

ACCEPTED

MAR 1982



Lorsban 4E insecticide*

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

KEEP OUT OF REACH OF CHILDREN

WARNING

MAY BE FATAL IF SWALLOWED • MAY BE ABSORBED THROUGH SKIN
MAY BE IRRITANT TO EYES AND SKIN
SEE BACK PANEL FOR ADDITIONAL PRECAUTIONS

For more information, contact your local
pesticide distributor or call
517 636 4400

AGRICULTURAL CHEMICALS
D. N. S. Co. or State with Local Agents
D. N. S. Co. or State

18.93 L / 5 gal

86-1417 PRINTED IN U.S.A. IN JUNE, 1982.
REPLACES SPECIMEN LABEL 86-1417 PRINTED IN MAY, 1982.
DISCARD PREVIOUS SPECIMEN LABELS.
REVISIONS INCLUDE: (1) ADDITION OF CITRUS FRUIT CROPS, (2) GRASSHOPPER CONTROL
FOR COTTON, AND (3) VARIOUS INSECT CONTROL ON SUNFLOWERS.

SL1490

SPECIMEN LABEL

REDUCED TO 55%

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

Statements of Practical Treatment

If Swallowed, do not induce vomiting. Contains aromatic petroleum solvent. Call a physician immediately.

If On Skin: In case of contact, remove contaminated clothing and immediately flush skin with soap and water. Wash contaminated clothing before reuse.

If In Eyes: Flush eyes with plenty of water for 15 minutes. Call a physician.

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

Physical and Chemical Hazards

COMBUSTIBLE

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

Environmental Hazards

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

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 where 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 this labeling.

READ AND FOLLOW COMPLETE DIRECTIONS FOR USE AND OTHER IMPORTANT INFORMATION GIVEN IN BOOKLET ATTACHED TO PRODUCT CONTAINER

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.

NOTICE: Seller warrants that the product is for the purposes stated on the label when used as directed. But neither this warranty nor any other PARTICULAR PURPOSE, express or implied, creates or under any circumstances, shall the seller assume the risk of any such use. U.S.P.

10566 016 2

THE DOW CHEMICAL COMPANY

AND SUBSIDIARIES

MIDLAND, MICHIGAN 48640 USA Horgen SWITZERLAND HONG KONG
CORAL GABLES, FLORIDA 33134 USA SARNIA, ONTARIO CANADA

*Trademark of THE DOW CHEMICAL COMPANY



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.

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

TS82

* Trademark of THE DOW CHEMICAL COMPANY

RO INSECTICIDE
LIQUID N.O.S.
(Chlorpyrifos) NA 1993
F.P. 73-100°F



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.

U.S. Patent No. 3,244,586

1000-016-2

45378-1482

DOW CHEMICAL COMPANY AND SUBSIDIARIES

MICHIGAN 48640, USA MORGEN, SWITZERLAND HONG KONG
FLORIDA 33134, USA SARNIA, ONTARIO, CANADA

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THE DOW CHEMICAL COMPANY
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45378-TS82

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

Statements of Practical Treatment

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Physical and Chemical hazards
COMBUSTIBLE

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

Environmental Hazards

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

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 where 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

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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, add a portion of the required amount of water to the spray tank and with agitation add the LORSBAN 4E. Complete filling the tank with the balance of water needed. Maintain sufficient agitation during both mixing and application to ensure uniformity of the spray mixture.

LORSBAN 4E insecticide may also be used in tank mixtures with certain herbicides and/or non-pressure fertilizer solutions as recommended under specific crop use directions. Prepare tank mixtures in the same manner as recommended above for use of LORSBAN 4E alone. When tank mixtures of LORSBAN 4E and herbicides are involved, add wettable powders first, flowables second, and emulsifiable concentrates last. Where a fertilizer solution is involved, it is strongly recommended that a fertilizer-pesticide compatibility agent such as Ute¹ or Complex² be used. Maintain constant agitation during both mixing and application to ensure uniformity of the spray mixture.

NOTE: Test compatibility of the intended tank mixture before adding LORSBAN 4E to the spray mixture tank. Add proportionate amounts of each ingredient to one pint or quart jar, cap

shake, and let set 15 minutes. Formation of precipitates that do not readily redispense indicates an incompatible mixture that should not be used.

¹ Trademark of The Hopkins Agricultural Chemical Company

² Trademark of Kalo Laboratories, Inc.

Use and Dosage Recommendations

ALFALFA: Use LORSBAN 4E to control the following pests at the dosages indicated by application as a broadcast, foliar spray.

Armyworms, corn rootworms (adults), grasshoppers, alfalfa blotch leafminer, alfalfa looper, alfalfa weevil, aphids, cutworms, Egyptian alfalfa weevil, plant bugs, leafhoppers.

Mix the required dosage with enough water to ensure thorough coverage of crop foliage and apply using 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 or crop injury indicates that damaging pest populations are developing or present; however, do not apply more than once per crop cutting.

LORSBAN 4E insecticide should not be tank-mixed with pesticides, surfactants, or fertilizer formulations unless prior use has shown the combination non-injurious under your current conditions of use. Some phytotoxic symptoms may be observed on young, tender rapidly growing alfalfa when treated with LORSBAN 4E. Alfalfa will outgrow the symptoms and no yield loss should be expected.

Restrictions: Do not cut or graze treated alfalfa within 14 days after application of 1 pint of LORSBAN 4E per acre nor within 21 days after application of rates above 1 pint per acre. Do not make more than 4 applications per year.

CITRUS FRUITS: Use LORSBAN 4E insecticide at the rates indicated to control the following pests. Use the lower rates for light infestations and increase the dosage for heavier infestations.

CROP	PEST	Dosage LORSBAN 4E for		Gallons of Spray Per Acre For Applications	Remarks
		Outside Coverage Spray (OC)	Concentrate (Pints/Acre)		
Grapefruit, Lemons, Oranges, and Other Citrus Fruits	Aphids, Keyhole, Lapidiferous larvae, Cutworms, Fruit tree leafroller, Orange tortrix, Western tussock moth	1/2 to 1	2 to 7	200 to 700	All states except Calif.
	Citrus thrips, Mealy bugs, Scale insects, Black scale, Brown soft scale, California red scale, Snow scale, Chalk scale	1/2 to 1	2 to 7	200 to 700	All states except Calif.

¹ In California apply as Thorough Distribution Coverage (TDC) using 1/2 to 1 pint of LORSBAN 4E in 100 gallons of water and 6 to 12 pints LORSBAN 4E per acre in dilute or concentrate sprays. For dilute sprays, apply 600 to 1200 gallons of spray per acre.

² In California apply as Thorough Coverage (TC) using same dosages as ¹. For dilute sprays apply 1200 to 2400 gallons of spray per acre but do not apply more than 12 pints of LORSBAN 4E per acre.

³ Gallonage per acre based on average size of mature trees. Adjust to tree size per acre.

For dilute applications, use the specified dosage in 100 gallons of water for the spray type indicated for pest to be controlled. For concentrate sprays, use the same amount of LORSBAN 4E per acre that would be needed for application as a dilute spray, using appropriate application/coverage procedures. Treat when insects become a problem or in accordance with the local spray schedule recommended by your State Extension Service Specialist. Do not apply during bloom period or when temperature exceeds 95°F.

Restrictions: Do not apply more than 2 applications per fruit year or more than 15 pints of LORSBAN 4E insecticide per acre per fruit year. Do not make second application within 30 days of the first application. Do not treat within 21 days before harvest for applications up to 7 pints of LORSBAN 4E per acre nor within 35 days for application of rates above 7 pints per acre. Do not pick fruit or do other work involving contact with trees within 2 days after treatment. Do not allow livestock to graze in treated areas.

FIELD CORN, POPCORN, SWEET CORN: For use to control cutworms, armyworms, chinch bugs, grasshoppers, wireworms, flea beetle larvae and adults, aphids, billbugs, grubs, symphylans and lesser cornstalk borer.

Preplant Incorporation Treatment: Use LORSBAN 4E at the following rates by application in sufficient water to the soil surface and incorporate into the soil:

Cutworms, symphylans 2 to 4 pints per acre;
 Wireworms, billbugs, flea beetle larvae, grubs 4 pints per acre.

Use recommended rate 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. On the same day of treatment, incorporate the insecticide into the top 2 to 4 inches of soil using a disc, field cultivator or equivalent equipment.

LORSBAN 4E insecticide may also be applied in tank mixtures with non-pressure fertilizer solutions and/or with Bladex¹, Eradican², Sutan³, Lasso⁴, Dual⁵, and Atrazine herbicides. See the Mixing Instructions section of this label for further information. Read and carefully follow all applicable directions, restrictions, and precautions on labeling for the other products used in combination with LORSBAN 4E.

¹ Trademark of Shell Chemical Company

² Trademark of Stauffer Chemical Company

³ Trademark of Monsanto Company

⁴ Trademark of Ciba-Geigy Corporation

Postemergence Treatment: Use LORSBAN 4E at the following rate by application in sufficient water to ensure thorough coverage of treated plants:

Grasshoppers 1/2 to 1 pint per acre;
 Armyworms, chinch bugs, aphids 1 to 2 pints per acre;
 European and southwestern corn borer 1.5 to 2 pints per acre;
 Cutworms, billbugs, lesser cornstalk borer, flea beetle adults 2 to 3 pints per acre.

Treat when field counts indicate that pests are or may become a problem. For best billbug, chinch bug, and flea beetle adult control, apply with sufficient water to ensure a minimum spray volume of 20 to 40 gallons per acre and 40 psi using ground spray equipment. On corn less than 6 inches tall, apply the insecticide spray in a 9 to 12 inch wide band over the row. On corn greater than 6 inches tall, apply the insecticide spray using drop nozzles directed to the base of the plant. When chinch bugs continue to migrate to corn over a prolonged period or under extreme pressure, a second application of LORSBAN 4E may be needed.

Apply as Thorough Distribution Coverage (TDC): 1 pint of LORSBAN 4E in 100 gallons of water and 1 LORSBAN 4E per acre in dilute or concentrate dilute sprays, apply 600 to 1200 gallons of spray

Apply as Thorough Coverage (TC) using same rate as TDC. For dilute sprays apply 1200 to 2400 gallons per acre but do not apply more than 12 pints of 4E per acre

per acre based on average size of mature trees and size per acre

Applications, use the specified dosage in 100 water for the spray type indicated for pest to be controlled. For concentrate sprays, use the same amount of 4E per acre that would be needed for application spray, using appropriate application coverage. Treat when insects become a problem or in with the local spray schedule recommended by Extension Service Specialist. Do not apply during or when temperature exceeds 95°F

Do not apply more than 2 applications per fruit or 15 pints of LORSBAN 4E insecticide per year. Do not make second application within 30 days of first application. Do not treat within 21 days before applications up to 7 pints of LORSBAN 4E per acre for application of rates above 7 pints per acre. Do not pick fruit or do other work involving contact with treated areas. Do not allow livestock to graze in treated areas.

POPCORN, SWEET CORN: For use to control armyworms, chinch bugs, grasshoppers, wire-beetle larvae and adults, aphids, billbugs, grubs, and lesser cornstalk borer.

Preparation Treatment: Use LORSBAN 4E at the rates by application in sufficient water to the soil incorporate into the soil.

lymphians 2 to 4 pints per acre; billbugs, flea beetle larvae, grubs 4 pints

Recommended rate in not less than 10 gallons of water and apply as a broadcast spray to the soil surface. Use power-operated ground spray equipment. On day of treatment, incorporate the insecticide into 4 inches of soil using a disc, field cultivator or equipment.

Insecticide may also be applied in tank mixtures with fertilizer solutions and/or with Bladex¹, Sutan², Lasso³, Dual⁴, and Atrazine herbicides. Read and carefully follow all applicable directions, and precautions on labeling for the other used in combination with LORSBAN 4E.

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Preparation Treatment: Use LORSBAN 4E at the following application in sufficient water to ensure thorough treatment of plants:

rs 1/2 to 1 pint per acre;
chinch bugs, aphids 1 to 2 pints per acre;
nd southwestern

..... 1.5 to 2 pints per acre;
billbugs, lesser cornstalk
beetle adults 2 to 3 pints per acre.

Field counts indicate that pests are or may be a problem. For best billbug, chinch bug, and flea beetle control, apply with sufficient water to ensure a spray volume of 20 to 40 gallons per acre and 40 psi of spray equipment. On corn less than 6 inches tall, insecticide spray in a 9 to 12 inch wide band. On corn greater than 6 inches tall, apply the spray using drop nozzles directed to the base of the corn. When chinch bugs continue to immigrate to corn during period of under extreme pressure, a second of LORSBAN 4E may be needed.

For cutworm, armyworm, aphid, European and southwestern corn borer, grasshoppers, and lesser cornstalk borer control, 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 spray per acre. For cutworms, it is preferable to apply LORSBAN 4E 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 the spray and effectiveness will be reduced. If such conditions exist, shallow incorporation using a rotary hoe or other suitable equipment immediately before or soon after treatment may improve control. Consult your Agricultural Experiment Station or Extension Service specialist for additional information concerning cutworm control practices in your area. For first-generation European corn borer control, treat when 25 to 50 percent of the corn plants show pinhole feeding or leaf-feeding scars. Ground applications should be directed into the corn whorls. For second-generation European corn borer control, treat when field counts of egg masses indicate pests are or may become a problem. For southwestern corn borer control, treat when field counts of egg masses indicate pests are or may become a problem. A second application may be applied 10 to 14 days later, if needed due to reinfestation.

Restrictions: Do not apply within 35 days before harvest of grain. Do not apply more than a total of 15 pints of LORSBAN 4E per acre per season. Do not allow livestock to graze in treated areas nor harvest treated corn silage as feed for meat or dairy animals within 14 days after last treatment. Do not feed treated corn fodder to meat or dairy animals within 35 days after last treatment.

COTTON: Use LORSBAN 4E for control of the following pests in all states except Arizona and California at the dosages indicated:

Cotton fleahopper, plant bugs (Lygus, Miridae) 1/2 to 1 pint per acre;
Cotton aphid, fall armyworm, grasshoppers, spider mites, thrips, yellow-striped armyworm 1/2 to 1 pint per acre;
Beet armyworm, bollworms (Heliothis spp.), boll weevil, cutworms, pink bollworm, salt marsh caterpillar 1 1/2 to 2 pints per acre.

NOTE: The recommended dosage rate of 1/2 pint per acre will not achieve the high degree of control of the higher label rate, but will minimize the damage done by plant bugs and cotton fleahopper and allow the beneficial insects to survive, build up, and be available to aid in the control of bollworms infesting cotton.

Use LORSBAN 4E for control of the following pests in Arizona and California at the dosages indicated:

Armyworms, cotton aphid, cotton fleahopper, Lygus, salt marsh caterpillar, thrips 1 to 2 pints per acre;
Bollworms (Heliothis spp.), boll weevil, cutworms, pink bollworm 2 pints per acre.

NOTE: The 2 pint rate will aid in the suppression of cotton leafperforator and spider mites.

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 spray 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 3 to 5 days after initial treatment to control newly hatched nymphs.

For best results on bollworms, it is suggested that fields be scouted twice per week and treatments made when worms are 1/2 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	5/32	II
	6	7/16	III
	8	11/16	IV

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 avoid spray 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 vortices effect can be checked out by flying over a paper tape (adding machine paper) using water with or without soluble 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 fan 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.

LORSBAN 4E insecticide may also be used in tank mixtures in all states to control armyworms, bollworms (Heliothis spp.), boll weevil, cotton fleahopper, plant bugs (Lygus, Miridae), and spider mites as indicated in the following table.



TANK MIXTURE	RATE/ACRE
LORSBAN 4E plus Ambush ¹ 2E	1 to 2 pints plus 1/5 to 2/5 pint
LORSBAN 4E plus Pounce ² 3 2E	1 to 2 pints plus 1/8 to 1/4 pint
LORSBAN 4E plus Pydrin ³ 2 4E	1 to 2 pints plus 1/6 to 1/3 pint
LORSBAN 4E plus Bolstar ⁴ 6E	1/2 to 1 pint plus 2/3 to 1 1/3 pints
LORSBAN 4E plus methyl parathion ⁵ plus toxaphene ⁵	1 pint plus 1 lb a.i. plus 2 lb a.i.
LORSBAN 4E plus methyl parathion ⁵ plus EPN ⁵	1 pint plus 0.6 lb a.i. plus 0.6 lb a.i.

¹Trademark of ICI Americas Inc.

²Trademark of FMC Corporation.

³Trademark of Shell Oil Company.

⁴Trademark of Farbenfabriken Bayer GmbH Leverkusen.

⁵Use only emulsifiable formulations containing these active ingredients (a.i.).

Mix the tank mixture components in sufficient water to ensure thorough coverage of plants (at least 1 gallon of spray per acre) and apply using aerial spray equipment. Treat when field counts indicate damaging insect populations are developing or present. Re-treat as necessary to maintain control.

Restrictions: Make no applications of these tank mixtures closer to harvest than the longest pre-harvest interval shown for any of the products in the tank mixture. Do not allow livestock to graze in treated areas. Do not feed gin trash or treated forage to livestock. Workers entering the field within 48 hours after application should wear protective clothing.

GRAIN SORGHUM: Use LORSBAN 4E to control infestations of the Sorghum midge by application as a broadcast, foliar spray at the rate of 1/2 pint per acre. Mix the specified

dosage in enough water to ensure thorough coverage and apply using suitable aerial or ground spray equipment. Make the first application when 30 to 50 percent of the seed heads are in bloom and midge adults are present. A second and third treatment at 3-day intervals may be needed but do not exceed 3 applications. To avoid phytotoxicity, do not treat plants that are under extreme heat and drought stress.

Restrictions: The treated crop is not to be used for forage, fodder, hay or silage within 14 days after the last treatment. Do not treat sweet varieties of sorghum.

NECTARINES, 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.

ONIONS (dry bulb): Use LORSBAN 4E insecticide to control onion maggot by application as an in-furrow spray at seeding. Apply LORSBAN 4E at a rate of 1.1 fluid ounces per 1000 linear feet of row in an 18-inch row spacing. Use a minimum of 40 gallons of total slurry per acre. Incorporate to a depth of 1 to 2 inches.

Restrictions: For use on dry bulb onions only. Do not make more than one application per year. Based on available residue data, use of LORSBAN 4E on onions (dry bulb) is restricted to Idaho, Michigan, Minnesota, New Jersey, New York, Ohio, Oregon, Washington, and Wisconsin.

PEANUTS: Use LORSBAN 4E for control of the following pests at the dosages indicated:
Lesser cornstalk borer 2 to 4 pints per acre as a directed spray to the base of the plants in an 8 to 10 inch wide band;

GRAPES: Use LORSBAN 4E insecticide for control of grape root borer by application just before the pest emerges from the soil. Mix 4 1/2 pints of LORSBAN 4E with 100 gallons of water and apply 2 quarts of the diluted spray mixture to the soil surface on a 15-square foot area around the base of each vine. Do not allow spray to contact fruit or foliage.

Restrictions: Do not make more than one application per season or apply within 35 days before harvest. Based upon available residue data, the use of LORSBAN 4E on grapes is restricted to states East of the Rocky Mountains.

	RATE/ACRE
1 to 2 pints plus 1/5 to 2/5 pint	
1 to 2 pints plus 1/8 to 1/4 pint	
1 to 2 pints plus 1/6 to 1/3 pint	
1/2 to 1 pint plus 2/3 to 1 1/3 pints	
1 pint plus 1 lb a.i. plus 2 lb a.i.	
1 pint plus 0.6 lb a.i. plus 0.6 lb a.i.	

ICI Americas Inc
FMC Corporation
Shell Oil Company
Farbenfabriken Bayer GmbH Leverkusen
Available formulations containing these active ingredients:

Mix the required dosage in sufficient water to ensure thorough coverage of plants (at least 1 gallon of spray per acre) using aerial spray equipment. Treat when field counts indicate insect populations are developing or present. Re-treat as necessary to maintain control.

Do not make applications of these tank mixtures within the longest pre-harvest interval shown for the products in the tank mixture. Do not allow spray to contact livestock. Do not feed treated crops to livestock. Workers entering the field within 24 hours of application should wear protective clothing.

Use LORSBAN 4E to control infestations of corn rootworm by application as a broadcast, at the rate of 1/2 pint per acre. Mix the specified

dosage with 1 to 2 gallons of water to ensure thorough coverage and apply using aerial or ground spray equipment. Make applications when 30 to 50 percent of the seed heads and midge adults are present. A second and third application may be needed but do not exceed 3 applications. To avoid phytotoxicity, do not treat under extreme heat and drought stress.

The treated crop is not to be used for forage, silage within 14 days after the last treatment. Do not feed treated crops to livestock.

PEACHES: Use LORSBAN 4E insecticide for peach tree borers by application as a trunk spray when newly hatched borers enter the trees. Mix 3 LORSBAN 4E with 100 gallons of water and apply as a trunk spray to give uniform coverage of the trunk. Thoroughly wet all bark areas from ground level to top. Do not allow spray to contact fruit. Consult your local Agricultural Experiment Station or Extension Service for proper time to treat in your area.

Do not make applications of these tank mixtures within the longest pre-harvest interval shown for the products in the tank mixture. Do not allow spray to contact livestock. Do not feed treated crops to livestock. Workers entering the field within 24 hours of application should wear protective clothing.

Use LORSBAN 4E insecticide to control onion thrips by application as an in-furrow spray at the rate of 1/2 pint per acre. Apply in a minimum of 40 gallons of total drench per acre. Incorporate to 2 inches.

Do not use on direct seeded onions. Do not make applications of these tank mixtures within the longest pre-harvest interval shown for the products in the tank mixture. Do not allow spray to contact livestock. Do not feed treated crops to livestock. Workers entering the field within 24 hours of application should wear protective clothing.

Use LORSBAN 4E for control of the following insects on onions:

Onion thrips 2 to 4 pints per acre as a directed spray in a 6 to 10 inch wide band.

Armyworms, corn earworm, cutworms, leathoppers, miles, thrips 1 to 2 pints per acre (as a broadcast, foliar spray using ground or aerial equipment when field counts indicate damaging insect populations are developing or present).

Mix the required dosage in enough water to ensure thorough coverage.

LORSBAN 4E should not be tank mixed with pesticides, surfactants, or fertilizer formulations unless prior use has shown the combination noninjurious under your current conditions of use. Phytotoxicity may occur when LORSBAN 4E is applied to Florunner peanuts experiencing high temperature and drought stress.

Restrictions: Do not make more than one application per season as a directed spray. Directed and foliar sprays should not exceed 8 pints of LORSBAN 4E per acre or 4 pounds of chlorpyrifos (active ingredient) per acre per season. Do not harvest within 21 days after treatment. Do not feed treated peanut forage or hay to meat or dairy animals.

PEPPERMINT: Use LORSBAN 4E by application as a broadcast, foliar spray to control cutworms at the rate of 2 to 4 pints per acre and mint root borer at the rate of 4 pints per acre. Mix the specified dosage in water to give no less than 10 gallons of spray per acre and apply using ground spray equipment. For cutworm control, treat during May and June when field counts indicate damaging insect populations are developing or present. When larvae are less than 1/4 inch in length, use the 2 pint rate. When larvae are 1/4 inch or more in length, use the higher rate. Make only one application during the growing season. Do not apply within 30 days before harvest. For mint root borer control, apply post-harvest when field counts indicate damaging insect populations are developing or present. Follow treatment with approximately 1 acre inch of sprinkler irrigation immediately after application to incorporate the insecticide into the soil. Make only one post-harvest application per season.

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

Lesser cornstalk borer 4 pints per acre (at planting or postemergence in a 6 to 10 inch wide band followed by light incorporation); 2 pints per acre (at cracking in a 6 to 10 inch wide band followed by a second spray 5 days after the initial treatment);
Cutworms, European corn borer, corn earworm, southern green stink bug 2 pints per acre
Bean leaf beetle 1 to 2 pints per acre
Mexican bean beetle, armyworms 1 to 1 1/4 pints per acre
Velvetbean caterpillar, green cloverworm 1/2 to 1 pint per acre (as a broadcast, foliar spray using ground or aerial equipment when field counts indicate damaging insect populations are developing or present; re-treat as necessary to maintain control).

Mix the required dosage in enough water to ensure thorough coverage. For ground application, use at least 10 gallons of spray per acre.

Restrictions: Do not apply more than 6 pints of LORSBAN 4E per acre or 3 pounds of chlorpyrifos (active ingredient) per acre per season. Do not apply last treatment within 28 days before harvest. Do not apply last two treatments closer than 14 days apart. Do not allow livestock to graze in treated areas nor otherwise feed treated soybean forage to meat or dairy animals within 14 days after application. Do not feed straw from treated soybeans to meat or dairy animals within 28 days after application.

STRAWBERRIES: Use LORSBAN 4E insecticide by application as a broadcast foliar spray to control strawberry bud weevil at the rate of 1/2 pint per acre. Apply in a minimum of 40 gallons of spray per acre when buds first appear and 10 to 14 days later. Do not apply after berries start to form or when berries are present. LORSBAN 4E should not be tank mixed with pesticides, surfactants, or fertilizer formulations unless prior use has shown the combination noninjurious under

your current conditions of use. Phytotoxicity may occur when LORSBAN 4E is applied to strawberries experiencing high temperature and drought stress.

Restrictions: For pre-bloom use only. Do not make more than two applications per season or apply within 21 days before harvest.

SUNFLOWERS: Use LORSBAN 4E insecticide for control of the following pests at the dosage indicated by application in sufficient water to ensure thorough coverage of treated plants.

Cutworms 2 to 3 pints per acre.
Grasshoppers, stem weevil, and sunflower moth 1 pint per acre.

Apply as a broadcast spray using either aerial (fixed-wing or helicopter) or power-operated ground spray equipment when field counts indicate that pests are or may become a problem. For cutworm control, a second treatment may be made 7 to 10 days later, if needed. For stem weevil control, optimal treatment time is within 5 to 7 days after adult weevils begin to appear. For sunflower moth control, make first application during early 1 to 5 percent bloom stage. A second treatment may be made 7 days later, if needed.

Restrictions: Do not apply more than 9 pints of LORSBAN 4E per acre per season. Do not apply within 42 days before harvest. Do not allow livestock to graze in treated areas.

SWEET POTATOES: Use LORSBAN 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.

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 Cutworms	1/2 to 1 pint
Pears	San Jose scale Cutworms Pear psylla adults	
Plums, Prunes	San Jose scale Mealy plum aphid Cutworms Peach twig borer	
Almonds, Peaches, Nectarines	San Jose scale Peach twig borer Cutworms	

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.

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

VEGETABLES: Use LORSBAN 4E to control root maggots on the following crops at the dosages indicated:

Cauliflower	16 to 24 fl oz per 1000 linear feet of row;
Broccoli, Brussels Sprouts, Cabbage, Chinese Cabbage, Turnips	16 to 27.5 fl oz per 1000 linear feet of row

For direct seeded crops apply the specified dosage in a water-based spray as a 4-inch wide band over the row at planting time, behind the planter shoe and in front of the press wheel to achieve shallow incorporation. Apply in a minimum of 40 gallons of total spray per acre.

For transplanted crops, apply LORSBAN 4E as a water-based spray directed to the base of the plants immediately after setting. Use a minimum of 40 gallons of total spray per acre. Do not apply as a foliage application.

Restrictions: Do not apply more than 2 pints of LORSBAN 4E to cauliflower planted in 40-inch rows. Use proportional amounts for other row spacings not to exceed 4 pints of LORSBAN 4E per acre. Do not apply more than 2.6 pints of LORSBAN 4E per acre to broccoli, Brussels sprouts, cabbage, Chinese cabbage, and turnips planted in 40-inch rows or more than 4 1/2 pints of LORSBAN 4E per acre to these crops in 20-inch rows (or two rows per bed). Use proportional amounts for other row spacings not to exceed 4 1/2 pints of LORSBAN 4E per acre. Do not make more than one application per season or apply within 30 days before harvest.

Radishes 10 fl oz per 1000 linear feet of row

Apply the specified dosage as a water-based drench in the seed furrows with the seed at planting time. Use a minimum of 40 gallons of total drench per acre.

Restrictions: Do not apply more than 5 1/2 pints of LORSBAN 4E per acre or make more than one application per season.

Rutabagas 16 to 33 fl oz per 1000 linear feet of row

Apply the specified dosage in a water-based spray as a 4-inch wide band over the row at planting time, behind the planter shoe and in front of the press wheel to achieve shallow incorporation. Use a minimum of 40 gallons of total spray per acre.

Restrictions: Do not apply more than 4 1/2 pints of LORSBAN 4E per acre or make more than one application per season. Do not use rutabaga tops for food or feed purposes.

To avoid phytotoxicity in vegetable crops, do not mix with other pesticide products or treat plants that are under extreme heat and drought stress.

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.

U.S. Patent No. 3,244,586

On determinate soybeans do not apply more than one application after pod set.