

# LEPINOX<sup>®</sup> WDG INSECTICIDE

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

**Active Ingredient:**

*Bacillus thuringiensis* strain EG7826 solids, spores and Lepidopteran toxins . . . . . 40.0%

**Inert Ingredients** . . . . . 60.0%

**TOTAL** . . . . . 100.0%

5.4 oz. active ingredient per pound.  
Percent active ingredient should not be used to adjust use rates beyond those specified in the DIRECTIONS FOR USE section.

## 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
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### 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 face shield. 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
  - Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, and P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.
  - Protective eyewear

EPA REG. No. 55638-37  
EPA EST. No. 42761-MS-1  
(Subscript refers to last 2 digits of lot number on container.)  
Net Contents. 5 U.S. Pound Bag

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 inter-tidal areas below the mean high water mark.

Do not contaminate water when disposing of equipment wash waters.

### 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.

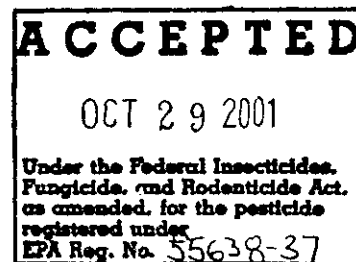
**Container Disposal:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

### 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.



### Ecogen Inc.

2000 West Cabot Blvd., #170  
Larghorne, PA 19047-1811  
215/757-1590 or 800/220-2135

## 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 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 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

Crop such as:	Insect Pest
Artichokes	Melons
Arugala	(cantaloupe,
Asparagus	Crenshaw,
Beans	honeydew,
Beets	muskmelon,
Bok Choy	watermelon,
Broccoli	etc.)
Brussel sprouts	Napa
Cabbage	Okra
Cardoni	Onions
Carrots	Parsely
Cauliflower	Parsnips
Celeriac	Peas
Celery	Peppers
Chick peas	Potatoes
Chicory	Pumpkins
Chinese cabbage	Radishes
Collards	Rutabaga
Cucumber	Salsify
Cucurbits	Shallots
Dry onion bulbs	Soybean foliage
Eggplant	Spinach
Escarole	Squash
Endive	Sugar beets
Garlic	Sweet potatoes
Green onions	Swiss chard
Greens (Beets, China, Tomatoes	Turnips
Dandelion, Mustard,	
Turnip)	
Horseradish	
Kale	
Kohlrabi	
Laure	
Lentils	
Lettuce (Head, Leaf, Romaine)	
Malanga	

Rate/Acre: 1.0-2.0 lbs.

## II. HERBS AND SPICES

Crop 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

Rate/Acre: 1.0 - 2.0 pounds

## III. PASTURE AND HAY CROPS

Crop such as:	Insect Pest
Alfalfa (hay & seed)	Alfalfa caterpillar
Pasture (grasses & hay)	Armyworm
Slage	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 a 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, NUT & VINE CROPS

Crops such as:	Insect Pest
<b>Pome and Stone Fruit Trees:</b>	Cankerworm (Spring and Fall)
Apples	Cherry fruitworm
Apricots	Eastern tent caterpillar
Cherries	Fall webworm
Nectarines	Fruitree leafroller
Peaches	Greenfruitworm
Pears	Gypsy moth
Plums	Navel orangeworm
Prunes	Obliquebanded leafroller
Quince	Omnivorous leafroller
	Oriental fruit moth
	Pandemis leafroller
	Peach twig borer
	Redbanded leafroller
	Redhumped caterpillar
	Tortrix moth (Orange and Garden)
	Tufted apple budmoth
	Variagated leafroller
	Walnut caterpillar
	Western tent caterpillar
<b>Nut Trees:</b>	Citrus cutworm
Almonds	Filbert leafroller
Chestnuts	Filbert webworm
Filberts	Fruitree leafroller
Pecans	Hickory shuckworm
Pistachios	Navel orangeworm
Walnuts	Oblique banded leafroller
	Omnivorous leafroller
	Pecan nut casebearer
	Peach twig borer
	Redhumped caterpillar
	Roughskinned cutworm
	Western tent caterpillar
<b>Citrus</b>	Amorbia
	Citrus cutworm
	Fruitree leafroller
	Omnivorous leafroller
	Orangedog
<b>Small Fruit and Berries:</b>	Achema sphinx moth
Blackberries	Armyworms
Blueberries	Blackheaded fireworm
Boysenberries	Blueberry leafroller
Cranberries	Cranberry girdler
Currents	Fruitree leafroller
Loganberries	Grape berry moth
Raspberries	Gypsy moth
Strawberries	Loopers
	Obliquebanded leafroller
	Omnivorous leafroller
	Tobacco budworm
<b>Grapes</b>	Grape berry moth
	Cherry fruitworm
	Grape leafroller
	Grapeleaf skeletonizer
	Green fruitworm
	Omnivorous leafroller
	Orange tortrix
	Saltmarsh caterpillar
	Yellowstriped armyworm
<b>Tropical and other Fruit:</b>	Amorbia
Avocados	Loopers
	Orange tortrix
	Omnivorous leafroller
	Omnivorous looper
	Spanworm
<b>Bananas</b>	Banana skipper
<b>Kivi</b>	Omnivorous leafroller
<b>Persimmons</b>	Citrus cutworm
<b>Pomegranate</b>	Fall webworm
	Filbert webworm
	Omnivorous leafroller

	Redhumped caterpillar Tent caterpillar
Pineapple	Gummosis-Batrachedra Commosae Thecia-Thecia basilides
Tropical fruits	Hornworms Leafrollers Loopers Omnivorous leafroller

Rate/Acre: 1.0 - 2.0 Pounds

**V. FIELD CROPS**

Crop 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 leafroller Spotted cutworm
Jojoba	Looper ( <i>Anacamptodes</i> sp.)
Peanuts	Fall armyworm Green cloverworm Loopers Podworms 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 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. This 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 1/2" 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 infestation (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 & ORNAMENTAL PLANTS**

Crop such as:	Insect Pest
Bedding plants Flowers (Greenhouse and Field) Greenhouse ornamentals Greenhouse vegetables Container stock	Armyworm Azalea moth Beet armyworm Diamondback moth Ello moth (hornworm) Florida fern caterpillar lo moth Loopers Cleander moth Omnivorous leafroller Omnivorous looper Tobacco budworm

Rate/Acre: 1.0 - 2.0 pounds

**VII. FOREST, SHADE TREES & NURSERY STOCK**

Crop such as:	Insect Pest
Forest Shade trees Nursery trees	Bagworm Blackheaded budworm Browntail moth California oakworm Douglas fir tussock moth Eim spanworm Fall webworm Fruitree sawfly Greenstriped mapleworm Gypsy moth Jack pine budworm Mimosa webworm Pine butterfly Redhumped caterpillar Saddleback caterpillar Saddle prominent caterpillar Spring and 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 Fall armyworm Sod webworm Tropical sod webworm

Rate/Acre: 1.0 - 2.0 pounds

### WARRANTY AND CONDITIONS OF SALE

Ecogen warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used in accordance with the directions on this label under normal conditions of use.

ECOGEN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

If this product is defective, Buyer's exclusive remedy shall be the replacement of the product, or if replacement is impracticable, refund of the purchase price. In no case will Ecogen be liable for incidental, consequential or special damages resulting from the handling, storage or use of this product.

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