

# Hi-Yield®



## CONTROLS TICKS!

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.

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

SEE BACK PANEL FOR FIRST AID AND  
ADDITIONAL PRECAUTIONARY STATEMENT

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
In the event of a medical or chemical emergency contact ChemTel Inc. North America 1-800-255-3924

NET WEIGHT 11.5 LBS. (5.22 KG)

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Harmful if absorbed through skin. Causes moderate eye irritation. 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.

**FIRST AID**

<b>If On Skin Or Clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If In Eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**In the event of a medical or chemical emergency, contact**  **North America 1-800-255-3924 or Worldwide Intl. + 01- 813-248-0585**

**NOTE TO PHYSICIAN**

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

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

Do not broadcast apply more than 0.4 pounds a.i. (200 pounds of this product) per acre per year. However, for residential lawn use, do not apply more than 0.2 pounds a.i. per acre per application.

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

**LAWN AND PERIMETER APPLICATIONS**

Lawn Application: Broadcast this product with suitable application equipment to ensure uniform coverage over the treatment area. Do not apply more than 0.2 pound 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 pound 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).

**APPLICATION RATES**

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, this product may be applied at up to 0.4 pounds a.i./acre on non-residential use sites to control each of the pests listed in the table. See specific pest for recommended level. Irrigation or watering by 0.1 to 0.5 inches immediately after application generally improves the effectiveness of this product.

PEST	ACTIVE INGREDIENT POUNDS PER ACRE	APPLICATION RATE OF THIS PRODUCT	
Armyworms <sup>1</sup> Cutworms <sup>1</sup> Sod Webworm <sup>1</sup>	0.1 pound a.i./acre	50 pounds per acre	1.15 pounds per 1,000 square feet
Annual Bluegrass Weevils (Hyperodes) (Adult) <sup>2</sup> Billbugs (Adult) <sup>3</sup> Black Turfgrass Ataenius (Adult) <sup>4</sup> Leafhoppers Mealybugs	0.1 to 0.2 pound a.i./acre	50 to 100 pounds per acre	1.15 to 2.3 pounds per 1,000 square feet
European Crane Flies	0.15 to 0.3 pound a.i./acre	75 to 150 pounds per acre	1.75 to 3.50 pounds per 1,000 square feet
Ants Centipedes Chinch Bugs <sup>5</sup> Fleas (Larvae) <sup>6</sup> Fleas (Adult) Imported Fire Ants (Adult) <sup>7</sup> Imported Fire Ants (Mounds) <sup>7</sup> Millipedes Mole Cricket (Adult) <sup>8</sup> Mole Cricket (Nymph) <sup>8</sup> Scorpions <sup>10</sup> Ticks <sup>11</sup>	0.2 to 0.4 pound a.i./acre	100 to 200 pounds per acre	2.3 to 4.6 pounds per 1,000 square feet
Pillbugs Sowbugs	0.4 pound a.i./acre	200 pounds per acre	4.6 pounds per 1,000 square feet

**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, stream, river, stream, stream, stream, 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.**

**1Armyworms, 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.

**2Annual Bluegrass Weevil (Hyperodes) adults:** Applications should be timed to control adult weevils as they leave their over-wintering 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.

**3Billbug 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.

**4Black 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 synacus*).

**5Chinch 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 application rates may be required to control populations that contain both nymphs and adults during the summer.

**6Flea 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.

**7Imported 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 0.4 pound a.i./acre. Mounds should be treated by applying 1/2 cup of this product per mound and then drenching the mound with 1 to 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. A four-foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65-80°F) or in early morning or late evening hours. Food utensils such as spoons and measuring cups should not be used for food purposes after use in measuring pesticides. Application of 125 lbs./acre of this product will provide 6 months residual activity for the control of foraging fire ants and newly mated fly-in queens.

**8Mole 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).

**9Mole 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.

**10Scorpions:** 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.

**11Ticks (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 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, fence lines, planter areas, vegetation areas and mulch areas.

APPLICATION RATE POUNDS PER 1,000 SQ. FT.	BAND WIDTH	POUNDS OF THIS PRODUCT FOR PERIMETER APPLICATIONS LINEAR DISTANCE (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	10.8	13.0	15.2	19.8	24.4	47.4

**Note:** The amounts of this product listed in the above 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).

**Fire Ant Mound Treatment:** Apply 1/2 cup of this product per mound and then drench the mound with 1 to 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. 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 Spot Applications:** For the control of actively foraging ants (including Imported Fire Ants) broadcast uniformly 2.3 to 4.6 pounds of this product per 1,000 square feet (0.2 to 0.4 pounds a.i./acre). See section under **Lawn Applications** for additional rate recommendations.

**Pad Mounted Electrical Sites:** To reduce or prevent ant mound building activity on electrical pads, uniformly distribute 1.0 to 1.5 tablespoons (0.06 to 0.09 pounds) of this product per 4 square feet 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.

### RECOMMENDED SPREADER SETTINGS FOR BROADCAST APPLICATIONS

SPREADER	Application Rate lbs./1,000 square feet				
	1.15	1.75	2.30	3.50	4.60
Scotts/Republic Accugreen (Drop)	2	2-¼	2-½	4	4-½
Scotts/Republic Speedy Green (Broadcast)	2	2-½	2-¾	3-¾	4-¾
Ferti-lome/Earthway Ev-N-Spred (Broadcast)	11	12	13	14	16

**Note:** These recommended settings should be used as starting points when calibrating a spreader to achieve the desired application rate of this product. After calibration, the technician should regularly observe the amount of this product that is applied to a known area and make further setting adjustments, as necessary, to maintain the appropriate application rate. Spreaders should be calibrated periodically to ensure that equipment wear or other factors have not altered the flow rate of this product. Calibration instructions are included in the Owner's Manual that was provided by the equipment manufacturer at the time of purchase.

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

#### 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. 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:** **If empty:** Nonrefillable container. Do not reuse or refill this container. Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor (including toilet) or outdoor (including sewer) drain.

#### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

Manufactured By:



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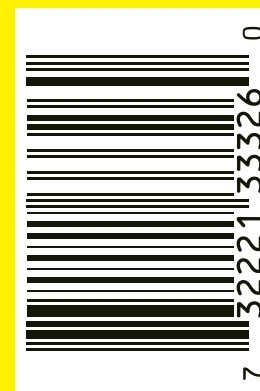
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