

PM 11 275-37 1/3

ENVIRONMENTAL HAZARDS

Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

Beneficial Insects

Honeybees foraging treated areas are not harmed by Dipel 2X use.

Dipel 2X does not interrupt the activities of beneficial and predaceous 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.

Do not apply this product through any type of irrigation system.

Refer to Package Enclosure for crops, rates and general directions.

STORAGE AND DISPOSAL

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

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

PESTICIDE DISPOSAL: 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 by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of bags in a sanitary landfill or by incineration if allowed by state and local authorities. Dispose of the outer container in the same manner.

Chemical and Agricultural
Products Division
Abbott Laboratories
North Chicago, IL 60064

61-0000-2/84

**WETTABLE POWDER
BIOLOGICAL INSECTICIDE**

Active ingredient:
Bacillus thuringiensis,
var. **Kurstaki**, 32 USC
International Units of Potency
per mg. (14.52 Billion
International Units per
pound) 8.4%
Inert ingredients 91.6%

Net Wt. 10 Lbs.

**KEEP OUT OF REACH OF
CHILDREN
CAUTION**

List No. 5209
E.P.A. Registration No. 275-37
E.P.A. Est. No. 33762-1A-1

ACCEPTED
OCT 17 1988
as amended for the
275-37

BEST AVAILABLE COPY



01 3706 RS 20 0284

**WETTABLE POWDER
BIOLOGICAL INSECTICIDE**

Active Ingredient:
Bacillus thuringiensis, var *kurstaki*,
32,000 International Units of Potency per mg
(14.52 Billion International Units
per pound) 6.4%
Inert Ingredients 93.6%

**KEEP OUT OF REACH
OF CHILDREN**

CAUTION

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



STORAGE AND DISPOSAL

See container label.

BENEFICIAL INSECTS

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

DIPEL 2X does not interrupt the activities of beneficial and predaceous 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.

Do not apply this product through any type of irrigation system.

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.

- 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 Leafy, Root, Stalk, and Seed and Pod Types (Peas, Beans, Lentils, etc., dry or succulent) Potatoes, Cucurbits	Loopers	1/4 to 1/2
	Harworms	1/2 to 1
	Imported Cabbageworm	1/2 to 1
	Diamondback Moth	1/2 to 1
	Green Cloverworm	1/2 to 1
	Webworm	1/2 to 1
	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	Loopers	1/4 to 1/2
	Harworms	1/2 to 1
Eggplant	Tomato Fruitworm*	1/2
	Variiegated Cutworm	1/2
	Salweenish Caterpillars	1/2 to 1
	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.

Cucurbits, Melons, Squash, Cucumbers, etc.	Pinkworm Complex*	1/4 to 1/2
	Melonworms	1/2 to 1
Tobacco	Tobacco Budworm	1/4 to 1/2
	Harworms	1/2 to 1
	Loopers	1/4 to 1/2

DIPEL 2X may be tank mixed with such control products as recommended rates. Follow the application directions on the such control labels. Observe all label precautions for all products used.

Safflower, Sugar beets, Mints	Loopers	1/4 to 1/2
	Salweenish Caterpillar	1/4 to 1/2

Crop	Pest	Pounds/Acre
Soybeans, Sunflowers, Peanuts	Loopers	1/4 to 1/2
	Green Cloverworm	1/4 to 1/2
	Velvetbean Caterpillar	1/4 to 1/2
	Pachworm*	1/4 to 1/2
*DIPEL 2X suppresses pachworms under pest management conditions.		
Alfalfa, Hay, and Small Grains	Loopers	1/4 to 1/2
	Alfalfa Caterpillar	1/4 to 1/2
	European Skipper (Egg Skipper)	1/4 to 1/2
Cotton	Tobacco Budworm*	1/4 to 1/2
	Cotton Budworm*	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 hatching. Repeat treatments at 4 to 5 day intervals as long as necessary and results are acceptable. If 15% or more terminals have eggs and 1/4 lb AI chloroform (Malcron® or Funda®) per acre to 1/2 lb DIPEL 2X increase chloroform 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 Nu-dim®) at 725 to 875 lb AI per acre to control light to moderate infestations of early instar larvae. Observe any rate frequency or ball 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. Chloroform is restricted to aerial application and to states where registered.

**Full plant coverage needed.

*The mixture of Bt with chloroform for inhibiting the growth of lepidopterous larvae on plants is covered by Abbot U.S. patent 3,937,813.

Turf	Sod Webworm	1 to 2
Crop		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
	Looper	1/4 to 1/2
	Omnivorous	1/4 to 1/2
	Leafroller	1/4 to 1/2
	Diamondback Moth	1/2 to 1
	Armyworms*	1/2 to 1
	Elle Moth (Harworm)	1/2 to 1
	It Moth	1/2 to 1
	Clematis Moth	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.

DIPEL 2X FOR STORED AGRICULTURAL COMMODITIES

GRAINS, SOYBEANS, SUNFLOWER SEED, CROP SEED, COMMERCE SEEDS, FRICES, HERBS, BIRDSEED and PORKCORN*

Pest	Rate
Indian Meal Moth	1/2 lb./100 lbs. (undiluted and diluted)
Almond Moth	

*As a surface treatment apply 1/2 lb. DIPEL 2X in 10 gal. of water per 500 sq. ft. of fresh surface area (just one top) inches.

**For all States except California.

For the control and prevention of these pests apply DIPEL 2X in a continuous agitated water suspension to the top four inch surface layer of grain in the bin. Use a sprayer or apply the dosage into the grain directly at the top four inch

Per Gallon Spray Volume:	Use This Amount Per Gallon
0 Gallons	
1/4 lb./acre or 100 gals.	1/2 cup
1/2 lb./acre or 100 gals.	1 cup
1 lb./acre or 100 gals.	2 cups
2 lb./acre or 100 gals.	4 cups

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 direct ed deposits 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 coverage.

Under Federal regulations for the sale of this product, the following information is required for the consumer's use.

275-37

BEST AVAILABLE COPY

DIPEL 2X for Fruits, Nuts, Trees, Ornamentals

Crop	Pest	Pounds/Acre	
Grapes, Small Fruits, Cane and Bush Berries	Grapevine Skeletonizer (ground only)	1/2 to 1/2	
	Grape Leafhopper	1/2 to 1/2	
	Achaea Spotted Moth (Hemivern)	1/2 to 1/2	
	Saltmarsh Caterpillar (ground only)	1/2	
	Omnivorous Leafroller (ground only)	1/2 to 1/2	
	Loopers	1/2 to 1/2	
		Pounds/100 Gallons* (Ground Equipment)	Pounds/Acre (Aerial** Application)
Stone Fruits, Nut Trees, Pomegranates	Redhumped Caterpillar	1/2 to 1/2	1/2 to 1/2
	Yeast Caterpillars	1/2 to 1/2	1/2 to 1/2
	Omnivorous Leafroller	1/2 to 1/2	—
	Fall Webworm	1/2 to 1/2	1/2
	Walnut Caterpillar	1/2 to 1/2	1/2 to 1/2
	Cankerworms	1/2 to 1/2	1/2 to 1/2
Pome Fruits ¹	Cankerworms	1/2 to 1/2	1/2 to 1/2
	Spiny Moth	1/2 to 1/2	1/2
	Variagated Leafroller	1/2 to 1/2	—
	Redheaded Leafroller	1/2 to 1/2	—
	Tufted Apple Budmoth	1/2 to 1/2	—
	Yeast Caterpillars	1/2 to 1/2	1/2 to 1/2
Citrus ²	Fruitree Leafroller	1/2 to 1/2	—
	Drangoid	1/2 to 1/2	—
Tropical Fruits ³	Hemivern	1/2 to 1/2	—
	Leafrollers	1/2 to 1/2	—
	Omnivorous Looper	1/2 to 1/2	—
	Loopers	1/2 to 1/2	—
Forest, Shade Trees and Ornamentals	Spiny Moth	1/2 to 1/2	1/2
	Bagworm	1/2 to 1/2	1/2 to 1/2
	Redhumped Caterpillar	1/2 to 1/2	1/2 to 1/2
	Spring and Fall Cankerworm	1/2 to 1/2	1/2 to 1/2
	Fall Webworm	1/2	1/2
	Elm Spanworm	1/2 to 1/2	1/2 to 1/2
	Yeast Caterpillars	1/2 to 1/2	1/2
	California Oakworm	1/2 to 1/2	1/2 to 1/2
	Pine Butterfly	1/2	1/2
	Spiny Budworm ⁴	1/2	1/2
	Saddle Prominent Caterpillar	1/2 to 1/2	—
	Daughter For Tussock Moth	1/2	1/2
	Western Tussock Moth	1/2 to 1/2	—
	Fruitree Leafroller	1/2 to 1/2	—
	Black-headed Budworm	1/2	—
Monarch Webworm	1/2 to 1/2	—	
Jack Pine Budworm	1/2 to 1/2	1/2 to 1/2	
Saddleback Caterpillar	1/2 to 1/2	—	

*Base for hydraulic sprayer. For aerial blowers use the applicable amount (lbs) = 10 gallons of water.
 **For aerial application, use 100 to 150 gallons of water depending on type and density of trees. For best results, spray systems which deliver droplet size of 200 microns should be used.
¹Use 400-450 gallons/acre to suppress listed pests in pest management programs.
²Use 100 to 400 gallons/acre.
³Use at least 200 gallons/acre.
⁴Use against populations below 25 larvae per 10 inch branch tip. Use a minimum of 1/2 gallon/acre by air application can be delayed until late winter or early spring before moth activity begins. Control for a full storage season should normally be expected, however, repeat application if an infestation occurs.
 This treatment controls the moth larvae if an infestation is present when the grain is treated, moth emergence may continue for several days. If immediate control of severe infestations is desired, grain should be fumigated prior to application of the treatment. DIPEL 2X will not control weevils or other beetles.
 DIPEL 2X is exempt from tolerance restrictions and the treated grain can be used at any time after treatment for any use.
 **For commodities coarser than shelled corn increase depth of treatment according to the label of the pest.

PEANUTS

Pest	Rate
Indian Meal Moth	1/4 lb./ton*
Almond Moth	1/4 lb./ton*

*Apply this rate to the top four to eight feet of nuts when filling the warehouse.
 To prevent and control these pests, spray an even coating of DIPEL 2X on the farmer stock peanuts while filling the ware house. To make the spray solution, mix 3 1/2 lbs. DIPEL 2X per 5 gallons of water. Apply in 15 rows of commodity. The rate per row must spray somewhat less than 100 lb. about within 12 hours. The spray suspension applied during application, use air pressures and nozzles sufficient to handle the suspension.

Before filling the warehouse, clean thoroughly, then spray interior of the facility with a DIPEL 2X suspension at the rate of 1/2 lb. DIPEL 2X per 100 gallons water. Spray enough suspension to wet all cracks and crevices.

For bagged peanuts, treat the whole mass of commodity at the rate indicated above.

FLUE-CURED TOBACCO

Pest	Rate
Tobacco Moth	1/50 or 1/100 lbs.*

*Apply 0.2 ounce (approximately 2 1/2 teaspoons) of DIPEL 2X in one quart of water per 100 pounds of tobacco as a fine mist spray. Avoid overwetting. Tobacco should have just enough moisture to be handled without shattering at the time of application.

Tobacco to be stored up to Twelve Months.
 Spray loose leaves as the tobacco is being banded from the curing barn. For tobacco on sticks, treat both sides of leaves.

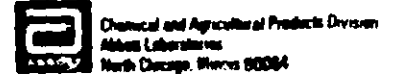
Stored Tobacco.
 For tobacco which is to be carried over, rebanded or restock sticks, half up tobacco and spray loose leaves.

For tobacco that has been stored over three weeks, apply at first signs of infestation, promptly open burlaps, spray loose leaves, then handle.

Treatment of Storage Barns.
 If tobacco has been treated, or is going to be treated, treat more of the floors and walls may be made to aid in control. Sweep out the area, especially cracks and corners, and all of the loose tobacco pieces in which the moth might breed. Make a spray mixture containing 1/2 lb. DIPEL 2X per 2 1/2 gallons of water. Apply this at a rate of 1/2 gallon per 1000 sq. ft. of surface area. Be sure to spray into cracks and between floorboards.

NOTICE TO USER

Seller makes no warranty express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.
 *Fossil, Galeon, Lamate, Nudim are trademarks of companies other than Abbott Laboratories.



Lot 5799 Printed in U.S.A.

Under Federal regulations, this product is restricted for use. 275-37

dipel[®]
WORM KILLER
2X



BEST AVAILABLE