



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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

APR 30 2008

Ms. Dawn Walters  
The Andersons Lawn Fertilizer Division, Inc.  
d/b/a Free Flow Fertilizer  
P.O. Box 119  
Maumee, OH 43537

Subject: Label Notifications for Pesticide Registration Notice 2007-4

Dear Ms. Walters,

The Agency is in receipt of your Applications for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 dated March 3, 2008 and of the updated labels received April 17, 2008 for the following products:

The Andersons Fertilizer w/3.5% Tupersan®	EPA Registration Number 9198-50
The Andersons 0.058% Bifenthrin + 0.115% Imidacloprid Insecticide With Fertilizer	EPA Registration Number 9198-238
The Andersons 0.077% Bifenthrin + 0.155% Imidacloprid Granular Insecticide	EPA Registration Number 9198-239
The Andersons GC 0.077% Bifenthrin 0.155% Imidacloprid Granular Insecticide	EPA Registration Number 9198-240

The Registration Division (RD) has conducted its review of these requests for their applicability under PRN 2007-4 and finds that the label changes requested fall within the scope of PRN 2007-4. The labels submitted with the application have been stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please call me directly at 703-305-6249 or Steve Schaible of my staff at 703-308-9362.

Sincerely,



Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0080, Approval expires 2-28-85



United States  
Environmental Protection Agency  
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

### Application for Pesticide - Section I

1. Company/Product Number 9198-240	2. EPA Product Manager Eagle	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) The Andersons GC 0.077% Bifenthrin + 0.155% Imidacloprid Granular Insecticide		PM# 1
5. Name and Address of Applicant (Include ZIP Code) The Andersons Lawn Fertilizer Division, Inc. d/b/a Free Flow Fertilizer PO Box 119 Maumee, OH 43537 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(ii), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

### Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification of Label change per PR Notice 2007-4.

This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR 156.10, 156.140, 156.144, 156.146, 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR 156.10, 156.140, 156.144, 156.146, 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

### Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
				<input checked="" type="checkbox"/> Glass	<input checked="" type="checkbox"/> Paper
				Other (Specify) _____	
3. Location of Net Contents Information <input type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container 20-2,000 lbs.		5. Location of Label Directions <input checked="" type="checkbox"/> On Label	
6. Manner in Which Label is Affixed to Product		<input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other <u>Pocket</u>	

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Dawn L. Walters	Title Regulatory Administrator	Telephone No. (Include Area Code) 419-897-8790
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Dawn Walters</i>	3. Title Regulatory Administrator	
4. Typed Name Dawn L. Walters	5. Date 3/4/08	



Front Panel (for internal use only, will not appear on final label)

**RESTRICTED USE PESTICIDE**  
**Toxic to Fish and Aquatic Organisms**  
For retail sale to and use only by certified applicators, or persons under direct supervision and only for those uses covered by the certified applicator's certification.

## The Andersons GC 0.077% Bifenthrin + 0.155% Imidacloprid Granular Insecticide

For use to control soil, thatch and crown inhabiting and surface feeding insect and arthropod pests on any turfgrass site including residential lawns, golf courses and sod farms and in landscaped plantings in commercial and residential settings, golf courses, parks, recreational areas, and athletic fields.

*Optional front panel claims:*

- Ideal for Control of Mole crickets
- Effective for preventative treatment of white grubs
- Effective on difficult to control southern chinch bugs
- Patent pending synergistic combination of insecticides
- Broad spectrum combination insecticide
- Contains DG Pro® patented dispersible carrier
- Comprehensive-turf insect control
- Controls surface and subsurface insect pests
- Utilizes Multiple Target Principle of insect control

**Active Ingredients**

Bifenthrin $\ddagger$ *	0.077%
Imidacloprid $\ddagger\ddagger$	0.155%

<b>Other Ingredients</b> .....	<b>99.768%</b>
<b>Total</b> .....	<b>100.000%</b>

\*Cis isomers 97% minimum, trans isomers 3% maximum

$\ddagger$ CAS No. 82657-04-6

$\ddagger\ddagger$ CAS No.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

**DO NOT USE THIS PRODUCT ON GOLF COURSES AND SOD FARMS IN NASSAU COUNTY OR SUFFOLK COUNTY, NEW YORK OR IN SOD FARMS IN ARIZONA.**

Net Weight XX lbs. (XX kg)  
Covers Up To XX,XXX Sq. Ft.

EPA Reg. No. 9198-240  
EPA Est. 9198-OH-1M, 9198-OH-2B, 9198-AL-001A  
Underlined letter is first letter used in run code on bag

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Back Panel (for internal use only, will not appear on final label)

**FIRST AID**

**If swallowed:** Call a poison control center or doctor 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.

**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 in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contacts lenses, if present, after the first 5 minutes, then continue rinsing eye. 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 treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-757-8951 for emergency medical treatment information.

**Note to Physician:**

No specific antidote is available. Treat the patient symptomatically.

This product is a pyrethroid. If large amounts have been ingested, milk cream and other digestible fats and oils may increase absorption and so should be avoided.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

**Personal Protective Equipment (PPE):**

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes and socks
- Protective eye wear
- Chemical resistant gloves made of any waterproof material Category A (e.g. barrier laminate, butyl rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride [PVC] or vitron)

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

**User Safety Recommendations**

Users should:

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

This pesticide is extremely toxic to fish and aquatic and estuarine invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or when disposing of equipment washwater or rinsate. Run-off from treated areas may be hazardous to aquatic organisms in neighboring areas.

This product contains a chemical with properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Back Panel (for internal use only, will not appear on final label)

**READ ALL DIRECTIONS PRIOR TO APPLICATION OF THE PRODUCT  
DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. In New York State, the product may NOT be applied to any grass or turf areas within 100 feet of a water body (lake, pond, river, stream, wetland or drainage ditch). In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application. Do not apply more than 260 lbs. of this product (0.2 lbs. bifenthrin, 0.40 lbs. imidacloprid) per acre per year.

Do not apply by air. Do not apply more than 520 lbs. of this product (0.4 lbs. bifenthrin, 0.8 lbs. imidacloprid) per acre per year. Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

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 agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Workers 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 only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 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
- Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton.
- Shoes plus socks
- Protective eye wear

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to use of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The Worker Protection Standard applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. If watering-in of the granules is necessary, do not allow people or pets on treated areas until the grass or soil is dry. Do not touch treated surface until dry.

**General Information**

This product controls surface and subsurface feeding pests on any turfgrass site (lawns, sod, turf areas) such as, but not limited to: golf courses and sod farms, residential and commercial lawns, grounds or lawns around business and office complexes, shopping centers, multi-family and residential apartment complexes, airports, military and other institutions, cemeteries, parks and picnic areas, playgrounds, schools and athletic fields. It also controls insect pests in landscaped areas in golf courses, commercial and residential settings, parks, recreational areas, and athletic fields.

The active ingredients in this product also provide both curative and residual control of listed surface feeding pests.

The regional differences in pest species pressure, timing for optimal control, pest monitoring methods and other particulars for your location will vary, so consult your cooperative extension service for details. To find your local extension agent, visit [www.csrees.usda.gov](http://www.csrees.usda.gov).

**Turfgrass**

**Application Directions**

Apply uniformly over the treatment area with either a broadcast or drop type spreader, avoiding spreaders which will apply product in narrow, concentrated bands. Apply only the specified amount in the following table. Calibrate the spreader before use and check periodically to ensure the equipment is working properly. Avoid overlaps that will increase rates above those recommended. Failure to follow the Directions for Use and all precautions may result in poor pest control.

Although not dependent on immediate irrigation for activation, water must carry this material through the thatch. Heavy thatch will prevent the insecticide from penetrating to the area where insects are feeding. For best pest control and turf culture, minimize thatch buildup to no more than 0.5 in., using mechanical removal methods as needed. Most effective results will be obtained by irrigating the treated areas soon after application, enough to thoroughly wet the underlying soil. This washes the active ingredients down below the turf and thatch, and it encourages the subsurface pests to move upward in the soil profile where they will come in contact with the active ingredients.



Recent research has shown that well-maintained turf is an effective environmental buffer that prevents pollutants from entering our natural water bodies. To help protect these natural resources, please avoid applying product to sidewalks, driveways, roadways, and other impervious surfaces which are adjacent to storm drains. Sweep any misplaced granules back onto the area you are treating immediately after application, since storm drains often empty directly to nearby waterways.

**Timing**

**Surface pests** (leaf, crown and thatch inhabiting): Treat when pests or turf damage symptoms first appear, or when pests are detected by local site monitoring. Best results will occur if the treated area is thoroughly irrigated with water after application.

**Subsurface pests** (soil inhabiting): For best preventative treatment, treat prior to or during the egg laying activity and before the eggs hatch.

**Application Rates**

Do not apply more than 260 lbs. of product per acre (0.2 lb. bifenthrin, 0.4 lb. imidacloprid active ingredient per acre) per application on residential use sites (i.e. around private home, apartment buildings, condominiums, non-agricultural outbuildings, non-commercial greenhouses, pre-schools or day care facilities). This product may be applied up to 520 lbs. per acre (0.4 lb. bifenthrin, 0.8 lb. imidacloprid active ingredient per acre) per application on non-residential use sites (i.e. around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields).

Pest	Amount of product
Armyworms (larvae of Armyworm, Fall armyworm, Lawn armyworm, and Striped grassworm), Cutworms (larvae of Black cutworm, and Bronze cutworm), Sod webworms (larvae of Bluegrass webworm, Larger sod webworm, Western lawn moth, Cranberry girdler, Tropical sod webworm, and Burrowing sod webworm)	65 lb./acre (1.5 lb./1,000 sq. ft.)
Annual bluegrass weevil ( <i>Hyperodes</i> spp.) (adult), adults of Bluegrass billbug, Hunting billbug, Phoenician billbug and Denver billbug, Black turfgrass ataenius (adult), Mealybugs, Leafhoppers, Chinch bugs (nymphs and adults of Hairy chinch bug, Southern chinch bug, and Buffalograss chinch bug), Chiggers, Crickets, Darkling ground beetles, Earwigs, Essex skipper, Fire brats, Grasshoppers, Silverfish, Spittlebugs, Springtails	98 lb./acre (2.25 lb./1,000 sq. ft.)



Back Panel (for internal use only, will not appear on final label)

Ants, Centipedes, Fleas (adult), Flea (larvae), Millipedes, Ticks, Deer ticks, American dog ticks, Crane fly such as European species, Imported fire ant (adults), Mole cricket (adult), Mole crickets (nymphs and adults of Tawny, Southern, Shortwinged, West Indian (Changa), Oriental (formerly African) and Native (northern) Mole crickets) <sup>1</sup> , Ants such as Turfgrass ant ( <i>Lasius neoniger</i> )	130 – 322 lb./acre (3 – 7.4 lb./1,000 sq. ft.)
White grubs (larvae of Japanese beetle, European chafer, Northern masked chafer, Southern masked chafer, Oriental beetle, Asiatic garden beetle, May/June beetle ( <i>Phyllophaga</i> spp.), Bluegrass billbug, Hunting billbug, Phoenician billbug, Denver (Rocky Mountain) billbug, Green June beetle, Black turfgrass ataenius, and Aphodius), Annual bluegrass weevil ( <i>Hyperodes weevil</i> ) and Crane fly larvae such as European species	130 – 161 lb./acre (3 – 3.7 lb./1,000 sq. ft.)
Pillbugs (Sowbugs)	161– 322 lb./acre (3.7–7.4 lb./1,000 sq. ft.)

<sup>1</sup>For heavy infestations, product may be applied up to 322 lbs./acre or 7.4 lb./1,000 sq. ft. Do not exceed maximum allowable rates per application.

**Armyworms, Cutworms, Sod webworms:** Apply when monitoring or damage symptoms for the larval stages of these pests warrant. For best results, the treated area should be irrigated immediately after application with up to 0.1 inches of water to activate the insecticide.

**Annual bluegrass weevil (*Hyperodes*) (adult):** Treatment should be made to control the adult weevils as they migrate from their overwintering sites such as roughs and debris under ornamental plantings, shrubs and trees, especially White Pines, and move into grass areas. This movement generally begins when Forsythias bloom and ends when flowering dogwoods are in bloom. There are often two generations in New York State. Contact your State Cooperative Extension Service for more specific information.

#### Billbugs

**(Adult/preventative):** In temperate regions, apply when adult billbugs are first observed during April and May. These spring applications targeting billbug adults will also provide control of overwintered chinch bugs. When possible, controlling the mobile adult stage helps prevent turf damage later in the year from the larvae. Consult your State Cooperative Extension Service for information on degree days, monitoring, and timing in your region.

**(Larvae/curative):** This damaging stage may be found in cool season or temperate areas from May into October. The Hunting and Denver species overwinter as larvae, and Hunting Billbugs breed continuously in the Deep South. While most Billbugs in cool season areas typically have one generation per year, due to multiple generations in warmer regions, and extended egg-laying periods throughout their ranges, apply when damage from this stage is noticed. Irrigate thoroughly after application, enough to wet the underlying soil, for best results.

**Black turfgrass ataenius (adult):** Apply treatments during May and July to control both generations of adults. The May application should be made at the same time as the full bloom stage of Vanhoutte spiraea (*Spirea vanhouttei*) and Horse chestnut (buckeye tree) (*Aesculus hippocastanum*). The July application should coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

**Chinch bugs:** These pests infest the base of the plant and are usually found in the thatch layer. All three stages - eggs, nymphs and adults, may be present at the same time in late season temperate and southern locations. Treat when monitoring or damage indicates the presence of populations above damage thresholds. Watering the treated area with up to 0.25 inches immediately after application will result in quicker control. Higher application rates may be required to control both nymphs and adults during the summer or in warm season turf areas, and to provide extended residual control.

**Flea larvae:** These larvae develop in the soil and shady areas. Irrigate the treated area with up to 0.5 inches of water immediately after application.

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**Imported fire ants:** The best control will be reached by a combination of broadcast applications and mound drenching. If soil is not moist, then it is important to irrigate before application. Use another product, such as Andersons Golf Products 0.15G ProSect, for mound drench treatments.

#### **Mole crickets**

**Adults:** Achieving acceptable control of adult mole crickets may be difficult because preferred grass areas are subject to continuous invasion by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Use Andersons Golf Course Fertibait with bifenthrin for Mole Crickets for excellent control of the active adult stage of this pest.

**Nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated 1 week before or no later than 2 weeks after peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

**Ticks:** Do not make spot applications. Treat the entire area where ticks may occur. The higher application rate might be needed if heavy leaf litter or dense ground cover exists. Retreatment might also be necessary due to animals reintroducing new populations.

**Deer ticks:** These ticks have a life cycle that ranges over a two year period and involves four life stages. Treatments should be applied in mid- to late-spring to control larvae and nymphs that are present on the soil and leaf litter.

**American dog ticks:** These ticks tend to gather along paths or roadways where humans are likely to be found. Treatments should be made from mid-spring to early fall to control larvae, nymphs and adults.

**Turfgrass ant (*Lasius neoniger*):** Apply early in the year, within a few weeks after the worker ants start foraging, as indicated by the first appearance of mounds in the Spring. This application timing disrupts the mound-building part of this pest's life cycle, which provides extended control for the remainder of the growing season. Later applications, as mound building intensifies, will provide temporary suppression, and an application in September in the cool season turf region will provide control for the following season.

**White grubs:** Ideal timing for preventative applications is made at the time of peak adult flight activity as determined by local site monitoring, or as recommended by local cooperative extension agents. This is also the primary egg laying period, which will yield the best results. See the Comprehensive Turf Insect Control section below for more information on controlling grubs as well as surface pests. For best results, irrigate treated areas soon after application, enough to thoroughly wet the underlying soil. Use higher rates in areas of heavy pressure and where thatch is present in excess of 0.5 in. thickness. Reduce thatch by mechanical means for best turf quality and better control of grub species. Applications may be split to control multiple species, see **Comprehensive Turf Insect Control** discussion below.

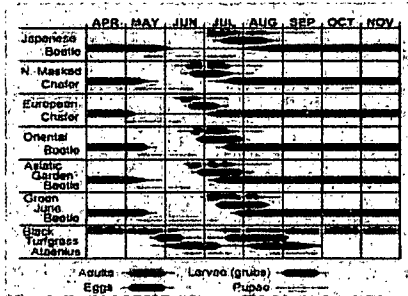
**Crane fly, such as European species:** Adults emerge from the soil to lay eggs from late August to mid-September. In areas with historic problems or where large numbers of (egg laying) adults are observed, a treatment can be used to control this pest at the vulnerable, first through second instar larval stages. This timing, generally from late September through mid November, will prevent damage from the larger third and fourth larval instars the following year. Otherwise, monitor turf areas in winter and early spring when there is a consistent warmer period, treating when larvae are present at levels which may cause damage. Discontinue monitoring and control measures in early May, when these pests pupate and stop feeding.

Back Panel (for internal use only, will not appear on final label)

### Comprehensive Turf Insect Control

The "multiple target principle" of insect control utilizes strategically timed applications to manage multiple insect pests with minimal pesticide applications. For example, this product may be used as a treatment for white grubs in late July for cool season turf areas to control most white grub species. As the white grub life cycle chart for the cool season turf regions below illustrates, application timing in late July will control many of the grub species when they are at their most vulnerable, soon after egg hatch when grubs are small. During this period, adequate grub control can be obtained at 3 pounds per 1,000 sq. ft. in all but the most extreme situations (heavy thatch, heavy pressure). Economical split applications of 1.5 – 2.25 pounds per 1,000 sq. ft. can handle most situations, especially when used in conjunction with early applications (see below) and good cultural practices, especially minimal thatch and post-treatment irrigation or rainfall.

Chart: Cool season white grub life cycle



(chart reprinted with permission of Dr. David Sheltar, Entomologist, Ohio State University, www.bugdoc.edu)

In addition, early applications to control surface pests in mid-April to early or mid-May will also help control white grubs which have moved up as the soil warms into the surface soil, just below the grass and thatch. This application timing will reduce grub pressure from the over wintered grub generation, and can manage populations of turf surface pests as well.

#### Regional Timing for Comprehensive Turf Pest Control; general recommendations

**Northeast and Midwestern states** (bounded by the Dakotas, Nebraska, Kansas, Missouri, Kentucky West Virginia and Maryland), apply mid-April to mid-May (early May for Chafers, see previous chart) as needed for surface pests and over wintered grubs before they pupate, then in late July through late August for newly hatched grubs and other late season pests.

**Southern States** (bounded by New Mexico, Oklahoma, Arkansas, Tennessee and Virginia), apply in April and July, using the higher rates for best results. Additional applications may be required where pest activity persists year-round.

**Western States** (bounded by Montana, Wyoming, Colorado and Arizona), apply in May and July. Applications in October through warm spells in winter and/or Spring may be needed for Crane Fly, such as European species control in the PNW, see detailed instructions above.

#### Ornamentals (including trees, shrubs, evergreens, flowers, foliage plants and ground covers)

##### Application Directions

Before application, remove any weed barrier material that does not allow water permeability.

##### Application Rates

Pest	Amount of Product
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Back Panel (for internal use only, will not appear on final label)

White grub larvae such as: Asiatic garden beetle, ( <i>Maladera castanea</i> ) European chafer, ( <i>Rhizotrogus majalis</i> ) Japanese beetle, ( <i>Popillia japonica</i> ) Northern & Southern masked chafers, ( <i>Cyclocephala borealis</i> , <i>C. immaculata</i> , and/or <i>C. lurida</i> ) May or June beetles, ( <i>Phyllophaga</i> spp.) Oriental beetle, ( <i>Anomala orientalis</i> )	130 – 161 lb./acre or 3– 3.7 lb./1,000 sq. ft.
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<b>Suggested Spreader Settings</b>							
These suggested spreader settings are not intended to replace calibration. Please calibrate your spreader before applying product.							
XX lbs. treats X,XXX sq. ft. at the 65 lbs. product/acre - LIGHT RATE (1.50 lbs./1,000 sq. ft. rate) XX lbs. treats X,XXX sq. ft. at the 98 lbs. product/acre - LOW RATE (2.25 lbs./1,000 sq. ft. rate) XX lbs. treats X,XXX sq. ft. at the 130 lbs. product/acre - MEDIUM RATE (3.00 lbs./1,000 sq. ft. rate) XX lbs. treats X,XXX sq. ft. at the 161 lbs. product/acre - HIGH RATE (3.70 lbs./1,000 sq. ft. rate) XX lbs. treats X,XXX sq. ft. at the 322 lbs. product/acre - HEAVY RATE (7.40 lbs./1,000 sq. ft. rate)							
SPREADER	GROUND SPEED	WIDTH OF COVERAGE	SPREADER SETTINGS				
			LIGHT RATE	LOW RATE	MEDIUM RATE	HIGH RATE	HEAVY RATE
Active ingredient/acre (bifenthrin, imidacloprid)			0.05, 0.10	0.08, 0.15	0.10, 0.20	0.124, 0.25	0.25, 0.50
AA	X mph	XX ft	X	X	X	X	X
BB	X mph	XX ft	X	X	X	X	X
CC	X mph	XX ft	X	X	X	X	X

Note: This list of spreaders and settings will vary dependent on market availability of spreaders. (this note will not appear on final label)

Note: These spreader settings were established using standard equipment available from the spreader manufacturer at swath widths and speeds typically used within the industry. It is recommended that all spreader equipment be calibrated at the time of application to achieve the desired application rate.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Keep out of reach of children and animals. Store in original container only. Store in cool, dry place and avoid excess heat.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of the product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Completely empty bag into application equipment. Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If not available, then 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.

**IMPORTANT: READ BEFORE USE:**

Read the entire Directions for Use and the Warranty Disclaimer and Limitation of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or Buyer accepts the following Warranty Disclaimer and Limitation of Liability:

**WARRANTY DISCLAIMER and LIMITATION of LIABILITY:**

Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions. Manufacturer makes NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Where permissible, it is

Back Panel (for internal use only, will not appear on final label)

Manufacturer's intent to LIMIT ANY LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL ECONOMIC DAMAGES to refund of purchase price or replacement of product, at Buyer's choice. Manufacturer DISCLAIMS ANY LIABILITY FOR COMPENSATORY OR OTHER DAMAGES ARISING OUT OF ANY USE CONTRARY TO LABEL DIRECTIONS. Use contrary to label directions is not permitted.

**LEGAL RIGHTS:**  
THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS; YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE/JURISDICTION TO STATE/JURISDICTION. (APnot041708)

Manufactured by:  
The Andersons Lawn Fertilizer Division, Inc.  
d/b/a Free Flow Fertilizer  
PO Box 119  
Maumee, OH 43537



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