

464-448

6-14-1979

1/8



LORSBAN* 4E

INSECTICIDE

*For Control of Various Insects Infesting Certain
Field, Fruit, Nut, and Vegetable Crops*

Complete Directions for Use, Use Precautions and Restrictions,
Hazards and Other Important Information
For the Proper Use, Handling, Storage and Disposal of this Product

D479

Trademark of THE DOW CHEMICAL COMPANY

EPA Reg. No. 464-448
EPA Est. No. 464-MI-1

2/8

**READ ENTIRE LABEL
BEFORE USING THIS PRODUCT**

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

TRANSLATION (TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

In case of an emergency endangering life or property involving this product, call collect 517-636-3400.

ACTIVE INGREDIENTS:

- Chlorpyrifos [O,O-diethyl O-(3,5,6-trichloro-2-pyridyl) phosphorothioate] 40.7%
- Aromatic petroleum derivative solvent 22.8%

INERT INGREDIENTS: 36.5%

Contains 4 pounds of chlorpyrifos per gallon

CONTENTS

| Hazards | Page |
|---------------------------------|------|
| Human and Domestic Animal | 3 |
| Physical and Chemical | 3 |
| Environmental | 4 |
| Directions for Use | |
| General Information | 5 |
| Mixing Instructions | 5 |
| Use and Dosage | |
| Recommendations | 5 |
| Cotton | 5 |
| Field Corn | 8 |
| Peaches | 9 |
| Tree Fruits | 10 |
| Sweet Potatoes | 11 |
| Storage and Disposal | 12 |

HAZARDS
KEEP OUT OF REACH OF CHILDREN
WARNING

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND
DOMESTIC ANIMALS . . .

MAY BE FATAL IF SWALLOWED
MAY BE ABSORBED THROUGH
SKIN • MAY BE INJURIOUS
TO EYES AND SKIN . . .

Do Not Take Internally • Do Not Get
in Eyes, on Skin or on Clothing
Avoid Breathing Vapors and
Spray Mist

Wash Thoroughly After Handling

In case of contact, immediately flush contaminated eyes with plenty of water and get prompt medical attention. Promptly wash contaminated skin with soap and plenty of water. Wash contaminated clothing before reuse.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine is an antidote.

Physical and Chemical hazards
COMBUSTIBLE

Do Not Use or Store Near Heat
or Open Flame • Do Not Cut or
Weld Container

In case of an emergency endangering
life or property involving this
product, call collect

517-636-4400

AGRICULTURAL CHEMICAL

Do Not Ship or Store with Food, Feeds,
Drugs or Clothing

Environmental

This product is highly toxic to bees exposed to direct treatment or residues on crops. Avoid use when bees are actively foraging. Protective information may be obtained from your Cooperative Agricultural Extension Service.

LORSBAN 4E insecticide is toxic to fish, birds and other wildlife. Fish and crustaceans may be killed if their waters are contaminated with this product. Keep out of lakes, streams, ponds, tidal marshes and estuaries. Do not apply when runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes. Use this product only as specified on this label.

DIRECTIONS FOR USE

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

4/8

General Information

LORSBAN 4E insecticide forms an emulsion when diluted with water and is suitable for use in all conventional hand- and power-operated ground spray equipment. Aerial spray equipment also may be used where specified.

Mixing Instructions

To prepare the spray, start filling the spray tank with the required amount of water, add the recommended amount of LORSBAN 4E, and complete filling the tank with the balance of the water needed. Maintain sufficient agitation during both mixing and application to ensure uniformity of the spray mixture.

Use and Dosage Recommendations

COTTON: Use LORSBAN 4E for control of the following pests at the dosages indicated:

Plant bugs

(*Lygus*, *Mirids*) 1 pint per acre;

Pink bollworm, bollworms,

(*Heliothis spp.*), **boll weevil,**

spider mites 2 pints per acre;

Mix the required dosage with sufficient water to ensure thorough coverage of plants and apply using aerial or power-operated ground spray equipment. For aerial application, use at least 1 gallon of water per acre. Treat when field counts indicate damaging insect populations are developing or present. Re-treat as necessary to maintain control.

For effective control of spider mites when large numbers of eggs are present, apply a second spray within 5 to 7 days after initial treatment to control newly hatched larvae.

For best results on bollworms, it is suggested that fields be scouted twice per week and treatments made when worms are 1/4 inch or less in length. The following table illustrates the size of worms in relation to age and stage of development (instar) as a guide to timing of treatments for best control. From the table it can be seen that a scouting schedule of only once per week will not be satisfactory since the worms may be too big to control effectively by the seventh or eighth day.

Timing for the best worm control

| | Age (days) | Size | Instar |
|-----------------------------|------------|--------|--------|
| Get the worms at this stage | Hatch | 1/16" | Hatch |
| | 3 | 3/32" | I |
| | 5 | 9/32" | II |
| | 6 | 7/16" | III |
| | 8 | 11/16" | IV |

5/8

Proper application techniques help to ensure thorough spray coverage and correct dosage and are thus important in obtaining good control of pests. Consider these suggestions when applying LORSBAN 4E Insecticide on cotton:

Aerial Application: Shorten boom length to reduce spray from entering the vortices at the wing tips. Swath width should be reduced when wind direction is the same as direction of spraying.

The proper nozzle arrangement and swath width to avoid skips and excessive vortices effect can be checked out by flying over a paper tape (adding machine paper) using water with or without methylene blue dye. (The dye gives a permanent record.)

Flying at a height of 5-15 feet above the target results in the best coverage.

Nozzle orientation of the boom is important. More break-up occurs when nozzles are pointed straight down versus the straight back position. Desired droplet size (100-200 microns) can be obtained by angling the nozzles somewhere in this range.

Marking of swath by flagging or permanent markers is essential.

Ground Application: Orient the boom and nozzles so that uniform coverage is obtained. The swath width should not be wider than the boom; drift spray is wasted

spray so do not depend on it. Use flat spray or disc-core hollow cone nozzles with maximum spacing of 20 inches and a spray pressure of 40-60 psi with a droplet size of 100-200 microns.

Restrictions: Do not apply within 14 days before harvest. Do not allow livestock to graze in treated areas. Do not feed gin trash or treated forage to livestock.

FIELD CORN: For Use to Control Cutworms

Preplant Treatment: Use 2 to 4 pints of LORSBAN 4E in not less than 10 gallons of water per acre and apply as a broadcast spray to the soil surface using suitable power-operated ground spray equipment. As soon as possible after treatment incorporate the insecticide into the top 2 to 4 inches of soil using a disc, field cultivator or equivalent equipment.

Postemergence Treatment: Use 2 to 3 pints of LORSBAN 4E per acre in sufficient water to ensure thorough coverage. Apply as a broadcast spray using either aerial (fixed-wing or helicopter) or power-operated ground spray equipment. For aerial application use at least 2 gallons of water per acre. Treat when field counts indicate that worms are or may become a problem, preferably when soil is moist and worms are active on or near the soil surface. If ground is dry, cloddy, or crusty at time of treatment, worms may be protected from

6/8

the spray and effectiveness will be reduced. If such conditions exist, shallow cultivation using a rotary hoe or equivalent equipment before or soon after treatment may improve control. Consult your State Agricultural Experiment Station or Extension Service specialist for additional information concerning cutworm control practices in your area.

Restrictions: Make only one postemergence application for cutworm control per season.

Do not allow livestock to graze in treated areas or feed treated corn silage, fodder or grain to meat or dairy animals within 50 days after treatment.

Attention: Before using this product, read and carefully observe all hazard information given in this booklet.

PEACHES: Use LORSBAN 4E Insecticide for the control of peach tree borers by application as a trunk spray before newly hatched borers enter the trees. Mix 3 quarts of LORSBAN 4E with 100 gallons of water and apply as a coarse, low-pressure spray to give uniform coverage of tree trunks. Thoroughly wet all bark areas from ground level to scaffold limbs. Do not allow spray to contact fruit. Consult your State Agricultural Experiment Station or Extension Service specialist for proper time to treat in your area.

Restrictions: Make only one application per season. Do not apply within 14 days before harvest. Do not allow meat or dairy animals to graze in treated orchards.

TREE FRUITS: Use LORSBAN 4E as a dormant or delayed dormant spray at the rates indicated to control the following insects on the crops listed.

| Crop | Insect | Dosage LORSBAN 4E |
|---------|------------------|-------------------|
| Apples | Rosy apple aphid | |
| | San Jose scale | |
| Pears | San Jose scale | |
| Plums | San Jose scale | ½ to 1 quart |
| Prunes | Mealy plum aphid | |
| Almonds | San Jose scale | 1 quart |
| Peaches | Peach twig borer | |

Tank mix the specified dosage with 1 to 2 gallons of a petroleum spray oil recommended for dormant use in 100 gallons of water and spray the entire tree by application to runoff using suitable ground spray equipment. Use the higher dosage of LORSBAN 4E for severe infestations. Use oil as recommended by your State Agricultural Experiment Station or Extension Service Specialist.

7/8

Restrictions: Make only one application during the dormant season. Do not allow meat or dairy animals to graze in treated orchards.

SWEET POTATOES: Use LOBSPAN 4E to control *Conoderus* wireworms, *Systema* flea beetles, and the sweet potato flea beetle by preplant application at the rate of 4 pints per acre as a broadcast (overall) spray to the soil surface followed by incorporation. Mix the specified dosage with enough water to obtain uniform coverage of the treated area and apply as a coarse spray using suitable ground spray equipment. After application, incorporate the insecticide into the soil to a depth of 4 to 6 inches using a rotary hoe, disc cultivator, or other suitable incorporation equipment. Plant the crop in the usual manner as soon as possible after treatment.

Restrictions: Do not make more than one application per season.

STORAGE AND DISPOSAL

Storage: Keep away from food, feedstuffs, and domestic water supplies. Handle concentrate in a ventilated area. Keep container closed.

Disposal: Do not reuse empty container for any purpose. Promptly crush or perforate and bury with wastes in a location away from water supplies. Follow official local pesticide container disposal regulations where applicable.

ATTENTION:

Do Not Cut or Weld Container

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

8/8

ACCEPTED

JUN 14 1979

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 464-448

THE DOW CHEMICAL COMPANY

AND SUBSIDIARIES

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