

Reg # 275-36

PM-18

File

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division

OCT 19 1993

Marvin H. Alphin
ABBOIT LABORATORIES
DR. JOSEPH C. WHITE DIRECTOR, REGULATORY
14TH AND SHERIDAN RD.
NORTH CHICAGO IL 60064

Subject: Label Amendment Submission of 06/29/93
to Comply with WPS Labeling Requirements
EPA Reg Nr. 275-36
DIPEL 4L WORM KILLER

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is accepted subject to the comments listed below.

Based on your certification, the Agency has accepted only those changes to your labeling which are necessary to comply with PR Notices 93-7 and 93-11, which reflect the WPS labeling requirements of 40 CFR part 156, subpart K. Any other labeling changes submitted in connection with this amendment application and not directly related to compliance with PR Notice 93-7 or 93-11 have neither been reviewed nor accepted by the Agency. If you wish to make any such changes, you must submit a separate amendment application proposing them. If your product registration is currently suspended, acceptance of this labeling amendment does not affect the suspension in any way.

A copy of your proposed labeling stamped, "Accepted with comments", is attached. Make any required changes described below and send three copies of final labeling as soon as it is available to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (H-7504C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460-0001

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ABBOTT LABORATORIES
EPA Reg. Number: 275-36
DIPEL 4L WORM KILLER
Application date: 06/29/93
Original Submission

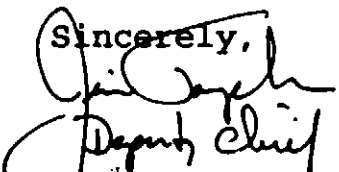
Hand or courier deliveries of final labels may be made to:

Document Processing Desk (FIN-LABEL)
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

User Safety Recommendations must either be placed in a box or printed on the label in a contrasting color from surrounding text.

Please correct the typographical errors circled on the draft before printing final labeling.

In your final labeling, the "Agricultural Use Requirements" text must be contained in a clearly separate box. This box may be set apart by a line, by another graphical device, by a different color background, or in any other way that clearly distinguishes it from surrounding text.

Sincerely,

Deputy Chief
Registration Support Branch
Registration Division

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DIPEL 4L

BIOLOGICAL INSECTICIDE

EMULSIFIABLE SUSPENSION

Active Ingredient

Bacillus thuringiensis var. *kurstaki*

8,800 International Units of Potency per mg

(32 billion International Units per gallon).....1.76%

Inert Ingredients.....98.24%

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Reg. No. 275-36
EPA Est. No. 33762-IA-1
List No. 5138-04-26

ACCEPTED
with COMMENTS
In EPA Letter Dated
OCT 19 1993
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
275-36

STATEMENT OF PRACTICAL TREATMENT

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

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)

Avoid contact with skin, eyes or clothing.

Personal Protective Equipment

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

BEST AVAILABLE COPY

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Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or viton
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

-Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

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

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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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 box only apply to uses of this product that are covered by the Worker Protection Standard.

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.

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
- Chemical Resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber or viton.
- Shoes plus socks

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STORAGE AND DISPOSAL

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

STORAGE: Keep containers tightly closed when not in use. At temperatures less than 0°F and greater than 100°F, DiPel 4L should be stored under cover.

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: Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities by burning. If burned, stay out of smoke.

APPLICATION DIRECTIONS

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

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.

For Smaller Spray Volumes:**Use This Amount:
If Rate Is 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.

DiPel 4L is a highly selective insecticide for use against listed caterpillars (larvae) of lepidopteran 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 72-hour period.

CAUTION: Rinse and flush spray equipment thoroughly following each use.

CAUTION

DiPel 4L should not be used in combination with Comite® Bravo® (except celery), Captafol, Captan (except seed) or Dyrene®.

(ALL STATES EXCEPT CALIFORNIA) The effects of combining DiPel 4L with fungicides (other than Benomyl, Maneb, Mancozeb, or Captan and miticides are unknown.

FOR CALIFORNIA ONLY

The effects of combining DiPel 4L with insecticides, fungicides and other spray materials are unknown. Tank mixes should be avoided except where specific recommendations are made in the label for use in California.

APPLICATION RATE

Crop	Pest	Pints/Acre
Cole Crops*	Loopers	1 to 2
Celery ¹	Imported Cabbageworm	1/2 to 1
Lettuce	Diamondback Moth	2/3 to 1 1/3
Spinach ¹		

¹For all states except California.

•Do not apply by air to plants after transplant or other stress before 6 weeks in the field. Use more than 25 gallons of water per acre by ground and 10 gallons of water per acre by air.

Soybeans	Loopers	1 to 2
Peanuts ¹	Green Cloverworm	1/2 to 1
Peas ¹	Velvetbean Caterpillar	2/3 to 1 1/3
	Podworm (<i>Heliothis zea</i>)*	1 to 2
	Armyworms* ¹	2 to 4

*DiPel 4L suppresses early instar larvae of Podworms and Armyworms when populations are light to moderate.

¹For all states except California.

Crop	Pest	Pints/Acre
Tobacco ¹	Tobacco Budworm	1
	Hornworms	1/2 to 1
	Loopers	1

¹For all states except California

Tomatoes	Loopers	1 to 2
	Tomato Fruitworm*	2
	Variegated Cutworm	2
	Saltmarsh Caterpillar	1 to 2
	Hornworms	1/2 to 1
	Armyworms*	2 to 4

*Apply weekly in a preventative program.

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

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DiPel 4L¹ may be tank-mixed with Benomyl, Maneb, or Mancozeb for application on tomatoes. Observe all label precautions for all products used.

¹For all states except California.

Crop	Pest	Pints/Acre
Alfalfa, Hay, and Small Grains	Loopers	1 to 2
	Alfalfa Caterpillar	1/4 to 1/2
	European Skipper (Essex Skipper)	1/2 to 1
Cotton	Tobacco Budworm*	1/2 to 2
	Cotton Bollworm*	1/2 to 2
	Loopers**	1 to 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 1/8 lb. AI methomyl¹ (Lannate[®] or Nudrin[®]) per acre to 1/2 pt. DiPel 4L.

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.

DiPel 4L¹ may be tank mixed with vegetable or cottonseed oil at the ratio of 1 pint 4L to 1 pint oil. DiPel 4L may also be mixed at a ratio of 40 parts 4L to 60 parts water, and applied in total spray volume not to exceed 80 fl. oz. per acre.

**Full plant coverage needed.

¹All states except California.

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Crop	Pest	Pints/Acre
Avocados ¹	Amorbia Moth Omnivorous Leafroller Omnivorous Looper Orange Tortrix	Not more than 8

Use a minimum of 200 gallons of water per acre by ground rig or 10 gallons by aircraft. Maximum of two applications per season.

¹For all states except California.

CROP SEED¹

Pest	Rate
Indian Meal Moth Almond Moth	1 1/2 pts/100 bu

Mix thoroughly prior to bagging.
DiPel 4L is compatible with common seed treatments including Captan, Methoxychlor, Carboxin (Vitavax) and Malathion. Fumigation has not been found to decrease the effectiveness of DiPel 4L.

¹For all states except California.

DIPel 4L for Trees and Shrubs²

Crop	Pest	Pints/100 Gallons* (Ground Equipment)	Pints/Acre (Aerial** Application)
Forest, Shade, Sugar Maple Trees and Shrubs ²	Gypsy Moth	1 ¹ to 4	2 ¹ to 4
	Bagworm	1 to 2	1 to 2
	Redhumped Caterpillar	1/2 to 1	1/2 to 1
	Spring & Fall Cankerworm	1/2 to 1	1/2 to 1
	Fall Webworm	1	1
	Elm Spanworm	1 to 2	1 to 2
	Tent Caterpillars	1/2 to 1	1 ¹ to 2
	California Oakworm	1/2 to 1	1/2 to 1
	Pine Butterfly	2	2
	Spruce Budworms ³	2 ¹ to 4	2 ¹ to 4
	Saddled Prominent Caterpillar	1 to 2	1 to 2 ¹
	Douglas Fir Tussock Moth	2	2
	Western Tussock Moth	1 to 2	-
	Fruittree Leafroller	1 to 2	-
	Blackheaded Budworm	2	-
	Minosa Webworm	1 to 2	-
Jack Pine Budworm	1 to 2	1 1/2 to 2	
Saddleback Caterpillar	1 to 2	-	

*Rate for hydraulic sprayer in California. In other states, less water may be used if adequate coverage is provided. For mist blowers, mix the applicable amount (pints) in zero to 10 gallons of water; except in California, mix the applicable amount (pints) in 10 gallons of water.

**For aerial applications, use in zero to 10 gallons (in California, against all pests except Spruce Budworms, use in 1 to 10 gallons) of water depending on type and density of trees. For best results, spray systems which deliver droplet size of 200 microns or less should be used.

*Use only the low rate in California.

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²All states except California.

³Use rates greater than 2 pints in Northern states for heavy populations. In California, tank mix ratio of water to DiPel 4L must be no less than 50:50.

NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning 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.

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Dyrene[®] is a registered trademark of Mobay Corp.

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

DiPel 4L.epa
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