

Lepinox® WDG

INSECTICIDE

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

Active Ingredient:

Bacillus thuringiensis subspecies *kurstaki* strain EG7826 solids, spores, and Lepidopteran active toxins40.00%

Inert Ingredients:60.00%

TOTAL100.00%

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

Net Contents: 5 Pounds

EPA REG. No. 70051-89
EPA EST No. 42761-MS-1

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

KEEP OUT OF REACH OF CHILDREN WARNING

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 treatment advice.

CERTIS

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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 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.

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.

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.

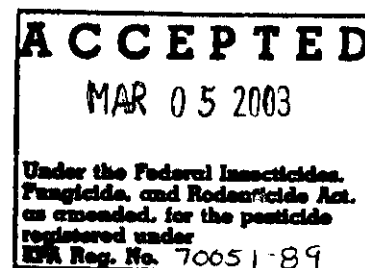
Container Disposal: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to the uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

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

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 bioinsecticide 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 rate should be exceeded. Application must be made in accordance with the more restrictive of label limitations 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 (Fresh and Processed)

Crops such as:	Insect Pest
Artichokes	Alfalfa looper
Arugala	Armyworm
Asparagus	Artichoke plume moth
Beans	Beet armyworm
Beets	Cabbage budworm
Bok Choy	Cabbage looper
Broccoli	Celery leaf-tier
Brussels sprouts	Corn earworm
Cabbage	Cross-striped cabbageworm
Cardoni	Diamondback moth
Carrots	European corn borer
Cauliflower	Fall armyworm
Celeriac	Green cloverworm
Celery	Imported cabbageworm
Chick peas	Melonworm
Chicory	Omnivorous leafroller
Chinese cabbage	Pickleworm
Collards	Rindworm complex
Cucumber	Saltmarsh caterpillar
Cucurbits	Soybean looper
Dry bulb onions	Tobacco budworm
Eggplants	Tomato fruitworm
Escarole	Tomato hornworm
Endive	Tomato pinworm
Garlic	Velvetbean caterpillar
Green onions	Yellowstriped armyworm
Greens (Beets, China, Dandelion, Mustard, Turnip)	
Horseradish	
Kale	
Kohlrabi	
Leeks	
Lentils	
Lettuce (Head, Leaf, Romaine)	
Malanga	
Melons (Cantaloupe, Crenshaw, Honeydew, Muskmelon, Watermelon, etc.)	

Rate/Acre: 1.0 - 2.0 pounds

II. HERBS & SPICES

Crops such as:	Insect Pest
Basil Chives Cilantro Dill Oregano Peppermint Thyme	Alfalfa looper Armyworm Diamondback moth European corn borer Green cloverworm Imported cabbageworm Loopers Saltmarsh caterpillar

Rate/Acre: 1.0 - 2.0 pounds

III. PASTURE AND HAY CROPS

Crops such as:	Insect Pest
Alfalfa (hay & seed) Pasture (grasses & hay) Silage	Alfalfa caterpillar Armyworm 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 4th and 5th instar larvae.

IV. FRUITS, NUTS AND VINE CROPS

Crops such as:	Insect Pest
Pome and Stone Fruit Trees: Apples Apricots Cherries Nectarines Peaches Pears Plums Prunes Quince	Cankerworm (Spring & Fall) Cherry fruitworm Eastern tent caterpillar Fall webworm Fruittree leafroller Green fruitworm Gypsy moth Navel orangeworm Obliquebanded leafroller Omnivorous leafroller Oriental fruit moth Pandemis leafroller Peach twig borer Redbanded leafroller Redhumped caterpillar Tortrix moth (Orange & Garden) Tufted apple budmoth Variegated leafroller Walnut caterpillar Western tent caterpillar
Nut Trees: Almond Chestnuts Filberts Pecans Pistachios Walnuts	Citrus cutworm Filbert leafroller Filbert webworm Fruittree leafroller Hickory shuckworm Navel orangeworm Obliquebanded leafroller Omnivorous leafroller Pecan nut casebearer Peach twig borer Redhumped caterpillar Roughskinned cutworm Western tent caterpillar

IV. FRUITS, NUTS AND VINE CROPS, continued

Crops such as:	Insect Pest
Citrus	Amorbia Citrus cutworm Fruittree leafroller Omnivorous leafroller Orangedog
Small Fruit and Berries: Blackberries Blueberries Boysenberries Cranberries Currants Loganberries Raspberries Strawberries	Achema sphinx moth Armyworm Blackheaded fireworm Blueberry leafroller Cranberry girdler Fruittree leafroller Grape berry moth Gypsy moth Loopers Obliquebanded leafroller Omnivorous looper Tobacco budworm
Grapes	Cherry fruitworm Grape berry moth Grape leafroller Grapeleaf skeletonizer Green fruitworm Omnivorous leafroller Orange tortrix Saltmarsh caterpillar Yellowstriped armyworm
Tropical and Other Fruit: Avocados	Amorbia Loopers Orange tortrix Omnivorous leafroller Omnivorous looper Spanworm
Bananas	Banana skipper
Kiwi	Omnivorous Leafroller
Persimmons Pomegranate	Citrus cutworm Fall webworm Filbert webworm Omnivorous leafroller Redhumped caterpillar Tent caterpillar
Pineapple	Gummosos-Batrachedra commosae Thecla-thecia basilides
Tropical fruits	Hornworms Leafrollers Loopers Omnivorous leafroller

Rate/Acre: 1.0 - 2.0 pounds

V. FIELD CROPS

Crops such as:	Insect Pest
Canola/Rape Seed Evening Primrose Meadow Foam	Armyworm Diamondback moth Imported cabbageworm Loopers
Corn (Field, Sweet, Popcorn, Seed)	Armyworm European corn borer Fall armyworm Southwestern corn borer
Cotton*	Beet armyworm Cabbage looper Bollworm Cotton leaf perforator Fall armyworm Saltmarsh caterpillar Soybean looper Tobacco budworm Yellowstriped armyworm
Hops	Armyworm Loopers Obliquebanded leafroller Omnivorous leaftier Spotted cutworm
Jojoba	Looper (<i>Anacamptodes sp.</i>)
Peanuts	Fall armyworm Green cloverworm Loopers Podworm Velvetbean caterpillar
Rice	Armyworm Green cloverworm Loopers Saltmarsh caterpillar Velvetbean caterpillar
Safflower	Armyworm Loopers Saltmarsh caterpillar
Small grains (Barley, Oats Rye, Wheat, etc.)	Armyworm Loopers
Sorghum	European corn borer Fall armyworm Saltmarsh caterpillar Velvetbean caterpillar
Soybeans	Green cloverworm Soybean Looper Velvetbean caterpillar
Sunflowers	Banded sunflower moth Beet armyworm Headmoth Loopers Sunflower Moth
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 1st and 2nd instar larvae 1/4" 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	Azalea moth	Oleander moth
(Greenhouse and Field)	Beet armyworm	Omnivorous
Greenhouse ornamentals	Diamondback moth	leafroller
Greenhouse vegetables	Ello moth (hornworm)	Omnivorous looper
Container stock	Florida fern caterpillar	Tobacco budworm
	lo moth	

Rates/Acre: 1.0 - 2.0 pounds

VII. FOREST, SHADE TREES, AND NURSERY STOCK

Crops such as:	Insect Pest
Forest Trees	Bagworm
Shade trees	Blackheaded budworm
Nursery trees	Browntail moth
	California oakworm
	Douglas fir tussock moth
	Elm spanworm
	Fall webworm
	Fruittree leafroller
	Greenstriped mapleworm
	Gypsy moth
	Jack pine budworm
	Mimosa webworm
	Pine butterfly
	Redhumped caterpillar
	Saddleback caterpillar
	Saddle prominent caterpillar
	Spring & Fall Cankerworm
	Spruce budworm
	Tent caterpillar
	Tortrix
	Western tussock moth

Rate/Acre: 1.0 - 2.0 pounds

VIII. TURF

Crop such as:	Insect Pest	
Turf	Armyworm	Sod webworm
	Fall armyworm	Tropical sod webworm

Rate/Acre: 1.0 - 2.0 pounds

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.**

Lepinox is a registered trademark of Certis USA
 U.S. Patent No. 5080897, 5441884, 5650308, 5776447, 5843744
 Vers. 10/01 • Copyright ©2001 Certis USA