

70127-2

2-4-2003

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division
(7501W) 401 M St., S.W.
Washington, D.C. 20460

EPA Reg.
Number:

70127-2

Date of Issuance:

FEB 4 2003

Term of Issuance:

Unconditional

Name of Pesticide Product:

Novozymes Biofungicide Green
Releaf 710-140

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Novozymes Biologicals, Inc.
5400 Corporate Circle
Salem, VA 24153

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention 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 registration does not eliminate the need for continual reassessment of the pesticide. If EPA determines at any time, that additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under section 3(c)(2)(B) of FIFRA.

This product is registered in accordance with FIFRA section 3(c)(5) and is subject to the following terms and conditions:

- Make the following modifications to your label dated before your release your product for shipment:
 - Change the label by revising the EPA Registration Number to read,
"EPA Reg. No. 70127-2.

- Submit five copies of the revised final printed label before you release the product for shipment.

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

Signature of Approving Official:

Janet L. Andersen, Ph.D., Director
Biopesticides and Pollution Prevention Division (7511C)

Date:

2/4/03

EPA Form 8570

CONCURRENCES

SYMBOL	SURNAME	DATE						
7511C	SC	2/3/03						

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Master Label

(This label bears directions for both commercial and homeowner use)

Novozymes Biofungicide GREEN-RELEAF™ 710-140

Ornamental Turf and Ornamental Plant Liquid Concentrate Fungicide

ACTIVE INGREDIENTS:

Bacillus licheniformis SB3086* 0.14 % (w/v)

Indole-3-butyric Acid ** 0.00096 % (w/v)

OTHER INGREDIENTS: 99.85904% (w/v)

TOTAL: 100.00%

* Contains a minimum of 1.0×10^9 Colony Forming Units (CFU)/ml

** A non-fungicidal plant growth regulating ingredient shown to improve the overall growth and health of turf and ornamental plants.

EPA Registration No.: 70127-
EPA Establishment No.: 70127-VA-001

Net Contents:

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

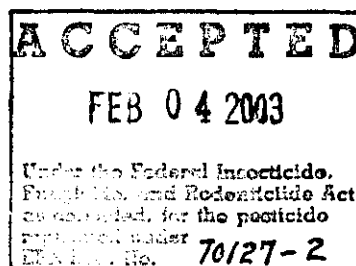
**PRECAUTIONARY STATEMENTS: Hazards To Humans and Domestic Animals –
CAUTION:**

Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long-pants
- Shoes plus socks
- For handling activities use a non-powered air purifying NIOSH approved respirator with any N, P, R, or HE filter.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.



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USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

[commercial]

Environmental Hazards: 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 contaminate water when disposing of residual product or equipment washwaters. Do not use this product on plants intended for food or feed. Do not feed treated plants to livestock or domestic animals.

[homeowner]

Environmental Hazards: Do not apply to water. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not use this product on plants intended for food or feed. Do not feed treated plants to livestock or domestic animals.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product when weather conditions, cultural practices, extreme moisture conditions or other environmental conditions are outside of the ranges that are generally recognized as being conducive to good growing practices. Do not apply with solutions containing strong acids, bases, oxidizing agents, or solvents.

[commercial]

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

[homeowner]

Keep unprotected persons out of area until sprays have dried.

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AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls and shoes plus socks and protective eyewear.

[commercial]

Product Description:

The GREEN-RELEAF™ 710-140 biofungicide is a concentrated suspension of the bacterial spores of the organism *Bacillus licheniformis* SB3086 (patent pending), which has been found effective as a natural inhibitor of a variety of agronomically important fungal disease species

Product Use Sites:

The GREEN-RELEAF™ 710-140 biofungicide formulation is applied as a foliar spray or soil drench on ornamental turf, ornamental plants, and conifers at the following sites: lawns, golf courses, sports turf, turf farms, greenhouses, nurseries, ornamental gardens, conifer farms and arboretums. GREEN-RELEAF™ 710-140 biofungicide is a preventative or curative treatment for a variety of fungal diseases, such as those listed below.

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Targeted Diseases on Ornamental Turf, Lawns, Golf Courses and Other Turfgrass:

Dollar Spot	<i>Sclerotinia homoeocarpa</i>
Rhizoctonia Blight	<i>Rhizoctonia solani</i> , <i>R. zeae</i> , <i>R. cerealis</i>
Gray Leaf Spot	<i>Pyricularia grisea</i> , <i>P. oryzae</i>
Red Thread	<i>Laetisaria fuciformis</i>
Anthrachnose	<i>Colletotrichum graminicola</i>
Copper Spot	<i>Gloeocercospora sorghi</i>
Stem Rust	<i>Puccinia graminis</i>
Dichondra Leaf Spot	<i>Alternaria spp.</i>
Gray Snow Mold	<i>Typhula spp.</i>
Pink Snow Mold	<i>Microdochium nivale</i>
Leaf Spot/Melting Out	<i>Drechslera poae</i>
Rust	<i>Puccinia spp.</i> , <i>Uromyces spp.</i>

Targeted Diseases on Ornamental Plants:

Actinopelte Leafspot	Marssonina Leafspot
Alternaria Leafspot/Leafblight	Monilinia Blossom Blight
Anthrachnose Leaf Blotch, Spot	Mycosphaerella Ray Blight
Ascochyta Blight	Myrothecium Leafspot
Bipolaris Leafspot	Nematostoma Leaf Blight
Black Spot on roses	Ovulinia Flower Blight
Botrytis Leafspot, Leaf Blight	Phyllosticta Leafspot
Botrytis Flower Spot, Flower Blight	Phytophthora Leaf Blight, Dieback
Cephalosporium Leafspot	Powdery Mildew:
Cercospora Leafspot	<i>Microsphaera spp.</i>
Cercosporidium Leafspot	<i>Erysiphe cichoracearum</i>
Coryneum Blight	Rhizoctonia Web Blight
Corynespora Leafspot	Ramularia Leafspot
Curvularia Leafspot	Rust:
Curvularia Flower Spot	<i>Gymnosporangium spp.</i>
Cylindrosporium Leafspot	<i>Puccinia spp.</i>
Cylindrocladium Stem Canker	Sclerotinia Flower Blight
Dactylaria Leafspot	Septoria Leafspot
Didymellina Leafspot	Scab: <i>Venturia inaequalis</i>
Drechslera Ink Spot	Sphaeropsis Leafspot
Drechslera Leafspot	Stagonospora Leaf Scorch
Fabraea Leafspot	Tan Leafspot (Curvularia)
Fusarium Leafspot	Volutella Leaf Blight
Gloeosporium Black Leafspot	

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Golf Course greens, tees, fairways, ornamental turfgrass, lawns, and sports turf

Apply GREEN-RELEAF™ 710-140 in an adequate amount of water to provide complete coverage. For greens and tees, amount of water to deliver GREEN-RELEAF™ 710-140 may vary from 2-4 gallons per 1000 square feet depending on application equipment. For fairways, the amount of water to deliver GREEN-RELEAF™ 710-140 may vary from 0.7-2.0 gallons per 1000 square feet. See the following chart for application rates, timing, and mixing instructions. GREEN-RELEAF™ 710-140 contains small amounts of urea to enhance the rate of spore germination. At the standard application rate (20 fl.oz. of Green Releaf 710-140 / 1000 ft²), 0.14 lb. Nitrogen is applied per 1000 ft². For best results, use the diluted product within 8 hours of mixing. Do not store diluted product for more than 24 hours.

<u>Treatment Sites</u>	<u>Conditions</u>	<u>Application Rate</u> (fl. oz. 710-140 / 1000 ft ²)	<u>Frequency of Application</u> ¹	<u>Mixing Instructions</u> (example when applying in 2 gal / 1000 ft. sq.)
Golf Course greens, tees, fairways, ornamental turfgrass, lawns, and sports turf.	Standard Application Use this rate when light disease symptoms have become evident; or when conditions are conducive to disease development in areas with historical occurrence.	20	14 days ¹	Mix 8 gallons 710-140 in 100 gallons water.
		10	7 days ¹	Mix 4 gallons 710-140 in 100 gallons water.
		5	3-4 days ¹	Mix 2 gallons 710-140 in 100 gallons water.
	Moderate Application Use this rate when significant disease pressure has become evident.	20 – 25	7-14 days ¹	Mix 8 to 9 ¼ gallons 710-140 in 100 gallons water.
	High Application Use this rate when high disease pressure has become evident.	20	3-4 days ¹	Mix 8 gallons 710-140 in 100 gallons water.

¹Note Nitrogen contribution per application: at standard application rate (20 fl.oz./ 1000 ft²), 0.14 lb. Nitrogen is applied per 1000 ft².

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Ornamental Plants including Greenhouse Applications, Nursery, Ornamental Gardens, and Arborculture Uses:

Apply in a spray or soil drench to run-off. Apply when symptoms of the disease (see “Target Diseases on Ornamental Plants” for listed diseases) are evident on the target plants, when typical disease symptoms are known to occur in your area, or when the disease is reported in your area (check with your local USDA Extension Service Office). Repeat application every 7-14 days until disease symptoms have resolved. For best results, use the diluted product within 8 hours of mixing. Do not store diluted product for more than 24 hours.

<u>Treatment Sites</u>	<u>Conditions</u>	<u>Application Rate</u> (fl. oz. 710-140 / gal. water)	<u>Frequency of Application</u>	<u>Mixing Instructions</u>
Ornamental Plants including Greenhouse Applications, Nursery, Ornamental Gardens, Conifers and Arborculture Uses	Standard Application Use this rate when light disease symptoms have become evident; or when conditions are conducive to disease development in areas with historical occurrence.	1.3	7-14 days	Mix 128 fl. oz. (1 gallon) 710-140 in 100 gallons water. Spray or soil drench to run-off.
	High Application Use this rate when high disease pressure has become evident.	2.6	7-14 days	Mix 2 gallons 710-140 in 100 gallons water. Spray or soil drench to run-off.

INCLUSION IN PEST MANAGEMENT PROGRAM:

GREEN-RELEAF™ 710-140 also works well as part of an Integrated Pest Management (IPM) program, especially to help reduce the occurrence of disease resistance to other fungicide products. In addition, during times of high disease pressure, such combinations may provide optimal pest management while reducing overall yearly pesticide application amounts. Such an integrated program may be achieved by regular rotation of the treatments using GREEN-RELEAF™ 710-140 with treatments of other fungicides. Another approach is to apply GREEN-RELEAF™ 710-140 until the onset of high disease pressure, then to substitute another fungicide (at standard application rates) for a brief period (1-4 treatments) followed by a return to standard applications of GREEN-RELEAF™ 710-140.

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Tank Mixing:

Due to the nature of this microbial product (contains live spores), tank mixing of GREEN-RELEAF 710-140 with solutions containing strong acids, bases, oxidizing agents, or solvents should be avoided.

[homeowner]

Product Description:

The GREEN-RELEAF™ 710-140 biofungicide is a concentrated suspension of the bacterial spores of the organism *Bacillus licheniformis* SB3086 (patent pending), which has been found effective as a natural inhibitor of a variety of agronomically important fungal disease species

Product Use Sites:

The GREEN-RELEAF™ 710-140 biofungicide formulation is typically applied as a foliar spray or soil drench on lawns and ornamental lawns.

Targeted Diseases on Lawns and Ornamental Lawns:

Dollar Spot	<i>Sclerotinia homoeocarpa</i>
Rhizoctonia Blight	<i>Rhizoctonia solani</i> , <i>R. zeae</i> , <i>R. cerealis</i>
Gray Leaf Spot	<i>Pyricularia grisea</i> , <i>P. oryzae</i>
Red Thread	<i>Laetisaria fuciformis</i>
Anthraxnose	<i>Colletotrichum graminicola</i>
Copper Spot	<i>Gloeocercospora sorghi</i>
Stem Rust	<i>Puccinia graminis</i>
Dichondra Leaf Spot	<i>Alternaria spp.</i>
Gray Snow Mold	<i>Typhula spp.</i>
Pink Snow Mold	<i>Microdochium nivale</i>
Leaf Spot/Melting Out	<i>Drechslera poae</i>
Rust	<i>Puccinia spp.</i> , <i>Uromyces spp.</i>

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Homeowner Lawn and Ornamental Lawn Use: For application on home or ornamental lawns, mix 12.5 fl. oz. 710-140 per 1 gallon of water and apply evenly over 500 square feet. Apply once every 7-14 days, depending on disease severity.

For best results, use the diluted product within 8 hours of mixing. Do not store diluted product for more than 24 hours.

<u>Treatment Sites</u>	<u>Conditions</u>	<u>Application Rate</u> (fl. oz. 710-140 / 500 ft ²)	<u>Frequency of Application</u> ¹	<u>Mixing Instructions</u>
Homeowner Lawn and Ornamental Lawn	Standard Application Use this rate when light disease symptoms have become evident; or when conditions are conducive to disease development in areas with historical occurrence.	13	14 days ¹	Mix 13 fl. Oz. 710-140 in 1 gallon of water and apply evenly per 500 ft ² .
	Moderate Application Use this rate when significant disease pressure has become evident.	13	7-14 days ¹	Mix 13 fl. Oz. 710-140 in 1 gallon of water and apply evenly per 500 ft ² .
	High Application Use this rate when high disease pressure has become evident.	13	7 days ¹	Mix 13 fl. Oz. 710-140 in 1 gallon of water and apply evenly per 500 ft ² .

¹Note Nitrogen contribution per application: at standard application rate (13 fl.oz./ 500 ft²), 0.0875 lb. Nitrogen is applied per 500 ft². Apply more frequently with increased disease severity.

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STORAGE AND DISPOSAL:

Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage:

GREEN-RELEAF™ 710-140 is a stable suspension of microbial spores. For best results, store within the recommended storage temperature range of 40° F to 95° F (4° C to 35° C). Avoid longer-term storage at warmer temperatures or in direct sunlight. This product can also be stored at lower temperatures (<40° F) for up to 2 weeks as freezing will not affect its usefulness. Store product in original container in a secure location.

[commercial]

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:

Triple-rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[homeowner]

Pesticide and Container Disposal:

If empty: Do not reuse this container. Place in trash or offer for recycling if available.

If partially filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully.

Novozymes Biologicals warrants that at the time of the first sale of this product it conforms to the chemical description on the label and when used according to the label directions under normal growing conditions is reasonably fit for the purposes referred to above. Buyers/Users of this product assume full risk for any use contrary to the specified directions. If this product does not perform as warranted above and to the extent permitted by state law, customer's sole remedy for breach of warranty shall be replacement of the product or refund of the purchase price paid, at the option of Novozymes Biologicals.

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EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO.

Prompt Notice of Claim:

To the extent permitted by state law, Novozymes Biologicals must have prompt notice as soon as Buyer or User has reason to believe they may have a claim (not to exceed twenty-one days from date of application) so that an inspection of the affected property and growing crops may be made. Unless Buyer and User(s) shall promptly notify Novozymes Biologicals of any claims, the manufacturer does not intend to pay any damages.

Manufactured By:

Novozymes Biologicals, Inc.
5400 Corporate Circle, Salem, VA 24153