

70051-89

07/27/2005

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**ACCEPTED**  
 JUL 27 2005  
 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 70051-89

# Lepinox® WDG

INSECTICIDE

Lepinox® WDG water dispersible granule is a biological insecticide for the control of lepidopteran pests.

**Active Ingredient:**

<i>Bacillus thuringiensis</i> subspecies <i>kurstaki</i> strain EG7826 solids, spores and Lepidopteran active toxins*	40.0%
<b>Other Ingredients:</b>	<b>60.0%</b>
<b>Total</b>	<b>100.0%</b>

\*The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

**KEEP OUT OF REACH OF CHILDREN  
 WARNING / AVISO**

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.)

Manufactured by  
 Certis USA, L.L.C.  
 9145 Guilford Road, Suite 175  
 Columbia, MD 21046



Net Contents:  
 5 U.S. Pound Bag  
 LOT NO: \_\_\_\_\_

EPA Reg. No. 70051-89  
 EPA Est. No. 62171-MS-001

**FIRST AID**

**If in eyes:** Hold eyes 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 further treatment advice.  
 Hot Line Number: 1-800-255-3924

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING:** Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear goggles or faceshield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

**Personal Protective Equipment (PPE):**

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.
- Protective eyewear

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

**User Safety Recommendations:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**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 equipment washwaters.

**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 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.

**Aerial Application**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

**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) and restricted-entry intervals. The requirements in this section only 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 12 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, waterproof gloves, protective eyewear, shoes plus socks.

**Preharvest Interval:** LEPINOX WDG may be applied to the crops listed in the APPLICATION RATE TABLE at any time, up to and on the day of harvest.

**Mode of Action:** After consuming a lethal dose of LEPINOX WDG, larvae will cease to feed, but may remain alive on foliage for several days before disappearing. Immediately after ingestion of LEPINOX WDG, larvae begin to move slowly, become discolored, shrivel and blacken prior to death.

### MIXING INSTRUCTIONS

LEPINOX WDG may be applied with conventional ground, aerial or hand held application equipment with quantities of water sufficient to provide thorough coverage of infested plants. Do not apply this product through any type of irrigation system. To obtain a suitable mixture with water, add enough water to allow maximum agitation. With agitator running, slowly add in the LEPINOX WDG. Continue agitation. Add remainder of water and other spray materials and agitate until mixed. Maintain suspension while loading and spraying. Do not mix more LEPINOX WDG than can be used in a 12-hour period. Rinse and flush spray equipment thoroughly following each use. Do not contaminate water when disposing of equipment washwaters.

In order to make proper decisions on application rates to be used, follow the recommendations in the APPLICATION RATE TABLE and these guidelines:

### APPLICATION INSTRUCTIONS

LEPINOX WDG is a biological insecticide for use against the lepidopteran larvae listed in the APPLICATION RATE TABLE. Larvae must consume deposits of LEPINOX WDG to be affected. Always follow these directions:

- Make applications when larvae are still small (early instars <1/2" in length) and actively feeding on foliage or other plant parts.
- Make applications before noticeable foliar damage occurs.
- Thorough spray coverage is essential for good insect control.
- For ground applications, directed drop nozzles should be used for certain vegetable crops. For orchard applications, a spray volume of 100 gallons per acre and treatment of each orchard row is recommended.
- Do not use screens smaller than 50 mesh.
- For ground applications, use a minimum spray volume of 20 gallons per acre. For aerial applications, use a spray volume of at least 5 gallons per acre. (See cotton and soybeans for special instructions.)
- When insect infestations are heavy, use the higher label rates, shorten the spray interval, and/or use larger total spray volume to improve spray coverage.
- Applications should be repeated at an interval sufficient to maintain control, depending upon plant growth, insect pressure and weather conditions after spraying.
- Local conditions may affect the use of LEPINOX WDG. Consult your State Agricultural Extension Specialist for specific recommendations related to local crop protection problems.
- Spray water/spray tank solutions should not exceed pH 8.0. If necessary, buffer water to near neutral pH.

### HAND-HELD EQUIPMENT

When using hand-held equipment, mix 4 teaspoons per gallon of water or 3 pounds per 100 gallons of spray solution. Spray to wet, but not to runoff.

### TANK MIX

LEPINOX WDG may be tank mixed with contact pesticides. Combinations of LEPINOX WDG with commonly used insecticides, fungicides, or other spray tank adjuvants are generally not deleterious to performance. It is advisable to test physical compatibility by mixing all components in small containers in proportionate quantities prior to mixing in spray tank. This product cannot be mixed with any product containing a label prohibition against such mixing. No label dosage rates should be exceeded. Application must be made in accordance with the more restrictive of label limitation and precautions.

For improved durability of spray deposits, a spreader/sticker approved for use on growing crops may be used for hard-to-wet crops such as cole crops.

## APPLICATION RATE TABLE

I. VEGETABLE AND COLE CROPS		
Crops such as:		Insect Pest
Artichokes	Kale	Alfalfa looper
Arugala	Kohlrabi	Armyworm
Asparagus	Leeks	Artichoke plume moth
Beans	Lentils	Beet armyworm
Beets	Lettuce (Head, Leaf, Romaine)	Cabbage budworm
Bok Choy	Malanga	Cabbage looper
Broccoli	Melons (Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc.)	Celery leaf-tier
Brussels sprouts	Napa	Corn earworm
Cabbage	Okra	Cross-striped cabbageworm
Cardoni	Onions	Diamondback moth
Carrots	Parsley	European corn borer
Cauliflower	Parsnips	Fall Armyworm
Celeriac	Peas	Green cloverworm
Celery	Peppers	Imported cabbageworm
Chick peas	Potatoes	Melonworm
Chicory	Pumpkins	Omnivorous leafroller
Chinese cabbage	Radishes	Pickleworm
Collards	Rutabaga	Rindworm complex
Cucumber	Salsify	Saltmarsh caterpillar
Cucurbits	Shallots	Soybean looper
Dry bulb onions	Soybean foliage	Tobacco budworm
Eggplants	Spinach	Tomato fruitworm
Escarole	Squash	Tomato hornworm
Endive	Sugar Beets	Tomato pinworm
Garlic	Sweet potatoes	Velvetbean caterpillar
Green onions	Swiss Chard	Yellowstriped armyworm
Greens (Beets, China, Dandelion, Mustard, Turnip)	Tomatoes	
Horseradish	Turnips	
<b>Rate/Acre: 1.0-2.0 pounds</b>		

II. HERBS AND SPICES	
Crops such as:	Insect Pest
Basil	Alfalfa looper
Chives	Armyworm
Cilantro	Diamondback moth
Dill	European corn borer
Oregano	Green cloverworm
Peppermint	Imported cabbageworm
Thyme	Loopers
	Saltmarsh caterpillar
<b>Rate/Acre: 1.0-2.0 pounds</b>	

### III. PASTURE AND HAY CROPS

Crops such as:	Insect Pest
Alfalfa (hay & seed)	Alfalfa caterpillar
Pasture (grasses & hay)	Armyworm
Silage	Beet Armyworm*
	European skipper
	Fall Armyworm
	Loopers*
	Webworm
	Yellowstriped armyworm*

**Rate/Acre: 1.0-2.0 pounds**

\* Product should be applied when early instar larvae first appear. If infestation persists, make second application 7-10 days later. Combination of LEPINOX WDG with a contact insecticide is recommended for control of 4<sup>th</sup> and 5<sup>th</sup> instar larvae.

### IV. FRUITS, NUTS AND VINE CROPS

Crops such as:	Insect Pest	
<b>Pome and Stone Fruit Trees:</b>		
Apples	Cankerworm (Spring and Fall)	Oriental fruit moth
Apricots	Cherry fruitworm	Pandemis leafroller
Cherries	Eastern tent caterpillar	Peach twig borer
Nectarines	Fall webworm	Redbanded leafroller
Peaches	Fruittree leafroller	Redhumped caterpillar
Pears	Green fruitworm	Tortrix moth (Orange and Garden)
Plums	Gypsy moth	Tufted apple budmoth
Prunes	Navel orangeworm	Variegated leafroller
Quince	Obliquebanded leafroller	Walnut caterpillar
	Omnivorous leafroller	Western tent caterpillar
<b>Nut Trees:</b>		
Almonds	Citrus cutworm	Omnivorous leafroller
Chestnuts	Filbert leafroller	Pecan nut casebearer
Filberts	Filbert webworm	Peach twig borer
Pecans	Fruittree leafroller	Redhumped caterpillar
Pistachios	Hickory shuckworm	Roughskinned cutworm
Walnuts	Navel orangeworm	Western tent caterpillar
	Obliquebanded leafroller	
<b>Citrus</b>	Amorbia	Omnivorous leafroller
	Citrus cutworm	Orangedog
	Fruittree leafroller	
<b>Small Fruit and Berries:</b>		
Blackberries	Achema sphinx moth	Gypsy moth
Blueberries	Armyworm	Loopers
Boysenberries	Blackheaded fireworm	Obliquebanded leafroller
Cranberries	Blueberry leafroller	Omnivorous looper
Currants	Cranberry girdler	Tobacco budworm
Longanberries	Fruittree leafroller	
Raspberries	Grape berry moth	
Strawberries		

<b>Grapes:</b>	Cherry fruitworm	Omnivorous leafroller
	Grape berry moth	Orange tortrix
	Grape leafroller	Saltmarsh caterpillar
	Grapeleaf skeletonizer	Yellowstriped armyworm
	Green fruitworm	
<b>Tropical and Other Fruit:</b>		
Avocados	Amorbia	Omnivorous leafroller
	Loopers	Omnivorous looper
	Orange tortrix	Spanworm
Bananas	Banana skipper	
Kiwi	Omnivorous leafroller	
Persimmons, Pomegranate	Citrus cutworm	Omnivorous leafroller
	Fall webworm	Redhumped caterpillar
	Filbert webworm	Tent caterpillar
Pineapple	Gummosos-Batrachedra commosae	Thecia-Thecia basilides
Tropical fruits	Hornworms	Loopers
	Leafrollers	Omnivorous leafroller
<b>Rate/Acre: 1.0-2.0 pounds</b>		

<b>V. FIELD CROPS</b>		
<b>Crop such as:</b>	<b>Insect Pest</b>	
Canola/Rape Seed	Armyworm	Imported cabbageworm
Evening Primrose	Diamondback moth	Loopers
Meadow foam		
Corn	Armyworm	Fall armyworm
(Field, Sweet, Popcorn, Seed)	European corn borer	Southwestern corn borer
Cotton*	Beet armyworm	Saltmarsh caterpillar
	Cabbage looper	Soybean looper
	Bollworm	Tobacco budworm
	Cotton leaf perforator	Yellowstriped armyworm
	Fall armyworm	
Hops	Armyworm	Omnivorous leaftier
	Loopers	Spotted cutworm
	Oblique banded leafroller	
Jojoba	Looper ( <i>Anacamptodes</i> spp.)	

Peanuts	Fall armyworm	Podworm
	Green cloverworm	Velvetbean caterpillar
	Loopers	
Rice	Armyworm	Saltmarsh caterpillar
	Green cloverworm	Velvetbean caterpillar
	Loopers	
Safflower	Armyworm	Saltmarsh caterpillar
	Loopers	
Small Grains (Barley, Oats, Rye, Wheat, etc.)	Armyworm	
	Loopers	
Sorghum	European corn borer	Saltmarsh caterpillar
	Fall armyworm	Velvetbean caterpillar
Soybeans	Green cloverworm	Velvetbean caterpillar
	Soybean looper	
Sunflowers	Banded sunflower moth	Loopers
	Beet armyworm	Sunflower moth
	Headmoth	
Tobacco	Tobacco budworm	
	Tobacco hornworm	
	Loopers	

**Rate/Acre: 1.0-2.0 pounds**

\*Use of Lepinox WDG in integrated pest management programs:

- Lepinox WDG can be used alone to control light to moderate populations of newly hatched worms at the rates specified above. Repeat treatments at four to five day intervals or as long as necessary until results are acceptable. A banded application can be applied at 0.5 lb/acre.
- For control of bollworm and tobacco budworm, Lepinox WDG can be mixed with conventional chemicals, such as carbamates, organophosphates, pyrethroid, or spinosads, in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. The product cannot be mixed with any product containing a label prohibition against such mixing.
- Treat only 1<sup>st</sup> and 2<sup>nd</sup> instar larvae ¼" or less in length.
- For ground applications, use a minimum of 5 gallons of water per acre. For aerial applications, use a minimum of 3 gallons of water per acre.
- Short residual contact action materials may be tank mixed with Lepinox WDG to control secondary pests such as boll weevil, aphid, and lygus bugs.
- Under low level infestations (less than 5% insect or egg infestation per acre), Lepinox WDG can be used at 0.25 pounds per acre alone or in combination with foliar fertilizers or other approved applications.

\*\*For ground applications, use a minimum of 5 gallons of water per acre.

For aerial applications, use a minimum of 3 gallons of water per acre.

VI. COMMERCIAL FLOWERS AND ORNAMENTAL PLANTS		
Crop such as:	Insect Pest	
Bedding plants	Armyworm	Loopers
Flowers (Greenhouse and Field)	Azalea moth	Oleander moth
Greenhouse Ornamentals	Beet armyworm	Omnivorous leafroller
Greenhouse Vegetables	Diamondback moth	Omnivorous looper
Container Stock	Ello moth (hornworm)	Tobacco budworm
	Florida fern caterpillar	
	lo moth	
<b>Rate/Acre: 1.0-2.0 pounds</b>		

VII. FOREST, SHADE TREE AND NURSERY STOCK		
Crops such as:	Insect Pest	
Forest	Bagworm	Pine butterfly
Shade trees	Blackheaded budworm	Redhumped caterpillar
Nursery trees	Browntail moth	Saddleback caterpillar
	California oakworm	Saddle prominent caterpillar
	Douglas fir tussock moth	Spring and Fall cankerworm
	Elm spanworm	Spruce budworm
	Fall webworm	Tent caterpillar
	Fruittree leafroller	Tortrix
	Greenstriped mapleworm	Western tussock moth
	Gypsy moth	
	Jack pine budworm	
	Mimosa webworm	
<b>Rate/Acre: 1.0-2.0 pounds</b>		

VIII. TURF		
Crop such as:	Insect Pest	
Turf	Armyworms	Sod webworm
	Fall Armyworm	Tropical sod webworm
<b>Rate/Acre: 1.0-2.0 pounds</b>		

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place inaccessible to children.

**Pesticide Disposal:** Do not contaminate water when disposing of equipment washwaters. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**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.

#### WARRANTY

Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing



factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

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U.S. Patent No. 5080897, 5441884, 5650308, 5776447, 5843744

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