

RESTRICTED USE PESTICIDE

Toxic to Fish and Aquatic Organisms

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

UP-Star®

GC Granular Insecticide

For use to control ants (including imported fire ants), mole crickets, and other insect pests on lawns in landscaped areas and perimeters around residential, institutional, public, commercial, and industrial buildings, parks, recreational areas, golf courses, sod farms, and athletic fields.

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

Active Ingredient:	By Wt.
Bifenthrin*	0.2%
Other Ingredients:	99.8%
TOTAL	100.0%

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

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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.

NOTE TO PHYSICIAN

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.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call the Rocky Mountain Poison Center at 1-866-673-6671.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

EPA Reg. No. 70506-74
EPA Est. No. 44616-MO-01

Net Contents: 50 lbs.

 **UPI United Phosphorus, Inc.**

630 Freedom Business Center, Suite 402
King of Prussia, PA 19406
1-800-438-6071 • www.upi-usa.com

PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals

CAUTION

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing.

The following Personal Protective Equipment requirements apply to sod farm use only:

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

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

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

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 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 apply when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. 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 more than 0.2 lb. active ingredient (a.i.) per acre per application on residential use sites (i.e., around private homes, apartment buildings, condominiums, non-agricultural outbuildings, non-commercial greenhouses, pre-schools or day care facilities). May be applied at up to 0.4 lb. a.i. per acre per application on non-residential use sites (i.e., around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields).

Aerial application is prohibited.

Do not broadcast apply more than 0.4 lb. a.i. (200 lbs. UP-Star GC Granular) 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.

Not for use on nurseries, in commercial greenhouses or on grass grown for seed.

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 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), notification to workers, 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 to treated areas during the restricted entry interval (REI) of 12 hours.

PPI 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 for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and 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.

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use close tightly.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: Cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

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

Container Disposal: Paper and plastic bags: Completely empty bag into application equipment. 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.

GRASS AND PERIMETER APPLICATIONS

(Including Golf Courses and Sod Farms)

Grass Application: Broadcast UP-Star GC Granular Insecticide with application equipment which will ensure uniform coverage of the treatment area.

APPLICATION RATES

The application rates listed below are expected to provide excellent control of the target pests under normal conditions. However, based on the experience of the applicator, UP-Star GC Granular may be applied at up to 0.4 lb. a.i./A to control each of the pests listed in this Table. For residential lawn use, do not apply more than 0.2 lb. a.i. per acre per application.

Insect	Rate per acre	Instructions
Armyworms Cutworms Sod Webworms	50 lbs. product/A; 1.15 lbs. product/ 1,000 sq. ft. (0.1 lb. a.i./A)	Armyworms, Cutworms, Sod Webworms: For optimum control, irrigate the treated area immediately following treatment with up to 0.1 inch of water to activate (release from the granule) the insecticide.
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult) Billbugs (Adult) Black Turfgrass Ataenius (Adult) Leafhoppers Mealybugs	50 - 100 lbs. product/A; 1.15 - 2.3 lbs. product/ 1,000 sq. ft. (0.1 - 0.2 lb. a.i./A)	Annual Bluegrass Weevil (<i>Hyperodes</i>) Adults: Time application to control adult weevils as they leave their over-wintering sites and move into grass areas. This movement usually begins when Forsythia is in full bloom and ends when flowering dogwood is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing. Billbug Adults: Apply when adult billbugs are first seen during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate areas, spring applications made to control billbug adults will also control over-wintered chinch bugs. Black Turfgrass Ataenius Adults: Apply in May and July to control the first and second generation of black turfgrass ataenius adults, respectively. Time the May application so that it coincides with the full bloom stage of Vanhoutte spiraea (<i>Spiraea vanhouttei</i>) and horse chestnut (<i>Aesulus hippocastanum</i>). Time the July application so that it coincides with the blooming of Rose of Sharon (<i>Hibiscus syriacus</i>).

Insect	Rate per acre	Instructions
Ants Centipedes Chinch Bugs Fleas (Larvae) Fleas (Adult) Imported Fire Ants (Adult) Imported Fire Ants (Mounds) Millipedes Mole Cricket (Adult) Mole Cricket (Nymph) Ticks	100 - 200 lbs. product/A; 2.3 - 4.6 lbs. product/ 1,000 sq. ft. (0.2 - 0.4 lb. a.i./A)	<p>Chinch Bugs: Chinch bugs are found at the base of grass plants and also in the thatch layer. Immediately following application, irrigate the treated area with as much as 0.25 inch of water to activate (release from the granule) the insecticide. Since Chinch bugs can be one of the most difficult pests to control in grasses, the higher application rates may be necessary to control populations that contain both nymphs and adults during the summer.</p> <p>Flea Larvae: Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Immediately after application, irrigate the treated area with as much as 0.5 inch of water in order to activate (release from the granule) the insecticide.</p> <p>Imported Fire Ants: For best control combine broadcast applications (for control of foraging workers and newly mated fly-in queens) with mound treatments (for control of existing colonies). If the soil is dry, it should be irrigated before application. Use up to 0.4 lb. a.i./A for broadcast treatments. Treat mounds by sprinkling 1/2 cup of UP-Star GC Granular on each mound and then drenching each mound with 1 to 2 gallons of water. Treat the mounds with enough force to break their apex and allow the insecticide solution to flow inside. Treat a four foot diameter circle around the mound. For optimum results, make application in cool weather (65-80° F) or in early morning or late evening hours. Treatment as described above will kill the queen within 24 hours of application. Note: a spray rig that is calibrated to apply 0.1 lb. a.i./A (20 ounces) of BIFENTHRIN Flowable in 2.5 gallons per 1,000 sq. ft. contains the approximate dilution (1 teaspoon per gallon) that is required for fire ant mound drenches in the spray tank. Application of 0.25 lb./acre of UP-Star GC Granular Insecticide will provide six months residual activity for control of both foraging imported Fire Ants and newly mated fly-in queens.</p> <p>Mole Cricket Adults: It is difficult to achieve acceptable control of adult mole crickets because they continuously invade preferred grass areas during the early spring. Apply as late in the day as possible and water in with up to 0.5 inch of water immediately following treatment. If the soil is dry, it is important to irrigate before application in order to bring the mole crickets closer to the soil surface where they will come in contact with insecticide. Grass areas infested by adult mole crickets should be treated at peak egg hatch to ensure optimum control of later nymph populations (see below).</p> <p>Mole Cricket Nymphs: If grass areas received intense adult mole cricket pressure in the spring, they should be treated immediately before peak egg hatch. This is the time of best control because young nymphs are more susceptible to insecticides and because they are near the soil surface. Control of larger, more damaging, nymphs later in the year is difficult and may require both higher application rates and more frequent applications to maintain acceptable control. Apply as late in the day as possible and water in with as much as 0.5 inch of water immediately following treatment. If the soil is dry, it is important to irrigate before application to bring the mole crickets closer to the soil surface.</p> <p>Ticks (including ticks that may transmit Lyme Disease): Do not make spot applications, but treat the entire area where exposure to ticks may occur. When treating areas of dense ground cover or heavy leaf litter, use higher application rates. Note that ticks may be reintroduced from surrounding areas by means of host animals. Do not allow public use of treated areas during application.</p> <p>Deer ticks (<i>Ixodes sp.</i>) have a complicated life cycle that ranges over a two year period and involves four life stages. Apply in mid to late spring to control larvae and nymphs that live in the soil and leaf litter.</p> <p>American dog ticks may be a problem in suburban settings, particularly where homes are built on land that was previously field or forest. Apply as necessary in areas where these ticks are found (paths, roadways) from mid spring to early fall to control American dog tick larvae, nymphs and adults.</p>

Insect	Rate per acre	Instructions
Pillbugs Sowbugs European Crane Flies	200 lbs. product/A; 4.6 lbs. product/sq. ft. (0.4 lb. a.i./A)	

In New York State, this product may NOT be applied to any grass or turf area 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 UP-Star GC Granular if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Perimeter Application

Apply to the ground in an area 5 to 10 feet wide around and next to the structure.

Application Rate: Pounds Per 1,000 sq. ft.	Band Width	Pounds of UP-Star GC Granular for Perimeter Applications Linear Distances (Feet) Around Structure							
		100	150	200	250	300	400	500	1,000
2.3	5 feet	1.3	1.9	2.5	3.0	3.6	4.8	5.9	11.7
2.3	10 feet	3.0	4.2	5.3	6.5	7.6	9.9	12.2	23.7
3.0	5 feet	1.7	2.5	3.3	3.9	4.7	6.3	7.7	15.2
3.0	10 feet	3.9	5.4	6.9	8.5	9.9	12.9	15.9	30.9
3.5	5 feet	2.0	2.9	3.8	4.5	5.4	7.2	8.9	17.5
3.5	10 feet	4.5	6.3	8.0	9.8	11.4	14.9	18.3	35.5
4.6	5 feet	2.6	3.8	5.0	6.0	7.2	9.6	11.8	23.4
4.6	10 feet	6.0	8.4	10.6	13.0	15.2	19.8	24.4	47.4

Note: Use the following formula to determine the area to be treated: Multiply the linear distance by the band width and then add to their value the area of a circle whose radius is equal to the band width (to account for the area treated at the four corners of a rectangular structure).

INDUSTRIAL NON-AGRICULTURAL APPLICATIONS

(Including Industrial Sites, Parks, Ball Fields and Cemeteries)

Broadcast Spot Applications For the Control of Actively Foraging Ants (Including Imported Fire Ants): Make a uniform broadcast application of 2.3 to 4.6 lbs. UP-Star GC Granular Insecticide per 1,000 sq. ft. (0.2 to 0.4 lb. a.i./Acre). See comments section under Grass Applications for additional rate recommendations.

Application to Pad Mounted Electrical Sites to Reduce or Prevent Ant Mound Building Activity: uniformly distribute 1.0 to 1.5 tablespoons (0.06 to 0.09 lb.) of UP-Star GC Granular Insecticide per 4 sq. ft. of mounting pad. If existing transformers are completely or partially filled with soil which has been excavated by resident ants, first remove any excess fill and level the remaining soil before application is made. If food utensils such as tablespoons are used to measure pesticide, they must not be used for food purposes afterwards.

Note: Ants are more attracted to electrical transformers in the Fall or early Spring. For best results, make application in these cooler months.

UP-STAR GC GRANULAR INSECTICIDE

Recommended Spreader Settings for Broadcast Applications

Equipment	Spreader Setting	100 Pounds Per Acre		200 Pounds Per Acre	
	Ground Speed (MPH)	Once Over	Twice Over	Once Over	Twice Over
Hand Pushed					
LESCO Rotary	3	B + 1/4	A + 1/2	C + 1/2	B + 1/4
Scotts R-8A-1 Rotary	3	G	E	Not. Rec.	G
Gandy Models (42, 36, 30, 24")	3	12	10.5	16	12
Spyker (All Models)	3	2.6	2	3.1	2.6
Equipment Drawn (PTO=540 RPM)					
Grandy Models (42, 36, 30, 24")	4.5	14	11.5	19	14
Gandy 6500 Series	4.5	15	11	20	15
Gandy 10T Series	5.0	16.5	12	24	16.5
Herd GT-77	4.0	--	--	8-H	--
Herd GT-77	8.0	8-H	--	--	8-H
Lely 2.3202.000.1	4.5	2	1	3.5	2
Lely Model L-400	4.5	Not Rec.	Not Rec.	2	Not Rec.
Vicon PS402	4.5	10	7	16	10
Vicon PS1002T	4.5	13	9	21	13

Note: Use these recommended settings as starting points when calibrating a spreader to achieve the needed application rate of UP-Star GC Granular Insecticide. Once the equipment is calibrated, the technician should make further setting adjustments, as necessary, to maintain the proper application rate. Spreaders should be calibrated regularly to confirm that equipment wear or other factors have not changed the flow rate of UP-Star GC Granular Insecticide. Calibration instructions are included in the Owner's Manual that was provided by the equipment manufacturer at the time of purchase.

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

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

**IMPORTANT INFORMATION
READ BEFORE USING PRODUCT**

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. The Directions for Use of this product reflect the opinion of experts based on field use and tests. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT, OR COMPENSATION LIMITED TO DAMAGES NOT EXCEEDING THE FAIR MARKET PURCHASE PRICE, AND SHALL NOT INCLUDE INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of United Phosphorus, Inc.

UP-Star is a registered trademark of United Phosphorus, Inc.

© 2009 United Phosphorus, Inc. All rights reserved.

Rev. 1/06