

228-439

3-9-2005

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:
228-439

Date of Issuance:
MAR - 9 2005

NOTICE OF PESTICIDE:
 x Registration
 Reregistration

(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:
Bifenthrin PL Granular
Insecticide

Name and Address of Registrant (include ZIP Code):

Nufarms America, Inc.
1333 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.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/ reregistration of your product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Make the labeling changes listed below before you release the product for shipment:
 - a. Add the phrase "EPA Registration No. 228-439".
 - b. Relocate "However, for residential lawn use, do not apply more than 0.2 pounds a.i. per acre per application." from under the heading LAWN AND PERIMETER APPLICATIONS to appear instead directly after "Do not broadcast apply more than 0.4 pounds a.i. (200 pounds of this product) per acre per year." under the heading DIRECTIONS FOR USE.
 - c. In the second sentence under the heading APPLICATION RATES, after "0.4 pounds a.i. per acre" add "on non-residential use sites".

Signature of Approving Official:

Date:

MAR - 9 2005

- d. In the footnote "7Imported Fire Ants" after "For best results, apply in cool weather (65-80°F) or in early morning or late evening hours." add " Food utensils such as spoons and measuring cups should not be used for food purposes after use in measuring pesticides."
- e. In the first sentence of the WARRANTY, revise "Seller warrants that this herbicide..." to read "Seller warrants that this insecticide..."

3. Submit three (3) copies of your final printed labeling before you release 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 constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

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BIFENTHRIN PL GRANULAR INSECTICIDE

ONLY FOR SALE TO, 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: By Weight

Bifenthrin*	0.2%
OTHER INGREDIENTS:	99.8%
TOTAL:	100.0%

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

U.S. Patent No. 4,238,505

**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.)

SEE SIDE PANELS FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

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 BY
NUFARM AMERICAS INC.
BURR RIDGE, IL 60527-0866



NET CONTENTS LBS.

000228-00000.20050118.new

**ACCEPTED
with COMMENTS
In EPA Letter Dated:
MAR - 9 2005**

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
228-439

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

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

FIRST AID	
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
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 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.

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.

However, for residential lawn use, do not apply more than 0.2 pounds a.i. per acre per application.

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 to control each of the pests listed in the table.

PEST	ACTIVE INGREDIENT POUNDS PER ACRE	APPLICATION RATE OF THIS PRODUCT	
Armyworms ¹ Cutworms ¹ Sod Webworm ¹	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) ² Billbugs (Adult) ³ Black Turfgrass Ataenius (Adult) ⁴ 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 fee

PEST	ACTIVE INGREDIENT POUNDS PER ACRE	APPLICATION RATE OF THIS PRODUCT	
Ants Centipedes Chinch Bugs* Fleas (Larvae)* Fleas (Adult) Imported Fire Ants (Adult)* Imported Fire Ants (Mounds)* Millipedes Mole Cricket (Adult)* Mole Cricket (Nymph)* Ticks ¹⁰	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 fee
Pillbugs Sowbugs European Crane Flies	0.4 pound a.i./acre	200 pounds per acre	4.6 pounds per 1,000 square fee

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.

***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*) 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 synacus*).

***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.

***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 eliminate 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. **Note:** a spray rig that is calibrated to apply 0.1 pound a.i./acre (20 ounces) of this product in 2.5 gallons per 1,000 square feet contains the approximate dilution (1 teaspoon per gallon) that is required for Fire Ant mound drenches in the spray tank.

***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

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with the insecticide will be maximized.

TICKS: (Including ticks that 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 under 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 Ticks 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, 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 Hand-Pushed	GROUND SPEED (MPH)	SPREADER SETTING			
		100 POUNDS PER ACRE		200 POUNDS PER ACRE	
		Once Over	Twice Over	Once Over	Twice Over
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

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		SPREADER SETTING			
		100 POUNDS PER ACRE		200 POUNDS PER ACRE	
Equipment Drawn (PTO=540 RPM)	GROUND SPEED (MPH)	Once Over	Twice Over	Once Over	Twice Over
Gandy 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: 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 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.

DEALERS SHOULD SELL IN ORIGINAL PACKAGES ONLY

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.

WARRANTY

Seller warrants that this herbicide conforms to the chemical description on its label. When used in accordance with label directions under normal conditions, this herbicide is reasonably fit for its intended purposes. Since timing, method of application, weather, plant and soil conditions, mixtures with other chemicals, and factors affecting the use of this product are beyond our control, no warranty is given concerning the use of this product contrary to label directions or under conditions which are abnormal or not reasonably foreseeable. The user assumes all risks of any such use. New(010605)