

UP-Star® Gold

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 and athletic fields.

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

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

EPA Reg. No. 70506-73

EPA Est. No. _____

KEEP OUT OF REACH OF CHILDREN CAUTION

See other panels for additional precautionary information or see back panel pamphlet for additional precautionary information and complete directions for use.

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 1-866-767-5089.

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

PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals CAUTION

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

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). Application at up to 0.4 lb. a.i. per acre per application is allowed on non-residential use sites (i.e., around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields).

Do not broadcast apply more than 0.4 lbs. a.i. (200 lbs. UP-Star Gold Granular) per acre per year.

For ground application only. Do not apply by air.

Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

Do not use on golf courses, sod farms, nurseries, in commercial greenhouses or on grass grown for seed.

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.

Net Contents:

Manufactured for:

 **UPI United Phosphorus, Inc.**

630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

1-800-438-6071 • www.upi-usa.com

LAWN AND PERIMETER APPLICATIONS

Lawn Application: Broadcast UP-Star Gold Granular Insecticide with appropriate application equipment which ensures uniform coverage.

APPLICATION RATES

The application rates listed in the following table are recommended for control of the listed pests under typical conditions. At the discretion of the applicator, UP-Star Gold Granular may be applied at up to 0.4 lb a.i./A to control the pests listed in this Table. However, for residential lawn use, do not apply more than 0.2 lbs. a.i./A per application.

Pest	Active Ingredient lbs. per acre	Rate UP-Star Gold Granular	Instructions
Armyworms Cutworms Sod Webworm	0.1	50 lbs./A Or 1.15 lbs./ 1000 sq. ft.	For best control, irrigate the treated area with as much as 0.1 inches of water immediately after application to activate the insecticide.
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult) Billbugs (Adult) Black Turfgrass Ataenius (Adult) Leafhoppers Mealybugs	0.1-0.2	50-100 lbs./A Or 1.15-2.3 lbs./ 1000 sq. ft.	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 starts when Forsythia is in full bloom and finishes when flowering dogwood is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing. Billbug Adults: Make first application when adult billbugs are first seen during April and May. In temperate regions, spring applications for 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 to coincide with the full bloom stage of Vanhoutte spiraea (<i>Spiraea vanhouttei</i>) and horse chestnut (<i>Aesulus hippocastanum</i>). Time the July application to match the blooming of Rose of Sharon (<i>Hibiscus syriacus</i>).
Ants Centipedes Chinch Bugs Fleas (Larvae) Fleas (Adult) Imported Fire Ants (Adult) Imported Fire Ants (Mounds) Millipedes Mole Cricket (Adult) Mole Cricket (Nymph) Ticks	0.2-0.4	100-200/A Or 2.3-4.6 lbs./ 1000 sq. ft.	Chinch Bugs: Chinch bugs infest the base and thatch layers of grass. Irrigate the treated area with as much as 0.25 inches of water immediately after application to activate the insecticide. Chinch bugs are difficult to control in grasses; higher application rates may be necessary to control populations that contain both nymphs and adults during the summer. Flea Larvae: Flea larvae develop in the soil of shady areas that are available to pets or other animals. Irrigate the treated area with as much 0.5 inches of water immediately following application to activate the insecticide. Imported Fire Ants: For best control, combine broadcast applications with mound treatments. This technique will control both foraging workers and newly mated fly-in queens. Apply to moist soil, irrigating before application if necessary. For broadcast treatments, apply up to 0.4 a.i./A. For mounds, apply 1/2 cup of UP-Star Gold Granular per mound and then drench the mound with 1 to 2 gallons of water. Treat mounds to break their apex and allow the insecticide solution to flow into the ant tunnels. Also treat a four foot diameter circle around the mound. Best results will be obtained if spraying is done in cool weather (65-80° F) or in early morning or late evening hours. This treatment will kill the queen within 24 hours. 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 Gold Granular will give six months residual activity for control of foraging imported Fire Ants and newly mated fly-in queens.

(continued)

Pest	Active Ingredient lbs. per acre	Rate UP-Star Gold Granular	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	0.2-0.4	100-200/A Or 2.3-4.6 lbs./ 1000 sq. ft.	Mole Cricket Adults: Control of adult mole crickets is difficult because grass areas are subject to continuous invasion during the early spring. Apply as late in the day as possible and water in with as much as 0.5 inches of water immediately following treatment. Apply to moist soil, irrigating before application if necessary to bring the mole crickets closer to the soil surface where they will come in contact with insecticide. Grass areas infested with adult mole crickets should be treated at peak egg hatch for optimum control of subsequent nymph populations (see below). Mole Cricket Nymphs: Grass areas that were heavily infested in the spring should be treated immediately prior to peak egg hatch, 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. Applications should be made as late in the days as possible and should be watered in with up to 0.5 inches of water immediately after treatment. Apply to moist soil, irrigating before application if necessary to bring the mole crickets closer to the soil surface where they will come in contact with insecticide. Ticks (including ticks that transmit Lyme Disease and Rocky Mountain Spotted Fever): Do not make spot applications, but treat the entire area where exposure to ticks may occur. Use higher application rates when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Do not allow public use of treated areas during application. Deer ticks (<i>Ixodes sp.</i>) have a complex 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. American dog ticks are commonly found along paths or roadways where humans are likely to pass. Apply as necessary from mid spring to early fall to control larvae, nymphs and adults.
Pillbugs Sowbugs European Crane Flies	0.4	200/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 Gold Granular if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Perimeter Application

Apply to ground area 5 to 10 feet wide around and adjacent to the structure.

Boundary Applications: Apply to soil areas, ornamental gardens, pavement crevices, fencelines, planter areas, vegetation areas and mulch areas.

The amounts in the table are based on the total area to be treated. To determine the area, follow this formula: linear distance x band width + area of a circle whose radius = the band width (this accounts for the areas treated at the four corners of a rectangular shape).

Application Rate: Pounds Per 1,000 sq. ft.	Band Width	Pounds of UP-Star Gold Granular for Perimeter Applications Linear Distances (Feet) Around Structure							
		100	150	200	250	300	400	500	1000
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

For treatment of fire ant mounds: Sprinkle 1/2 cup UP-Star Gold Granular Insecticide on each mound and then drench each mound with 1 to 2 gallons of water, using enough force to break its apex and allow the insecticide to flow into the tunnels. Best results will be obtained by applying in cool weather (65 to 80° F) or in early morning or late evening hours. Treat new mounds as they appear. If food utensils such as teaspoons and measuring cups are used to measure insecticide, they should not be used for food purposes afterwards.

INDUSTRIAL NON-AGRICULTURAL APPLICATIONS

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

Broadcast Spot Applications to control actively foraging ants (including Imported Fire Ants): Make a uniform broadcast of 2.3 to 4.8 lbs. UP-Star Gold Granular Insecticide per 1000 sq. ft. (0.2 to 0.4 lbs. a.i./Acre). See comments section under Lawn Applications for additional rate recommendations.

Application to Pad Mounted Electrical Sites to lessen or eliminate ant mound building: distribute 1.0 to 1.5 tablespoons (0.06 to 0.09 lbs.) of UP-Star Gold Granular Insecticide evenly 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 insecticide, they must not be used for food purposes afterwards.

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

UP-STAR GOLD 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 Gold Granular Insecticide. Once the equipment is calibrated, the technician should make further setting adjustments, as necessary, to maintain the proper application rate. Calibrate spreaders regularly to confirm that equipment wear or other factors have not changed the flow rate of UP-Star Gold Granular Insecticide. Calibration instructions are included in the Owner's Manual that was provided by the equipment manufacturer at the time of purchase.

Recommended Spreader Settings (Optional Text)

Note: Following will be a list of application spreaders and appropriate settings. This list will vary depending on the alternate carrier used. (This note will not appear on final printed 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. UPI recommends that all spreader equipment be calibrated at the time of application to ensure 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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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.

To the extent consistent with applicable law, 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. To the extent consistent with applicable law, 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 consistent with applicable 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 and **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 THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

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.

Rev. 6-13-07

Manufactured for:



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