

275-37

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**dipel 2X** 01-0000/R1-000-7-80  
WORM KILLER

**WETTABLE POWDER  
BIOLOGICAL INSECTICIDE**

**Active Ingredient:**  
*Bacillus thuringiensis*, Berliner, 32,000 International Units of Potency per mg. (14.52 billion International Units per pound).

**KEEP OUT OF REACH  
OF CHILDREN  
CAUTION**

E.P.A. Registration No. 275-37  
E.P.A. Est. No. 33762-1A-1

**BENEFICIAL INSECTS**

Honey bees foraging treated areas are not harmed by DIPEL 2X use.

DIPEL 2X does not interrupt the activities of beneficial and predacious arthropods in pest management programs.

**DIRECTIONS FOR USE**

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

**STORAGE AND DISPOSAL**

**STORAGE:** Reclose containers of unused DIPEL 2X. Store in a dry place.

**DISPOSAL:** Do not reuse container. Perforate or crush and discard empty container according to local trash disposal regulations.

**Days to harvest:** There are no restrictions on applying DIPEL 2X up to the time of harvest.

**Sites:** DIPEL 2X may be used for any labeled pest in both field and greenhouse uses.

*Bacillus thuringiensis* is exempt from the requirement of a tolerance on all raw agricultural commodities when applied to growing crops or after harvest in accordance with good agricultural practices.

For Smaller Spray Volumes:	Use This Amount
If Rate is	Per Gallon
1/2 lb./acre or 100 gals.	1 tsp.
1 lb./acre or 100 gals.	2 tsps.
2 lb./acre or 100 gals.	4 tsps.

**DIRECTIONS FOR USE**

DIPEL 2X is a highly selective insecticide for use against listed caterpillars (larvae) of lepidopterous insects. Close scouting and early attention to infestations is highly recommended. Larvae must eat deposits of DIPEL 2X to be affected. Always follow these directions:

- Treat when larvae are young (early instars) before the crop is extensively damaged.

- Larvae must be actively feeding on treated, exposed plant parts.
- Thorough spray coverage is needed to provide a uniform deposit of DIPEL 2X at the site of larval feeding. For some crops directed drop nozzles by ground machine are required.
- Under heavy pest population pressure, use the higher label rates, shorten the spray interval, and/or raise gallonage to improve spray coverage.
- Repeat applications at an interval sufficient to maintain control, usually 3 to 14 days depending on plant growth rate, moth activity, rainfall after treating, and other factors. If attempting to control a pest with a single spray, make the treatment when egg hatch is essentially complete, but before extensive crop damage occurs.
- A spreader-sticker which has been approved for use on growing and harvested crops should be added for hard-to-wet crops such as cole crops, or to improve weather-fastness of the spray deposits.

After eating a lethal dose of DIPEL 2X, larvae stop feeding within the hour, and will die within several days. Dying larvae move slowly, discolor, then shrivel, blacken and die.

DIPEL 2X may be applied in conventional ground or aerial equipment with quantities of water sufficient to provide thorough coverage of infested plant parts. The amount of water needed per acre will depend on crop size, weather, spray equipment, and local experience. Unless otherwise indicated, use at least 2 gallons of water by air, except in the far west, 5 to 10 gallons is the usual minimum. Add water to the spray or mixing tank at the level that provides maximum agitation. With the agitator running, slowly sprinkle in the DIPEL 2X. Continue agitation. Then add other spray materials (if any). Add the balance of the water and agitate until mixed. Maintain the suspension while loading and spraying. Do not mix more DIPEL 2X than can be used in a 12-hour period.

**APPLICATION RATE**

Crop	Pest	Pounds/Acre	
Cole Crops and Vegetables including Leaty, Root, Stalk, and Seed and Pod Types (Peas, Beans, Lentils, etc., dry or succulent), Potatoes, Cucurbits	Loopers	1/4 to 1/2	
	Hornworms	1/2 to 1	
	Imported Cabbageworm	1/4 to 1/2	
	Diamondback Moth	1/4 to 1/2	
	Green Cloverworm	1/4 to 1/2	
	Webworm	1/4 to 1/2	
	Armyworms*	1/2 to 1	
	Tomatoes, Peppers, Eggplant	Loopers	1/4 to 1/2
		Hornworms	1/2 to 1
		Tomato Fruitworm**	1/2
	Variegated Cutworm	1/2	
	Salt Marsh Caterpillars	1/4 to 1/2	
	Armyworms**	1/2 to 1	

\*DIPEL 2X may be used to suppress small armyworms (1st and 2nd instar) when populations are light and full coverage ground sprays are applied.

Tomatoes, Peppers, Eggplant	Loopers	1/4 to 1/2
	Hornworms	1/2 to 1
	Tomato Fruitworm**	1/2
	Variegated Cutworm	1/2
	Salt Marsh Caterpillars	1/4 to 1/2
	Armyworms**	1/2 to 1

\*\*Apply weekly in a preventive program.  
\*\*DIPEL 2X may be used to suppress small worms (1st and 2nd instar) when populations are light and full coverage ground sprays are applied.

Crop	Pest	Pounds/Acre
Cucurbits: Melons, Squash, Cucumbers, etc.	Ringworm Complex*	1/4 to 1/2
	Melonworms	1/2 to 1
*Apply weekly in a preventive program.		
Tobacco	Tobacco Budworm	1/4 to 1/2
	Hornworms	1/4 to 1/2
	Loopers	1/4 to 1/2
DIPEL 2X may be tank mixed with sucker control products at recommended rates. Follow the application directions on the sucker control labels. Observe all label precautions for all products used.		
Safflower, Sugar beets, Mints	Loopers	1/4 to 1/2
	Salt Marsh Caterpillar	1/4 to 1/2
Soybeans, Sunflowers, Peanuts	Loopers	1/4 to 1/2
	Green Cloverworm	1/4 to 1/2
	Vetivelbean Caterpillar	1/4 to 1/2
	Podworm*	1/4 to 1/2
*DIPEL 2X suppresses podworms under pest management conditions.		
Alfalfa, Pastures, Hay, Small Grains and Forage Crops	Loopers	1/4 to 1/2
	Alfalfa Caterpillar	1/4 to 1/2
	European Skipper (Essex Skipper)	1/4 to 1/2
Rangeland	Range Caterpillar	1/2 to 1
Use a minimum of 1/2 to 1 gallon water per acre.		
Cotton	Tobacco Budworm*	1/4 to 1/2
	Cotton Bollworm*	1/4 to 1/2
	Loopers**	1/4 to 1/2

\*Use to suppress light to moderate populations of newly hatched worms in pest management conditions. Use under close scouting when beneficial insects are active or building. Repeat treatments at 4 to 5-day intervals as long as necessary and results are acceptable. If 15% or more terminals have eggs, add 1/4 lb. AI chlordimeform (Galecron® or Fundal®) per acre to 1/4 lb. DIPEL 2X. Increase chlordimeform to 1/2 lb. AI if needed.

Once beneficial insects are no longer a factor, DIPEL 2X (at 1/4 to 1/2 lb./acre) may be tank mixed with methomyl (Lannate® or Nudrin®) at .225 to .675 lbs AI per acre to control light to moderate infestations of early instar larvae. Observe any rate, frequency, or boll load label restrictions for methomyl in your area. Methomyl will likely cause reddening of cotton foliage. Discontinue this tank mix if reddening becomes excessive.

Before using any tank mix, read the product labels for all environmental and usage cautions. Chlordimeform is restricted to aerial application and to states where registered.

\*\*Full plant coverage needed.

†The mixture of B.t. with chlordimeform for inhibiting the growth of lepidopterous larvae on plants is covered by Abbott U.S. patent 3,937,813

Turt	Sod Webworm	1 to 2	
Crop	Pest	Lbs./100 Gals.	
	Flowers and Ornamentals (ground only)	Loopers	1/4 to 1/2
		Tobacco Budworm	1/4 to 1/2
		Omnivorous	1/4 to 1/2
		Loopers	1/4 to 1/2
		Omnivorous	1/4 to 1/2
		Leafroller	1/4 to 1/2
		Diamondback Moth	1/4 to 1/2
		Armyworms*	1/2 to 1
		Elm Moth (Hornworm)	1/4 to 1/2
	Moth	1/4 to 1/2	
	Oleander Moth	1/4 to 1/2	

\*DIPEL 2X may be used to suppress small armyworms (1st and 2nd instar) when populations are light and full coverage ground sprays are applied.

ACCEPTED

AUG 21 1980

Under the Federal Insecticide, Fungicide, and Plant Anticidide Act, as amended, for the pesticide registered under EPA Reg. No. 275-37