

228-498

09/07/2006

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

EPA Reg. Number:  
228-498

Date of Issuance:  
SEP 7 2006

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Bifenthrin 0.2% Granule  
Insecticide

# NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration

(Under FIFRA as amended)

Name and Address of Registrant (include ZIP Code):

Nufarm Americas, Inc.  
133 Burr Ridge Parkway Suite 125A  
Burr Ridge, IL 60527

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

1. You will submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. You will make the following label changes before you release the product for shipment:
  - a) Revise the EPA Registration Number to read "EPA Reg. No. 228-498 ."
  - b) The acute toxicity profile for this product is as follows:

Acute oral toxicity	IV
Acute dermal toxicity	III
Acute inhalation toxicity	IV
Primary eye irritation	III
Primary skin irritation	IV
Dermal sensitization	Neg

Base on the toxicity profile above revise the Precautionary Statements as follows:

"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

Signature of Approving Official:

*George T. LaRocca*  
George T. LaRocca, Product Manager (13), RD/IB (7505C)

Date:

*September 7, 2006*

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c) Add the following to First Aid statement:

If in eyes	-Hold eye open and rinse slowly and gently with water for 15- 20 minutes - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. - Call a poison control center or doctor for treatment advice
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3. Please submit an one year storage stability study for the proposed product along with a corrosion characteristics study. We recommend that observation be made at 0, 3, 6, 9 and 12 months intervals in the storage stability study
4. Please submit three (3) copies of your final printed labeling before releasing the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing amended labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this action, please contact BeWanda Alexander of my team at (703) 305-7460.

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ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
SEP 7 2006  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
228-498

# BIFENTHRIN 0.2% GRANULE INSECTICIDE

ONLY FOR USE AND STORAGE BY COMMERCIAL APPLICATORS  
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 - CAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
For Medical Emergencies Only, Call (877) 325-1840

NOTE Spanish language is optional

EPA REG. NO. 228-  
EPA EST. NO.

MANUFACTURED FOR  
NUFARM AMERICAS INC.  
BURR RIDGE, IL 60527-0866



NET CONTENTS      LBS.

000228-00000.20060221.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION - CAUCION**

Harmful if absorbed through skin. Avoid contact with skin 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	
IF ON SKIN OR CLOTHING	<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>
HOT LINE 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 1-877-325-1840 for emergency medical treatment information.	
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.	

**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. 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 landscapes, 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 ( <i>Hyperodes</i> ) (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

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PEST	ACTIVE INGREDIENT POUNDS PER ACRE	APPLICATION RATE OF THIS PRODUCT	
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>	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, river, stream, wetland, or drainage ditch).

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

**<sup>1</sup>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.

**<sup>2</sup>Annual 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.

**<sup>3</sup>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.

**<sup>4</sup>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 synacus*).

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

**<sup>6</sup>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.

**<sup>7</sup>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 0.4 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.

**<sup>8</sup>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).

**<sup>9</sup>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

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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.

**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.

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	10.6	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

EQUIPMENT	Application Rate lbs./1,000 square feet			PATTERN SETTING	WIDTH
	1.15	2.30	4.60		
LESCO Broadcast	F	G	I	-	10
Prizelawn CBR-III	E 1/2	F 1/2	H 1/2	-	10
Scotts RBA	G 1/2	H 1/2	J 1/2	3	10
Scotts SR2000	H 1/2	I 1/2	L 1/2	8	12
Scotts Handy Green	2	3	4	-	10
Scotts Accupro	4-1/2	4-3/4	5	8	12
Spyker	3-1/2	3-3/4	4-1/4	-	10
Vicon 402*	25	28-1/2	38	-	40
Lely W*	3-3/4	4-1/2	5	III-B	52
Cycloneway	1.5	3	5-3/4	-	4
Earthway 2400	8-1/2	10-1/2	12-1/2	-	10

\*Speed applied: Vicon 5.6 mph, Lely 4.5 mph

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**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:** Paper and plastic bags: Completely empty 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.

### 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. It is impossible to eliminate all risks inherently associated with the use of this product. Desirable plant injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of Nufarm or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Nufarm 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. NUFARM 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 Nufarm, and Buyer assumes the risk of any such use.**

To the extent allowed by law, Nufarm 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 NUFARM 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 NUFARM OR SELLER, THE REPLACEMENT OF PRODUCT.

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

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