

275-36

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dipel 4L

WORM KILLER

01-2148/R2-000-7-80

EMULSIFIABLE SUSPENSION BIOLOGICAL INSECTICIDE

Active Ingredient:
Bacillus thuringiensis, Berliner, 8,800 International Units of Potency per mg. (32 billion International Units per gallon).

**KEEP OUT OF REACH
OF CHILDREN
CAUTION**

E.P.A. Registration No. 275-36
E.P.A. Est. No. 5905-AR-01
E.P.A. Est. No. 33762-1A-1

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.

| Rate in | Use This Amount Per Gallon |
|---------------------------|----------------------------|
| 1/2 pt./acre or 100 gals. | 1/2 tsp. |
| 1 pt./acre or 100 gals. | 1 tsp. |
| 1 qt./acre or 100 gals. | 2 tsps. |
| 2 qts./acre or 100 gals. | 4 tsps. |

DIRECTIONS FOR USE

DIPEL 4L 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 4L 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 4L 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 4L, larvae stop feeding within the hour, and will die within several days. Dying larvae move slowly, discolor, then shrivel, blacken and die.

DIPEL 4L 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, add the DIPEL 4L. Continue agitation. Then add other spray materials (if any). Add the balance of the water. Maintain the suspension while loading and spraying. Do not mix more DIPEL 4L than can be used in a 12-hour period.

CAUTION

DIPEL 4L compatibility with chemical insecticides, fungicides and other spray materials is unknown. Tank mixes should be avoided except where specific recommendations are made in the label.

APPLICATION RATE

| Crop | Pest | Pints/Acre |
|---|----------------------------------|--------------|
| Cole Crops | Loopers | 1 to 2 |
| | Hornworms | 1/2 to 1 |
| | Imported Cabbageworm | 1/2 to 1 |
| | Diamondback Moth | 3/4 to 1 1/2 |
| | Green Cloverworm | 1/2 to 1 |
| | Webworm | 1 to 2 |
| | Armyworms* | 2 to 4 |
| Soybeans | Loopers | 1 to 2 |
| | Green Cloverworm | 1/2 to 1 |
| | Velvetbean Caterpillar | 3/4 to 1 1/2 |
| | Podworm** | 1 to 2 |
| Alfalfa, Pastures, Hay, Small Grains and Forage Crops | Loopers | 1 to 2 |
| | Alfalfa Caterpillar | 1/4 to 1/2 |
| | European Skipper (Essex Skipper) | 1/2 to 1 |
| | Range Caterpillar | 1/4 |
| Rowan | Range Caterpillar | 1/4 |
| Cotton | Tobacco Budworm* | 1/2 to 2 |
| | Cotton Bollworm* | 1/2 to 2 |
| | Loopers** | 1 to 2 |

*DIPEL 4L may be used to suppress small armyworms (1st and 2nd instar) when populations are light and full coverage ground sprays are applied.

**DIPEL 4L suppresses podworms under pest management conditions

Use in 1 to 2 qts. water per acre against 1st through 4th instar larvae.

*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 chlordimelform (Galecron® or Fundal®) per acre to 1/2 pt. DIPEL 4L. Increase chlordimelform to 1/2 lb. AI if needed.

Once beneficial insects are no longer a factor, DIPEL 4L (at 1/2 to 1 1/2 pts./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. Chlordimelform is restricted to aerial application and to states where registered.

**Full plant coverage needed.

The mixture of B.t. with chlordimelform for inhibiting the growth of lepidopterous larvae on plants is covered by Abbott U.S. patent 3,937,613.

CAUTION

Avoid contact with skin, eyes or clothing. In case of contact immediately flush eye or skin with plenty of water. Get medical attention if irritation persists.

BENEFICIAL INSECTS

Honey bees foraging treated areas are not harmed by DIPEL 4L use.

DIPEL 4L 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 4L. Store under cover at temperatures under 110°F (43°C).

DISPOSAL: Do not reuse 1 qt. or 2.5 gal. container. Perforate or crush and discard empty container according to local trash disposal regulations.

Thoroughly clean and rinse empty drum with water and remove labeling. Unused pesticide or dilute spray and rinsate should be disposed of by burial.

Days to harvest: There are no restrictions on applying DIPEL 4L up to the time of harvest.

Sites: DIPEL 4L may be used for any labeled pest in both field and greenhouse uses.

ACCEPTED
SEP 10 1980
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 275-36

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