

# CAUTION

NOTIFICATION
LABEL NOT REVIEWED
PER PRINCIPLE 86-8

### STATEMENT OF PRACTICAL TREATMENT

If in eyes, flush with plenty of water. Get medical attention irritation persists.

#### **ACTIVE INGREDIENT**

Bacillus thuringiensis Berliner subspecies kurstaki

16,000 International units (IU) per mg of product (equivalent to 7.3 billion IU/lb.)......3.2% Inert Ingredients......96.8%

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

May cause eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

#### **ENVIRONMENTAL HAZARDS**

Do not contaminate water when disposing of equipment washwaters.

For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

#### **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 through any type of irrigation system.

Refer to the Directions For Use Booklet attached to this container for further directions.

#### STORAGE AND DISPOSAL:

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

Storage: Store in a cool, dry place. Keep containers tightly closed when not in use. Store in temperatures above freezing and below 90 degrees F.

Pesticide Disposal: Pesticide waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility in accordance with federal and local regulations

Container Disposal: Completely empty bag 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.

#### **HOME GARDEN USE DISPOSAL INSTRUCTIONS**

Pesticide Disposal: Securely wrap original container in several layers of newspaper and discard in trash.

Container Disposal: Do not reuse bag. Discard bag in trash.

NOTICE OF WARRANTY: NOVO NORDISK MAKES NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PURPOSE, OR OTHERWISE, EXPRESS OR IMPLIED, concerning this product or its uses which extend beyond the use of the product under normal conditions in accord with the statements made on this label.

In no case shall the seller be liable for consequential, or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer.

Novo Nordisk holds U.S. registrations for the active ingredient. Biobit is manufactured by Novo Nordisk.

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EPA Registration No. 58998-1 EPA Est. No. 58998-DN-001 MANUFACTURED FOR:
Novo Nordisk
33 Turner Road
Danbury, Connecticut 06813-1907

NET CONTENTS

**Pounds** 

BBWP693(93-3)

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

Do not apply this product through any type of irrigation system.

#### **RE-ENTRY STATEMENT**

Do not enter treated area without protective clothing until sprays have dried.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must include the following information:

Inform workers of area of fields that must not be entered without appropriate protective clothing until sprays have dried. In case of accidental exposure, wash thoroughly with soap and water. If in eyes, flush with plenty of water. Get medical attention if eye irritation persists.

When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written warnings must include the following information:

CAUTION: Area treated with Biobit Wettable Powder on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, wash thoroughly with soap and water. If in eyes, flush with plenty of water. Get medical attention if eye irritation persists.

#### APPLICATION

Biobit may be applied by ground or aerial equipment with quantities of water sufficient to provide thorough coverage of plant parts to be protected. The amount of water needed per acre will depend upon crop size, weather, spray equipment, and local experience.

#### MIXING

Fill spray or mixing tank half full of water. Begin agitation and pour Biobit into water while maintaining continuous agitation. Add other spray material (if any) and balance of water. Agitate as necessary to maintain suspension. Do not allow diluted mixture to remain in the tank for more than 48 hours.

The use of a spreader-sticker is recommended for hard to wet crops such as cole\*, crops or to improve weather-fastness of the spray deposits. Combinations with commonly used spray tank adjuvants are generally not deleterious to Bicbit, if the mix is used promptly. Before mixing in the spray tank, it is advisable to test physical compatibility by mixing all components in a small container in proportionate quantities.

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For smaller spray volumes, mix the proper number of teaspoons of Biobit from the following chart to attain the desired rates:

it the rate is:	Add this amount per gallon of mix
0.5 lb/acre	2 teaspoons
1.0 lb/acre	4 teaspoons
2.0 lb/acre	8 teaspoons

#### **SPRAY VOLUMES**

Aerial Application: Use recommended amount of Biobit in a minimum of 5 gallons of water per acre. Apply early morning or evening when air is calm.

Ground Application: Use recommended amount of Biobit in a minimum of 20 gallons of water per acre.

Ground applications to trees and vines: Apply specific dosage per acre of Biobit in a minimum of 100 gallons of water per acre for dilute applications. Wet foliage thoroughly with spray, but not to the point of excessive runoff. For mist blowers, use recommended amount of Biobit (per acre rate) in a minimum of 20 gallons of water per acre.

#### **GENERAL USE INSTRUCTIONS**

Biobit is a highly selective biological insecticide specific for the control of lepidopterous larvae. Biobit must be ingested by the larvae to be effective. For consistent control, apply at first sign of new<sup>1</sup>, hatched larvae (1st and 2nd instar larvae). Susceptible larvae that ingest Biobit cease feeding within a few hours and die within 2-5 days.

Biobit may be applied up to and on the day of harvest.

For maximum effectiveness the following is recommended:

Monitor fields to detect early infestations.

Apply Biobit when eggs start hatching and larvae are small (early instars) and before significant crop damage occurs. Larvae must be actively feeding to be affected.

Repeat applications every 3 to 14 days to maintain control and protect new plant growth. Factors affecting spray interval include rate of plant growth, weather conditions, and reinfestation. Monitor populations of pests and beneficials to determine proper timing of applications.

Under conditions of heavy pest pressures or when large worms are present use the higher rate, shorten the application interval, and/or improve spray coverage to enhance control. When these conditions are present, a contact insecticide should be used to enhance control.

Thorough coverage is essential for optimum performance. Ground applicators 'equipped with directed drop nozzles can improve coverage.

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## **APPLICATION RATES:**

CROP GROUP				
FORAGE,	FODDER, HAY			
	Crop	Pests	Rate (lbs./acre)	Special Instructions
	Alfalfa (Hay & Seed) and Other Non-grass	Alfalfa Caterpillar Loopers	0.5-2.0	
	Animal Feeds,	Armyworms	1.0-4.0	*
	Grasses Grown For Feed (pasture, ranges, hay or silage)	European Skipper (Essex Skipper)	1.0-2.0	

CROP GROUP			
FRUITS & NUTS			
Crop	Pests	Rate (lbs./acre)	Special Instructions
Pome and Stone Fruit Trees such as:  Apples, Pears, Quince, Apricots, Cherries, Nectarines, Peaches, Plums, Prunes.  Nut Trees such as:  Almonds, Filbert, Chestnuts, Walnuts, Pecans.	Redhumped Caterpillar Tent Caterpillars Omnivorous Leafroller Tortrix Moths Cankerworms Fruittree Leafroller Gypsy Moth Tufted Apple Budmoth Fall Webworm Variegated Leafroller Redbanded Leafroller Redbanded Leafroller Codling Moth Cutworms Filbert Leafroller Oblique Banded Leafroller Filbert Webworm  Citrus Cutworm  Roughskinned Cutworm	1.0-4.0	

CROP GROUP				
FRUITS	& NUTS Cont'd	7		
	Citrus	Orangedog	0.5-2.0	
		Fruittree Leafroller Citrus Cutworm	1.0.4.0	
ĺ		Amorbia	2.0-3.0	**
	Small Fruit and Berries such as: Blackberries, Blueberries, Currants, Raspberries, Strawberries	Gypsy Moth Blueberry Leafroller Loopers Fruittree Leafroller Grape Berry Moth Oblique Banded Leafroller Achema Sphinx Moth (Hornworm)	1.0-2.0	
	Cranberries,	Armyworms	1.0-4.0	*
ļ		Tobacco Budworm	4.0	
	Grapes	Cherry Fruitworm Green Fruitworm	0.5-1.0	
		Grape Leaffolder Grapeleaf Skeletonizers Omnivorous Leafroller Orange Tortrix Saltmarsh Caterpillar	1.0-2.5	

CROP GROUP			
OTHER FRUITS			
Bananas	Banana Skipper	1.0-2.0	
Tropical Fruits	Hornworms Leafrollers Loopers Omnivorous Leafroller	1.0-4.0	
Kiwi	Omnivorous Leafroller	1.0-4 0	. ;
Pineapple	Gummosos-Batrachedra commosae (Hodges) Thecla-Thecla basilides (Geyr)	0.5-1.0	
Melons	(see Vegetable Crops, Cucurbits)		, ,

## CROP GROUPS

## VEGETABLES AND COLE CROPS

Crop	Pests	Rate (lbs./acre)	Special Instructions
Root & Tuber Vegetables, and leaves of Root and Tuber vegetables such as	Imported Cabbayeworm Green Cloverworm	0.5-2.0	
Beets, Carrot,	Hornworms	0.25-2.0	
Horse adish, Radish, Potato Sweet Potato, Turnip and Turnip Greens, Sugarbeets,	Cutworms Loopers Webworms Saltmarsh Caterpillar Omnivorous Leafroller	1.0-2.0	
	Armyworms	1.0-4.0	*
	Diamondback Moth	0.5-2.0	
	European Corn Borer	2.0-3 0	
	Alfalfa Caterpillar	0.25- 0.5	
Bulb Vegetables such as:	Saltmarsh Caterpillar Omnivorous Leafroller Webworms	1.0-2.0	
Garlic, Leeks, Onions,Shallot	Hornworms	0.25-2.0	1
	Imported Cabbageworm Green Cloverworm Loopers	0.5-2.0	
	Cutworms	1.0-2.0	
}	Armyworms	1.0-4.0	*
}	Diamondback Moth	0.5-1.0	
	European Corn Borer	2.0-3.0	
	Heliothis spp	2.0	** Suppression Only

Crop	Pests	Rate (lbs./acre)	Special Instructions
Leafy vegetables, such as:	Imported Cabbageworm Green Cloverworm	0.5-2.0	
Celery,	Hornworms	0.25-2.0	
Lettuce(Head and Leaf), Parsley, Endive,	Cutworms Webworms	1.0-2.0	
Spinach, Kale	Loopers Diamondback Moth	0.5-2.0	
	Saltmarsh Caterpillar Omnivorous Leafroller	1.0-2.0	
	Armyworms	1.0-4.0	*
	European Corn Borer	2.0-3.0	
Legume and foliage of Legume	Loopers	0.5-2.0	
vegetables,	Hornworms	0.25-1.0	
Lentils, Peas, Beans, Soybeans	Podworms Imported Cabbageworm Green Cloverworm Saltmarsh Caterpillar Soybean Loopers Velvetbean Caterpillar	1.0-2.0	
	Armyworms	1.0-4.0	*
	Diamondback Moth	0.5-2.0	
	European Corn Borer	2.0-3.0	
	Cut worm	1.0-3.0	



Crop	Pests	Rate (lbs./acre)	Special Instructions
Fruiting Vegetables such as: Eggplant,	Imported Cabbageworm Diamondback Moth Green Cloverworm	0.5-1.0	
Peppers, Tomatoes	Hornworms	0.25-2.0	
	Tomato Fruitworm(Heliothis) Variegated Cutworm Saltmarsh Caterpillar Loopers	1.0-2.0	
	Armyworms	1.0-4.0	*
	European Corn Borer	2.0-3.0	
Brassica (co	le) Hornworms	0.25.2.0	
vegetables such as:, Broccoli, Brussels sprouts, Cabbage, Cauliflower	Webworms Loopers Cutworms Saltmarsh Caterpillar Omnivorous leafroller	1.0-2.0	
Collards, Kohlrabi,	Diamondback Moth Imported Cabbageworm Green Cloverworm	0.5-2.0	
	Armyworms	1.0-4.0	*
	European Corn Borer	2.0-3.0	
Cucurbit vegetables such as: Cucumbers, Melons, Pumpkins, Squash, Watermelon	Imported Cabbageworm Green Cloverworm Loopers Diamondback Moth Loopers Saltmarsh Caterpillar Melonworm Pickleworm Rindworm complex	0.3-2.0	
	Armyworms	1.0-4.0	*
	European Corn Borer	2.0,-3;/	,
	Hornworms	0.25-1.0	

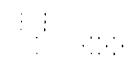
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## OTHER VEGETABLES

Crop	Pests	Rate (lbs./acre)	Special Instructions
Artichokes	Artichoke Plume Moth	1.0-2.5	
	Armyworms	1.0-3.0	*
	Loopers	0.5-2.5	
Asparagus	Armyworms	1.0-4.0	*
	Diamondback Moth Green Cloverworm Imported Cabbageworm	0.5-1.0	
	Loopers	0.5-2.0	
Malanga	Armyworms	1.0-4.0	*
	Saltmarsh Caterpillar	1.0-2.0	
Watercress	Loopers Diamondback Moth	0.5-2.0	
	Armyworms	1.0-4.0	*
	Green Cloverworm Imported Cabbageworm	0.5-1.0	
	Saltmarsh Caterpillar	1.0-2.0	<u>,</u>
	European Corn Borer	2.0-2.5	
Sweet Corn	(see Other Crops, Corn)		

CROP GROUP			
HERBS, SPICES, MINTS			
Such as: Basil,	Loopers	0.5-2.	
Dill, Oregano, Peppermint, Thyme	Diamondback Moth Green Cloverworm Imported Cabbageworm	0.5-1.0	
	Armyworms	1.0-4.5	*
	European Corn Borer	2.0-3:0	

CROP OUP			
OTHER CROPS			
Crop	Pests	Rate (lbs./acre)	Special Instructions
Avocadoes	Loopers	2.0-2.5	
	Orange Tortrix Omnivorous Leafroller Omnivorous Looper Spanworm	1.0-4.0	
	Amorbia	1.0-4.0	** Suppression Only
Rice	Armyworms	1.0-3.0	*
	Loopers Saltmarsh Caterpillar	1.0-2.0	
	Cutworms	1.0-3.0	
	Green Cloverworm, VelvetBean Caterpillar	0.5-1.0	
	Heliothis spp	2.0	* * Suppression Only



Crop	Pests	Rate (lbs./acre)	Special Instructions
Colton (Except	Loopers	1.0-2.0	
CA & AZ)	Armyworms	1.0-4.0	*
	Cotton bollworm Tobacco budworm	0.5-4.0	See Below
	Special Instructions: For Heliothis species. Initial of plants are at pinhead so independent of Heliothis error at first egg lay, which Continue applications on a up to the pyrethroid spray	te application quare cotton gg and larval ever occurs e five day spr	ns when 50% stage counts arlier.
Cotton (CA & AZ)	Armyworms	1.0-4.0	*
AZ)	Cotton Leaf Perforator Cotton Leafworm Saltmarsh Caterpillar	1.0-2.0	
	Loopers	1.0-2.0	
	Cotton Bollworm Tobacco Budworm	1.0-4.0	See Below
	Special Instructions: Repeat as necessary throughout the season to maintain control. If egg laying frequency indicates future moderate to heavy larval populations, time application spray to coincide with the second instar larvae. During periods of high temperatures, larvae will progress through first to third lastars very rapidly and early application timing is necessary for control. When plant cover is dense and larvae are feeding in the lower 2/3 portion of the plant, aerial application of Biobit may not provide adequate control.		
Canola/Rape	Armyworms	1.0-4.0	•
Seed	Diamondback Moth	0.5-1.0	
	Loopers	1.0-2.0	
	Heliothis spp.	1.0-4.0	
Corn such	Armyworms	1.0-4.0	•
Field, Sweet, Popcorn	European Corn Borer (Whorl Stage Only)	1.0-3.0	
	Southwestern Corn Borer	2.0-3.0	Aids in Control

Crop		Pests	Rate (1bs./acre)	Special Instructions
Hops	- <del></del>	Armyworms	1.0-4.0	*
		Loopers	0.5-2.0	
		Omnivorous Leaftier Spotted Cutworm Oblique Banded Leafroller	1.0-2.0	
Jojo	ba	Looper (Anacamptodes spp.)	1.0-2.0	
Pean	uts	Green Cloverworm Loopers Velvetbean Caterpillar Podworms	1.0-2.0	
		Heliothis spp	2.0	* * Suppression Only
I I	simmons, egranate	Fall Webworm Filbert Webworm Omnivorous Leafroller Redhumped Caterpillar Tent Caterpillar	1.0-2.0	
		Citrus Cutworm	1.0-2.5	
Saff	lower	Armyworms	1.0-4.0	*
		Loopers Saltmarsh Caterpillar	1.0-2.0	
Sorg	jhum	Headworm	1.0-2.0	
Soyt	peans	(see Vegetable Crops, Legumes)		
Sunf	lowers	H≥admoth Loopers	1.9-2.0	
Smal	ll Grains	Armyworms	1.0-4.0	•
		Loopers	1.0-2.0	
Tobac	co	Tobacco Hornworm	0.25-1.0	
		Loopers	0.5-2.0	,
		Tobacco Budworm	2.0	Suppression Only

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FLOWER AND OF	RS, R <b>NA</b> I	BEDDING MENTALS	PLANTS,

Crop	Pests	Rate lbs./acre	Special Instructions
Ornamentals, Flowers, Bedding Plants	Azalea Moth Diamondback Moth Ello Moth (Hornworm) Io Moth Loopers Oleander Moth Omnivorous Leafroller Omnivorous Looper Tobacco Budworm	0.5-1.0	*

CROP GROUP	
GREENHOUSE, AND OUTDOOR NURSERY	CROPS

Crop	Pests	Rate (lbs./acre)	Special Instructions
Such as: Flowers, Brassica,	Armyworms, Heliothis spp	1.0-4.0	*
Fruiting Groups, Herbs and Leafy	Loopers	1.0-2.0	

## CROP GROUP

## TURF

Crop	Pests	Rate (lbs./acre)	Special Instructions
Turf	Sod Webworm	2.0-4.0	
	Tropical Sod Webworm	2.0	
	Armyworms	2.0	*

CROP GROUP		1	1 · · ·	
	Crop	Pests	Rate ; ; {lbs./acre}	Special <u>Instructions</u>
	Home Garden Use	crop using the rates, mixi	t may be used for any labeled pest and using the rates, mixing, and general use uctions specified on this label.	

## CROP GROUP

Forests, Shade Trees, Ornamentals, Shrubs, Sugar Maple Trees

	Crop	Pests	Rate (lbs./acre)	Special Instructions
	Forests, Shade Trees, Ornamentals,	Gypsy Moth Spruce Budworm Browntail Moth	1.0-2.5	
Shrubs, Sugar Maple Trees	Tussock Moths Pine Butterfly Bagworm Leafrollers Tortrix Moths Mimosa Webworm Tent Caterpillars Jackpine Budworm Blackheaded Budworm Elm Spanworm Saddled Prominent Saddleback Caterpillars	0.75-2.0		
		Redhumped Caterpillar Spring Cankerworm Fall Cankerworm California Oakworm Fall Webworm	0.5-1.0	

#### **Special Instructions**

- \* Armyworm Control: Biobit may be used to control small armyworms (first and second instar) when populations are light and full coverage sprays are applied. Repeat treatment as necessary. If mature larvae or heavy populations are present, a contact insecticide should be used to enhance control.
- \*\* Suppression Only. Use to aid in control of light to moderate populations of first and second instars in Integrated Pest Management conditions. Repeat treatments at four to five day intervals. The use of additional ovicidal or larvicidal insecticide will aid in control.





July 1, 1993

Mr. Phil Hutton
Product Manager (18)
Insecticide Rodenticide Branch
Registration Division (H7505C)
Office of Pesticide Programs
U.S. Environmental Protection Agency
401 M Street S.W.
Washington, D.C. 20460

Novo Nordisk Bioindustrials, Inc.

33 Turner Road P.O. Box 1907 Danbury, CT 06813-1907

Tel. 203-790-2600 FAX 203-790-2748

RE: Response to PR Notice 93-3

Notification, Biobit Wettable Powder, EPA Registration No.

58998-1

Dear Mr. Hutton:

This Notification is submitted to comply with PR Notice 93-3. No other changes have been made to this label.

Sincerely,

ɗanet M. Overholt Regional Manager

Regulatory Affairs

Plant Protection Division

net M. Overbott from

Enc: EPA Form 8570-1

1 label