Phyllom, LLC  
922 San Leandro Avenue, Ste. F  
Mountain View, CA 94043  
Tel: (650) 322-5000  
E-mail: johnlibs@phyllom.com

**ACCEPTED**

JUN 06 2013

Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended, for  
the pesticide registered under  
EPA Reg. No. 88347-2

<b>FIRST AID</b>	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>HOT LINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. For emergency information concerning this product, call the National Pesticide Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm, Pacific Time (NPIC Web site: <a href="http://www.npic.orst.edu">www.npic.orst.edu</a>). During other times, call your poison control center at 1-800-222-1222.</p>	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## WARNING - AVISO

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear. Harmful if absorbed through the skin, inhaled, or swallowed. Avoid contact with skin or 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 EQUIPEMENT (PPE)

Applicators and handlers must wear:

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

Mixers/loaders and applicators must wear a dust/mist filtering 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.

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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 12 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
- Protective eyewear

### 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.

Phyllom 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 (i.e., office and shopping complexes and airports), parks, schools, playgrounds, athletic fields, day care facilities, pet care facilities, cemeteries, sod farms, interior landscapes, greenhouses, nurseries, fields, and other turf grass-covered or landscape ornamental-planted areas.

### PRODUCT USE INFORMATION

Phyllom grubGONE! G is a broad-spectrum biological insecticide. When applied at label rates, it is active against annual white grubs of the 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 Phyllom 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, Phyllom 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

Phyllom 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 Phyllom 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, LLC encourages responsible product stewardship to ensure effective long-term control of the insect pests on this label.

### APPLICATION TO TURF GRASS

**Sites of Application:** Phyllom 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.

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

**Restriction:** Do not apply more than 110 oz of Phyllom grubGONE! G per 1,000 sq ft of turf grass per year (equivalent to 300 pounds of Phyllom grubGONE! G per acre of turf grass per year).

**Application Methods:** Apply Phyllom 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 Phyllom 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 Phyllom grubGONE! G against annual white grubs. Phyllom 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 Phyllom 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 Phyllom grubGONE! G Insecticide:** 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 Phyllom grubGONE! G at label rates. Spreaders may also be calibrated by collecting deposited granules on a plastic sheet and comparing the amount of Phyllom grubGONE! G applied on a given area with spreader adjustment settings.

**Application Timing:** Phyllom 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 Phyllom grubGONE! G up to 14 days before the historical peak of adult flight for the targeted insect species. For control of annual white grubs, apply Phyllom grubGONE! G from egg hatch to 2<sup>nd</sup> instar (grubs less than half their full size). For optimum annual white grub control, apply Phyllom 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 Phyllom grubGONE! G to Turf Grass	Application Rate of Phyllom grubGONE! G to Turf Grass
<p><b>Larvae (annual white grubs) of:</b></p> <p>Asiatic garden beetle (<i>Maladera castanea</i>)</p> <p>European chafer (<i>Rhizotroqus majalis</i>)</p> <p>Green June beetle (<i>Cotinis nitida</i>)</p> <p>Japanese beetle (<i>Popillia japonica</i>)</p> <p>May or June beetle (<i>Phyllophaga sp.</i>)</p> <p>Northern masked chafer (<i>Cyclocephala borealis</i>)</p> <p>Oriental beetle (<i>Anomala orientalis</i>)</p> <p>Southern masked chafer (<i>Cyclocephala lurida</i>)</p>	<p>Apply up to 14 days before the historical peak of adult flight to 2<sup>nd</sup> instar (grubs less than half their full size) of the insect species being targeted.</p> <p>For optimum control, apply from peak adult flight to peak egg hatch of the primary insect species being targeted.</p> <p>Additional applications may be made no earlier than 7 days after the preceding application as long as the annual maximum restriction on Phyllom grubGONE! G used (i.e., 110 oz per 1,000 sq ft (equivalent to 300 pounds per acre)) is not exceeded.</p>	<p>Apply 42 to 55 oz of Phyllom grubGONE! G per 1,000 sq ft of turf grass (equivalent to 115 to 150 pounds of Phyllom grubGONE! G per acre of turf grass).</p>

**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:** Phyllom 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.

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

**Restriction:** Do not apply more than 110 oz of Phyllom grubGONE! G per 1,000 sq ft of landscape ornamental plants per year (equivalent to 300 pounds of Phyllom grubGONE! G per acre of landscape ornamental plants per year).

**Application Methods:** Apply Phyllom 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 Phyllom 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 Phyllom 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 Phyllom grubGONE! G against annual white grubs. Phyllom

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 Phyllom grubGONE! G into the root zone where annual white grubs feed.

**Application Timing:** Phyllom 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 Phyllom grubGONE! G up to 14 days before the historical peak of adult flight for the targeted insect species. For control of annual white grubs, apply Phyllom grubGONE! G from egg hatch to 2<sup>nd</sup> instar (grubs less than half their full size). For optimum annual white grub control, apply Phyllom 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 Phyllom grubGONE! G to Landscape Ornamental Plants	Application Rate of Phyllom grubGONE! G to Landscape Ornamental Plants
<p><b>Larvae (annual white grubs) of:</b></p> <p>Asiatic garden beetle (<i>Maladera castanea</i>)</p> <p>European chafer (<i>Rhizotroqus majalis</i>)</p> <p>Green June beetle (<i>Cotinis nitida</i>)</p> <p>Japanese beetle (<i>Popillia japonica</i>)</p> <p>May or June beetle (<i>Phyllophaga sp.</i>)</p> <p>Northern masked chafer (<i>Cyclocephala borealis</i>)</p> <p>Oriental beetle (<i>Anomala orientalis</i>)</p> <p>Southern masked chafer (<i>Cyclocephala lurida</i>)</p>	<p>Apply up to 14 days before the historical peak of adult flight to 2<sup>nd</sup> instar (grubs less than half their full size) of the insect species being targeted.</p> <p>For optimum control, apply from peak adult flight to peak egg hatch of the primary insect species being targeted.</p> <p>Additional applications may be made no earlier than 7 days after the preceding application as long as the annual maximum restriction on Phyllom grubGONE! G used (i.e., 110 oz per 1,000 sq ft (equivalent to 300 pounds per acre)) is not exceeded.</p>	<p>Apply 42 to 55 oz of Phyllom grubGONE! G per 1,000 sq ft of landscape ornamental plants (equivalent to 115 to 150 pounds of Phyllom grubGONE! G per acre of landscape ornamental plants).</p>

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

**Sites of Application:** Phyllom 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.

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



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**Restriction:** Do not apply more than 110 oz of Phyllom grubGONE! G per 1,000 sq ft of ornamental plants grown in nurseries, fields, greenhouses, or interior landscapes per year (equivalent to 300 pounds of Phyllom grubGONE! G per acre of ornamental plants grown in nurseries, fields, greenhouses, or interior landscapes 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 Phyllom 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  $\pi$  (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 Phyllom grubGONE! G application, the application rate is then 0.04 oz. Phyllom grubGONE! G must then be watered in as described earlier in this paragraph; do not drench, as excessive watering may reduce the effectiveness of Phyllom grubGONE! G.

**Application Timing:** Phyllom 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 Phyllom grubGONE! G up to 14 days before the historical peak of adult flight for the targeted insect species. For control of annual white grubs, apply Phyllom grubGONE! G from egg hatch to 2<sup>nd</sup> instar (grubs less than half their full size). For optimum annual white grub control, apply Phyllom 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 Phyllom grubGONE! G for Ornamental Plants Grown in Nurseries, Fields, Greenhouses, or Interior Plantscapes	Application Rate of Phyllom grubGONE! G for Ornamental Plants Grown in Nurseries, Fields, Greenhouses, or Interior Plantscapes
<p><b>Larvae (annual white grubs) of:</b></p> <p>Asiatic garden beetle (<i>Maladera castanea</i>)</p> <p>European chafer (<i>Rhizotroqus majalis</i>)</p> <p>Green June beetle (<i>Cotinis nitida</i>)</p> <p>Japanese beetle (<i>Popillia japonica</i>)</p> <p>May or June beetle (<i>Phyllophaga sp.</i>)</p> <p>Northern masked chafer (<i>Cyclocephala borealis</i>)</p> <p>Oriental beetle (<i>Anomala orientalis</i>)</p> <p>Southern masked chafer (<i>Cyclocephala lurida</i>)</p>	<p>Apply up to 14 days before the historical peak of adult flight to 2<sup>nd</sup> instar (grubs less than half their full size) of the insect species being targeted.</p> <p>For optimum control, apply from peak adult flight to peak egg hatch of the primary insect species being targeted.</p> <p>Additional applications may be made no earlier than 7 days after the preceding application as long as the annual maximum restriction on Phyllom grubGONE! G used (i.e., 110 oz per 1,000 sq ft (equivalent to 300 pounds per acre)) is not exceeded.</p>	<p>Apply 42 to 55 oz of Phyllom grubGONE! G per 1,000 sq ft of ornamental plants (equivalent to 115 to 150 pounds of Phyllom grubGONE! G per acre of ornamental plants).</p> <p>For individual plant containers, measure the soil surface area, apply Phyllom grubGONE! G at a proportional rate equivalent to that listed above, and water in to disperse the product into the soil substrate.</p>

<b>STORAGE AND DISPOSAL</b>	
<b>Do not contaminate water, food or feed by storage or disposal.</b>	
<b>PESTICIDE STORAGE</b>	Store in a cool, dry place inaccessible to children.
<b>PESTICIDE DISPOSAL</b>	Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
<b>CONTAINER HANDLING</b>	Nonrefillable container. Do not reuse or refill this container. Completely 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.

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**WARRANTY AND LIMITATION OF DAMAGES**

Phyllom, LLC 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. 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, LLC makes no other express or implied warranty of the fitness or merchantability of this product.