TALSTAR®

PL

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	
Bifenthrin*	0.2%
Other Ingredients	99.8%
Total	100.0%

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

EPA Reg. No. 101563-246

KEEP OUT OF REACH OF CHILDREN

CAUTION

See back for additional precautionary information.

Specimen Label

PRODUCED FOR
Environmental Science U.S., LLC
5000 CentreGreen Way, Suite 400
Cary, NC 27513

envu™

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.

MEDICAL HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the Environmental Science U.S., LLC Emergency Response Telephone No. 1-800-424-9300 for Emergency Assistance.

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.

For Technical Support or information regarding the use of this product, call 1-800-331-2867.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution

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

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. 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.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

For outdoor use only.

For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Do not apply the product into fish pools, ponds, streams or lakes. Do not apply directly to sewers or storm drains, or any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.

Do not allow the product to enter any drain during or after application.

Do not apply directly to impervious horizontal surfaces such as sidewalks driveways and patios. Sweeping any excess product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.

Do not make applications during rain.

Do not irrigate to the point of runoff.

Do not apply when the wind speed is greater than 15 mph.

Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.

Resistance Management: 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 a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

Product Information

For use on plants intended for aesthetic purposes or climate modification and being grown in interior plantscapes, ornamental gardens or parks, or lawns or grounds.

Not for use on plants being grown for sale of other commercial use, or for commercial seed production, or for research purposes.

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

LAWN AND PERIMETER

Application Information

Apply this product directly to the lawn or garden area.

Water treated area as directed on this label. Do not water to the point of run-off.

Broadcast with suitable application equipment to ensure uniform coverage over the treatment area.

Use Rate Conversion		
lbs TALSTAR® PL Granular Insecticide per 1000 sq ft	**lbs TALSTAR PL Granular Insecticide per acre**	**lbs bifenthrin per acre**
1.15	50	0.1
2.3	100	0.2
2.9	125	0.25
3.9	170	0.34
4.6	200	0.4

The maximum single and annual application rate is 200 lbs product (equivalent to 0.4 lbs bifenthrin) per acre per year.

Do not apply more than 100 lbs product (0.2 lbs bifenthrin) 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 200 lbs product (0.4 lbs bifenthrin) per acre per application on non-residential use sites (i.e., around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields. **In settings where children may visit and application rates are over 170 lbs product (0.34 lbs bifenthrin) per acre per application, then granules must be watered in.**

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. At the discretion of the applicator, TALSTAR PL Granular insecticide may be applied at rates up to 0.4 lbs bifenthrin to control each of the listed pests.

Pest	Application Rate		
	lbs product per 1000 sq ft	**lbs product per acre**	**lbs bifenthrin per acre**
Armyworms Cutworms Sod Webworm	1.15	50	0.1
Armyworms, Cutworms, and Sod Webworms: To ensure optimum control, irrigate the treated area with up to 0.1 inches of water immediately after application to activate (release from the granule) the insecticide.			
Annual Bluegrass Weevil *(Hyperodes)* (Adult) Billbugs (Adult) Black Turfgrass Ataenius (Adult) Leafhoppers Mealybugs	1.15 - 2.3	50 - 100	0.1 - 0.2
Annual Bluegrass Weevil *(Hyperodes)* adults: Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing. **Billbug adults:** Applications should be made when adult billbugs are first observed 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 regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs. **Black Turfgrass Ataenius adults:** Applications should be made during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea *(Spiraea vanhouttei)* and horse chestnut *(Aesculus hippocastanum)*. The July application should be timed to coincide with the blooming of Rose of Sharon *(Hibiscus syriacus)*.			
Ants Centipedes Chinch Bugs European Crane Flies (Larvae) Fleas (Larvae) Fleas (Adult) Imported Fire Ants (Adult) Imported Fire Ants (Mounds) Millipedes Mole Cricket (Adult) Mole Cricket (Nymph) Pillbugs Scorpions Sowbugs Ticks	2.3 - 4.6	100 - 200	0.2 - 0.4
Chinch Bugs: Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigate the treated area with up to 0.25 inches of water immediately after application to activate (release from the granule) the insecticide. Chinch bugs can be one of the most difficult pests to control in grasses and the higher applications rates may be required to control populations that contain both nymphs and adults during the summer. **European Crane Flies:** Treatments should be made to control early to mid-season larvae (approximately August - February) as they feed on plant crowns. Treatments made to late-season larvae (approximately March - April) may only provide suppression. Consult your local extensions agent for specific recommendations for your area. **Flea larvae:** Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Irrigate the treated area with up to 0.5 inches of water immediately after application to activate (release from the granule) the insecticide. **Imported Fire Ants:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound treatments that will control existing colonies. If the soil is not moist, then it is important to irrigate before application. Broadcast treatments should apply 0.2 - 0.4 lbs, bifenthrin per acre. Mounds should be treated by applying 1/2 cup of TALSTAR PL Granular insecticide per mound and then drenching the mound with 1-2 gallons of water. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. Treat three feet out around the mound. For best results, apply in cool weather (65 - 80˚ F) or in early morning or late evening hours. This treatment will kill the queen within 24 hours of application. Application of 0.25 lbs bifenthrin per acre will provide six months residual activity for control of foraging Imported Fire Ants and newly mated Fly-In Queens.			

(continued)

Mole Cricket (Adults): Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring 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. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

Mole Cricket (Nymphs): Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to 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 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.

Scorpions: To ensure optimum control, treat the building perimeter at dusk to prevent outdoor scorpions from entering the building. Scorpions reside hidden in cracks and voids during the day and are active at night at temperatures above 77°F/25°C. Resting areas can be identified at night using a blacklight (UV bulb) as scorpions will fluoresce. These areas should also be treated. Prior to treatment, to increase treatment efficacy, remove trash, debris, or firewood that scorpions may use as resting sites.

Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever): Do not make spot applications. 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 *(Ixodes* sp.*)* have a complicated life cycle that ranges over a two year period and involves four life stages. Applications should be made in mid to late-spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

Perimeter: Apply to ground area up to 7 feet wide around and adjacent to the structure. See table below.

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

Application Rate: lbs per 1000 sq ft	Band Width (ft)	lbs TALSTAR PL Granular Insecticide for Perimeter Applications Linear Distance (Feet) Around Structure							
		100	**150**	**200**	**250**	**300**	**400**	**500**	**1000**
2.3	5	1.3	1.9	2.5	3.1	3.6	4.8	5.9	11.7
2.3	7	2.0	2.8	3.6	4.4	5.2	6.8	8.4	16.5
3.0	5	1.7	2.5	3.2	4.0	4.7	6.2	7.7	15.2
3.0	7	2.6	3.6	4.7	5.7	6.8	8.9	11.0	21.5
3.5	5	2.0	2.9	3.8	4.7	5.5	7.3	9.0	17.8
3.5	7	3.0	4.2	5.4	6.7	7.9	10.3	12.8	25.0
4.6	5	2.7	3.8	5.0	6.1	7.3	9.6	11.9	23.4
4.6	7	3.9	5.5	7.1	8.8	10.4	13.6	16.8	32.9
Note: The amounts of TALSTAR PL Granular insecticide listed in this table are based on the total area being treated. This area is determined by multiplying the linear distance by the band width and then adding to that 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).									

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 TALSTAR PL Granular insecticide if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

SPREADER EQUIPMENT SETTINGS

Broadcast application should be performed with a calibrated commercial broadcast spreader to evenly distribute the granules. Approximate settings for several models are provided in the table below.

TALSTAR PL Granular Insecticide Spreader Setting Guide							
Application Rate lbs/1000 sq ft	**LESCO® Broadcast - new**	**LESCO® Broadcast - old**	**SCOTTS® HANDYGREEN® II**	**SCOTTS® SPEEDYGREEN™ 2000**	**SCOTTS® Standard Broadcast**	**GANDY® Models 42, 36, 30, 24"**	**SPYKER® All Models (Push)**
1.15 lbs	5	A + 1/2	2	--	**	10.5	2
2.3 lbs	7	B + 1/4	3	2*	**	12	2.6
4.6 lbs	9	C + 1/2	5	3 1/4	3	16	3.1
Effective spread width (Ft)	10	10	10	10	10	Model number reflects width	10
Ground Speed at ~3.1 mph for all settings *2 is the lowest setting for this model **This model does not have settings fine enough for this application							

SPOT TREATMENT APPLICATIONS

Spot treatments must not exceed two square feet in size (for example, 2 ft by 1 ft or 4 ft by 0.5 ft).

Fire ant mound treatment: Apply 1/2 cup of TALSTAR PL Granular insecticide per mound and then drench the mound with 1-2 gallons of water. The mound should be drenched with sufficient force to break its apex and allow the insecticide to flow into the ant tunnels. Treat three feet out around the mound. For best results, apply in cool weather (65 to 80˚F) or in early morning or late evening hours. Treat new mounds as they appear. **Food utensils such as teaspoons and measuring cups should not be used for food purposes after use with insecticide.**

INDUSTRIAL NON-AGRICULTURAL APPLICATIONS

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

Broadcast and Spot Applications: For the control of actively foraging ants (including Imported Fire Ants) broadcast uniformly 2.3 - 4.6 lbs product per 1000 sq ft (0.2 - 0.4 lbs bifenthrin per acre). For Imported Fire Ants treatment recommendations, refer to the application rate table in the **LAWN AND PERIMETER** section.

Pad Mounted Electrical Sites: To reduce or prevent ant mound building activity on electrical pads, uniformly distribute 1.0 - 1.5 Tablespoons (0.06 - 0.09 lbs) of TALSTAR PL Granular insecticide per 4 sq ft of mounting pad. Where existing transformers are completely or partially filled with soil excavated by resident ants, remove any excess fill and level the remaining soil prior to application. **Food utensils such as tablespoons must not be used for food purposes after use in measuring pesticides.**

Note: Electrical transformers appear to be more attractive to ants during the cooler months. For best results treat in the Fall or early Spring.

STORAGE AND DISPOSAL

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. You may contact the Environmental Science U.S., LLC Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Environmental Science U.S., LLC Emergency Response Telephone No. is 1-800-424-9300.

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: Non-refillable. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or by burning. Do not burn unless allowed by state or local authorities. If burned, stay out of smoke.

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 must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Turf or plant injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or conditions beyond the control of Environmental Science U.S., LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Environmental Science U.S., LLC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ENVIRONMENTAL SCIENCE U.S., LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or Environmental Science U.S., LLC, and buyer assumes the risk of any such use.

To the extent consistent with applicable law, Environmental Science U.S., LLC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW,** THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ENVIRONMENTAL SCIENCE U.S., LLC 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 ENVIRONMENTAL SCIENCE U.S., LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

Owned or Licensed U.S. Patents for this product can be found at https://patent.envu.com

Envu and the Envu logo are trademarks and TALSTAR® is a registered trademark owned by Environmental Science U.S., LLC or one of its affiliates.
LESCO® is a registered trademark owned by LESCO, Inc.
SCOTTS® and HANDYGREEN® are registered trademarks owned by OMS Investments, Inc.
SPEEDYGREEN is a trademark owned by Everris International B.V.
GANDY® is a trademark owned by Dale E. Gandrud.
SPYKER® is a trademark owned by Brinly-Hardy Company.

Specimen Label

TALSTAR® PL

Specimen Label

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	
Bifenthrin*	0.2%
Other Ingredients	99.8%
Total	100.0%

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

EPA Reg. No. 101563-246 **EPA Est. No.**

KEEP OUT OF REACH OF CHILDREN

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See back for additional precautionary information.

Specimen Label

PRODUCED FOR
Environmental Science U.S., LLC
5000 CentreGreen Way, Suite 400
Cary, NC 27513

SKU: D00001595
22053739B 250407AV1
Net Contents:
25 Pounds

envu™

8 10112 10048 8

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.

MEDICAL HOTLINE NUMBER
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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.

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It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

For outdoor use only.

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Do not apply the product into fish pools, ponds, streams or lakes. Do not apply directly to sewers or storm drains, or any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.

Do not allow the product to enter any drain during or after application.

Do not apply directly to impervious horizontal surfaces such as sidewalks driveways and patios. Sweeping any excess product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.

Do not make applications during rain.

Do not irrigate to the point of runoff.

Do not apply when the wind speed is greater than 15 mph.

Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.

Resistance Management: 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 a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

Product Information

For use on plants intended for aesthetic purposes or climate modification and being grown in interior plantscapes, ornamental gardens or parks, or lawns or grounds.

Not for use on plants being grown for sale of other commercial use, or for commercial seed production, or for research purposes.

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

LAWN AND PERIMETER

Application Information

Apply this product directly to the lawn or garden area.

Water treated area as directed on this label. Do not water to the point of run-off.

Broadcast with suitable application equipment to ensure uniform coverage over the treatment area.

Use Rate Conversion		
lbs TALSTAR® PL Granular Insecticide per 1000 sq ft	**lbs TALSTAR PL Granular Insecticide per acre**	**lbs bifenthrin per acre**
1.15	50	0.1
2.3	100	0.2
2.9	125	0.25
3.9	170	0.34
4.6	200	0.4

Specimen Label

The maximum single and annual application rate is 200 lbs product (equivalent to 0.4 lbs bifenthrin) per acre per year.

Do not apply more than 100 lbs product (0.2 lbs bifenthrin) 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 200 lbs product (0.4 lbs bifenthrin) per acre per application on non-residential use sites (i.e., around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields. **In settings where children may visit and application rates are over 170 lbs product (0.34 lbs bifenthrin) per acre per application, then granules must be watered in.**

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. At the discretion of the applicator, TALSTAR PL Granular insecticide may be applied at rates up to 0.4 lbs bifenthrin to control each of the listed pests.

Pest	Application Rate		
	lbs product per 1000 sq ft	lbs product per acre	lbs bifenthrin per acre
Armyworms Cutworms Sod Webworm	1.15	50	0.1
Armyworms, Cutworms, and Sod Webworms: To ensure optimum control, irrigate the treated area with up to 0.1 inches of water immediately after application to activate (release from the granule) the insecticide.			
Annual Bluegrass Weevil *(Hyperodes)* (Adult) Billbugs (Adult) Black Turfgrass Ataenius (Adult) Leafhoppers Mealybugs	1.15 - 2.3	50 - 100	0.1 - 0.2
Annual Bluegrass Weevil *(Hyperodes)* adults: Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing. **Billbug adults:** Applications should be made when adult billbugs are first observed 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 regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs. **Black Turfgrass Ataenius adults:** Applications should be made during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea *(Spiraea vanhouttei)* and horse chestnut *(Aesculus hippocastanum)*. The July application should be timed to coincide with the blooming of Rose of Sharon *(Hibiscus syriacus)*.			
Ants Centipedes Chinch Bugs European Crane Flies (Larvae) Fleas (Larvae) Fleas (Adult) Imported Fire Ants (Adult) Imported Fire Ants (Mounds) Millipedes Mole Cricket (Adult) Mole Cricket (Nymph) Pillbugs Scorpions Sowbugs Ticks	2.3 - 4.6	100 - 200	0.2 - 0.4
Chinch Bugs: Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigate the treated area with up to 0.25 inches of water immediately after application to activate (release from the granule) the insecticide. Chinch bugs can be one of the most difficult pests to control in grasses and the higher applications rates may be required to control populations that contain both nymphs and adults during the summer. **European Crane Flies:** Treatments should be made to control early to mid-season larvae (approximately August - February) as they feed on plant crowns. Treatments made to late-season larvae (approximately March - April) may only provide suppression. Consult your local extensions agent for specific recommendations for your area. **Flea larvae:** Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Irrigate the treated area with up to 0.5 inches of water immediately after application to activate (release from the granule) the insecticide. **Imported Fire Ants:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound treatments that will control existing colonies. If the soil is not moist, then it is important to irrigate before application. Broadcast treatments should apply 0.2 - 0.4 lbs, bifenthrin per acre. Mounds should be treated by applying 1/2 cup of TALSTAR PL Granular insecticide per mound and then drenching the mound with 1-2 gallons of water. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. Treat three feet out around the mound. For best results, apply in cool weather (65 - 80˚ F) or in early morning or late evening hours. This treatment will kill the queen within 24 hours of application. Application of 0.25 lbs bifenthrin per acre will provide six months residual activity for control of foraging Imported Fire Ants and newly mated Fly-In Queens.			

Specimen Label

(continued)

Mole Cricket (Adults): Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring 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. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

Mole Cricket (Nymphs): Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to 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 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.

Scorpions: To ensure optimum control, treat the building perimeter at dusk to prevent outdoor scorpions from entering the building. Scorpions reside hidden in cracks and voids during the day and are active at night at temperatures above 77°F/25°C. Resting areas can be identified at night using a blacklight (UV bulb) as scorpions will fluoresce. These areas should also be treated. Prior to treatment, to increase treatment efficacy, remove trash, debris, or firewood that scorpions may use as resting sites.

Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever): Do not make spot applications. 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 *(Ixodes* sp.*)* have a complicated life cycle that ranges over a two year period and involves four life stages. Applications should be made in mid to late-spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

Perimeter: Apply to ground area up to 7 feet wide around and adjacent to the structure. See table below.

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

Application Rate: lbs per 1000 sq ft	Band Width (ft)	lbs TALSTAR PL Granular Insecticide for Perimeter Applications Linear Distance (Feet) Around Structure							
		100	150	200	250	300	400	500	1000
2.3	5	1.3	1.9	2.5	3.1	3.6	4.8	5.9	11.7
2.3	7	2.0	2.8	3.6	4.4	5.2	6.8	8.4	16.5
3.0	5	1.7	2.5	3.2	4.0	4.7	6.2	7.7	15.2
3.0	7	2.6	3.6	4.7	5.7	6.8	8.9	11.0	21.5
3.5	5	2.0	2.9	3.8	4.7	5.5	7.3	9.0	17.8
3.5	7	3.0	4.2	5.4	6.7	7.9	10.3	12.8	25.0
4.6	5	2.7	3.8	5.0	6.1	7.3	9.6	11.9	23.4
4.6	7	3.9	5.5	7.1	8.8	10.4	13.6	16.8	32.9

Note: The amounts of TALSTAR PL Granular insecticide listed in this table are based on the total area being treated. This area is determined by multiplying the linear distance by the band width and then adding to that 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).

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 TALSTAR PL Granular insecticide if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

SPREADER EQUIPMENT SETTINGS

Broadcast application should be performed with a calibrated commercial broadcast spreader to evenly distribute the granules. Approximate settings for several models are provided in the table below.

TALSTAR PL Granular Insecticide Spreader Setting Guide							
Application Rate lbs/1000 sq ft	LESCO® Broadcast - new	LESCO® Broadcast - old	SCOTTS® HANDYGREEN® II	SCOTTS® SPEEDYGREEN™ 2000	SCOTTS® Standard Broadcast	GANDY® Models 42, 36, 30, 24"	SPYKER® All Models (Push)
1.15 lbs	5	A + 1/2	2	--	**	10.5	2
2.3 lbs	7	B + 1/4	3	2*	**	12	2.6
4.6 lbs	9	C + 1/2	5	3 1/4	3	16	3.1
Effective spread width (Ft)	10	10	10	10	10	Model number reflects width	10

Ground Speed at ~3.1 mph for all settings
*2 is the lowest setting for this model
**This model does not have settings fine enough for this application

Specimen Label

SPOT TREATMENT APPLICATIONS

Spot treatments must not exceed two square feet in size (for example, 2 ft by 1 ft or 4 ft by 0.5 ft).

Fire ant mound treatment: Apply 1/2 cup of TALSTAR PL Granular insecticide per mound and then drench the mound with 1-2 gallons of water. The mound should be drenched with sufficient force to break its apex and allow the insecticide to flow into the ant tunnels. Treat three feet out around the mound. For best results, apply in cool weather (65 to 80˚F) or in early morning or late evening hours. Treat new mounds as they appear. **Food utensils such as teaspoons and measuring cups should not be used for food purposes after use with insecticide.**

INDUSTRIAL NON-AGRICULTURAL APPLICATIONS

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

Broadcast and Spot Applications: For the control of actively foraging ants (including Imported Fire Ants) broadcast uniformly 2.3 - 4.6 lbs product per 1000 sq ft (0.2 - 0.4 lbs bifenthrin per acre). For Imported Fire Ants treatment recommendations, refer to the application rate table in the **LAWN AND PERIMETER** section.

Pad Mounted Electrical Sites: To reduce or prevent ant mound building activity on electrical pads, uniformly distribute 1.0 - 1.5 Tablespoons (0.06 - 0.09 lbs) of TALSTAR PL Granular insecticide per 4 sq ft of mounting pad. Where existing transformers are completely or partially filled with soil excavated by resident ants, remove any excess fill and level the remaining soil prior to application. **Food utensils such as tablespoons must not be used for food purposes after use in measuring pesticides.**

Note: Electrical transformers appear to be more attractive to ants during the cooler months. For best results treat in the Fall or early Spring.

STORAGE AND DISPOSAL

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. You may contact the Environmental Science U.S., LLC Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Environmental Science U.S., LLC Emergency Response Telephone No. is 1-800-424-9300.

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: Non-refillable. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration, or by burning. Do not burn unless allowed by state or local authorities. If burned, stay out of smoke.

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.

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