

ACCEPTED
 NOV 21 2002
 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 70051-86

Crymax®

BIOINSECTICIDE

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

Active Ingredient:

<i>Bacillus thuringiensis</i> strain EG7841 solids, spores and Lepidopteran toxins.....	40.00%
Inert Ingredients:.....	60.00%
Total	100.00%

6.4 oz. active ingredient per pound.

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

Net Contents:
5 U.S. Pound Bag

EPA Reg. No. 70051-86
EPA Est. No. 42761-MS-001

KEEP OUT OF REACH OF CHILDREN CAUTION

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

CERTIS

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.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

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, and P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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 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-water-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 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, 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: CRYMAX 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 CRYMAX, larvae will cease to feed, but may remain alive on foliage for several days before disappearing. Immediately after ingestion of Crymax WDG larvae begin to move slowly, become discolored, shrivel and blacken prior to death.

MIXING INSTRUCTIONS

CRYMAX 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 the CRYMAX. Continue agitation. Add remainder of water and other spray materials and agitate until mixed. Maintain suspension while loading and spraying. Do not mix more CRYMAX than can be used in a 24-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

CRYMAX is a bioinsecticide for use against the lepidopteran larvae listed in the APPLICATION RATE TABLE. Larvae must consume deposits of CRYMAX 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 CRYMAX. 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 2 teaspoons per gallon of water or 1-1/2 pounds per 100 gallons of spray solution. Spray to wet, but not to runoff.

TANK MIX

CRYMAX may be tank mixed with contact pesticides. Combinations of CRYMAX 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 a small container 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 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 & Cole CROPS

Crop such as:	Insect Pest	
Artichokes	Lentils	Alfalfa looper
Arugala	Lettuce (Head,	Armyworm*
Asparagus	Leaf, Romaine)	Artichoke plume moth
Beans	Malanga	Beet armyworm*
Beets	Melons	Cabbage budworm
Bok Choy	(Cantaloupe,	Cabbage looper
Broccoli	Crenshaw,	Celery leaf-tier
Brussels sprouts	Honeydew,	Corn earworm
Cabbage	Muskmelon,	Cross-striped
Cardoni	Watermelon,	cabbageworm
Carrots	etc.)	Diamondback moth**
Cauliflower	Napa	European corn borer
Celeriac	Okra	Green cloverworm
Celery	Onions	Imported cabbageworm
Chick peas	Parsley	Melonworm
Chicory	Parsnips	Omnivorous leafroller
	Peas	

I. Vegetable & Cole CROPS, *continued*

Crop such as:	Insect Pest	
Chinese cabbage	Leeks	Pickleworm
Collards	Peppers	Rindworm complex
Cucumber	Potatoes	Saltmarsh caterpillar
Cucurbits	Pumpkins	Soybean looper
Dry bulb onions	Radishes	Tobacco budworm
Eggplant	Rutabaga	Tomato fruitworm
Escarole	Salsify	Tomato hornworm
Endive	Shallots	Tomato pinworm
Garlic	Soybean foliage	Velvetbean caterpillar
Green onions	Spinach	Yellowstriped armyworm*
Greens (Beets, China, Dandelion, Mustard, Turnip)	Squash	
Horseradish	Sugar beets	
Kale	Sweet potatoes	
Kohlrabi	Swiss chard	
	Tomatoes	
	Turnips	

Rate/Acre: 0.5 - 2.0 pounds

* Recommended rate is 1.0 - 1.5 pounds/acre unless tank-mixed with contact insecticide.

** CRYMAX will control BT resistant and susceptible diamondback moth.

II. HERBS & SPICES

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

Rate/Acre: 0.5 - 2.0 pounds

III. PASTURE & HAY CROPS

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

Rate/Acre: 0.5 - 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 CRYMAX with contact insecticide is recommended for control of 4th and 5th instar larvae.

IV. FRUIT, NUT & VINE CROPS

Crop such as:	Insect Pest	
Pome and Stone	Cankerworm (Spring & Fall)	Pandemis leafroller
Fruit Trees:	Cherry fruitworm	Peach twig borer
Apples	Eastern tent caterpillar	Redbanded leafroller
Apricots	Fall webworm	Redhumped caterpillar
Cherries	Fruitree leafroller	Tortrix moth (Orange and Garden)
Nectarines	Green fruitworm	Tufted apple budmoth
Peaches	Gypsy moth	Variogated leafroller
Pears	Navel orangeworm	Walnut caterpillar
Plums	Obliquebanded leafroller	Western tent caterpillar
Prunes	Omnivorous leafroller	
Quince	Oriental fruit moth	

IV. FRUIT, NUT & VINE CROPS, *continued*

Crop such as:	Insect Pest	
Nut Trees:	Citrus cutworm	Omnivorous leafroller
Almonds	Filbert leafroller	Pecan nut casebearer
Chestnuts	Filbert webworm	Peach twig borer
Filberts	Fruitree leafroller	Redhumped caterpillar
Pecans	Hickory shuckworm	Roughskinned caterpillar
Pistachios	Navel orangeworm	Western tent caterpillar
Walnuts	Obliquebanded leafroller	
Citrus:	Amorbia	Omnivorous leafroller
	Citrus cutworm	Orangedog
	Fruitree leafroller	
Small Fruit and Berries:	Achema sphinx moth	Omnivorous looper
Blackberries	Armyworms	Tobacco budworm
Blueberries	Blackheaded fireworm	
Boysenberries	Blueberry leafroller	
Cranberries	Cranberry girdler	
Currants	Fruitree leafroller	
Longanberries	Grape berry moth	
Raspberries	Gypsy moth	
Strawberries	Loopers	
	Obliquebanded leafroller	
Grapes:	Grape berry moth	Omnivorous leafroller
	Cherry fruitworm	Orange tortrix
	Grape leafroller	Saltmarsh caterpillar
	Grapeleaf skeletonizer	Yellowstriped armyworm
	Green fruitworm	
Tropical and Other Fruit:	Amorbia	Omnivorous leafroller
Avocados	Loopers	Omnivorous looper
	Orange tortrix	Spanworm
Bananas	Banana skipper	
Kiwi	Omnivorous leafroller	
Persimmons	Citrus cutworm	Omnivorous leafroller
Pomegranate	Fall webworm	Redhumped caterpillar
	Filbert webworm	Tent caterpillar
Pineapple	Gummosos-Batrachedra commosae	
	Thecla-Thecla basilides	
Tropical fruits	Hornworms	Loopers
	Leafrollers	Omnivorous leafroller
Rate/Acre: 0.5 - 2.0 pounds		
V. FIELD CROPS		
Crop such as:	Insect Pest	
Canola/ Rape Seed	Armyworm	
Evening Primrose	Diamondback moth	
Meadow foam	Imported cabbageworm	
	Loopers	
Corn (Field, Sweet, Popcorn, Seed)	Armyworm	
	European corn borer	
	Southwestern corn borer	
Cotton*	Beet armyworm**	Saltmarsh caterpillar
	Bollworm**	Soybean looper
	Cabbage looper	Tobacco budworm
	Cotton leaf perforator	Yellowstriped armyworm**
Hops	Armyworm	Omnivorous leafroller
	Loopers	Spotted cutworm
	Obliquebanded leafroller	
Joboba	Looper (<i>Anacamptodes sp.</i>)	
Peanuts	Green cloverworm	Podworm
	Loopers	Velvetbean caterpillar

V. FIELD CROPS, *continued*

Crop such as:	Insect Pest	
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 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: 0.5 - 2.0 pounds

- * Use CRYMAX at 0.25 lb/acre to control light to moderate populations of newly hatched tobacco budworm and bollworm in integrated pest management programs. Repeat treatments at four to five day intervals or as long as necessary until results are acceptable. Ovicides or synthetic pyrethroids can be combined with CRYMAX 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.
- ** Combination of CRYMAX with a contact insecticide is recommended for infestations that include 4th and 5th instar larvae.

VI. COMMERCIAL FLOWERS & ORNAMENTAL PLANTS

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

Rate/Acre: 1.0 - 2.0 pounds

VII. FOREST, SHADE TREE & NURSERY STOCK

Crop 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	
	Elm spanworm	Spring and Fall cankerworm
	Fall webworm	
	Fruittree leafroller	Spruce budworm
	Greenstriped mapleworm	Tent caterpillar
	Gypsy moth	Tortix
	Jack pine budworm	Western tussock moth
	Mimosa webworm	

Rate/Acre: 0.5 - 2.0 pounds

VIII. TURF

Crop such as:	Insect Pest
Turf	Armyworm Sod webworm Tropical sod webworm
Rate/Acre: 0.5 - 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.

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