



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

**COTTON**

Crops	Insects	Rate* (lb. to Acres)	Further Use Instructions	Days to Harvest
Cotton	Thrips	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Plant Bugs	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Whitefly	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Armyworms	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Cabbage Looper	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Bollworm	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Tobacco Budworm	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Stink Bug	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	
Cotton	Pink Bollworm	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.	

\*Where a rate is given, use the higher rate when larger field insects are present, or where insect pressure exists.

**COTTON TANK MIXES**

Crops	Insects	Amount ORTHENE 90 S + LORSBAN 4E Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA, AZ)	Armyworms, Bollworm, Cabbage Looper, Cotton Aphid, Cutworms, Fleahopper, Grasshoppers, Pink Bollworm, Plant Bugs, (Lygus, Mirids), Salt Marsh Caterpillar, Thrips, Tobacco Budworm, Whitefly	4.44 oz. to 17.77 oz. + 2 pts.	Do not feed grain trash to livestock or allow animals to graze on treated areas.	21

Crops	Insects	Amount ORTHENE 90 S + PYDRIN 24 EC Per Acre	Further Use Instructions	Days to Harvest
Cotton (Except CA, AZ)	Tobacco Budworm	2.94 oz. + 2.5 fl. oz.	Begin applications when eggs or insects appear and apply as needed to maintain control. Apply in 3 to 5 gals. of water with adequate equipment or 10 to 25 gals. of water with ground equipment. Do not feed grain trash to livestock or allow animals to graze on treated areas. Do not apply more than 1 lb. of ORTHENE 90 S per acre per season. Do not apply more than 1 lb. of PYDRIN 24 EC per acre per season.	21

**COTTON TANK MIXES FOR TREATMENT (EXCEPT CA AND THE FLOODLANDS OF TEXAS)**

Crop	Insects	Rate* (lb. to Acres)	Further Use Instructions
Cotton	Thrips	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Plant Bugs	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Whitefly	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Armyworms	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Cabbage Looper	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Bollworm	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Tobacco Budworm	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Stink Bug	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.
Cotton	Pink Bollworm	1 lb. to 2 lbs. per acre	Apply in water at 10 to 20 gals. per acre. Do not spray if rain is expected within 24 hours.

**Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.**  
**NOTE:** This product is sold by weight and package is full when packed, but due to fluffy nature this material is inclined to settle.

**STORAGE AND DISPOSAL**

**PROHIBITIONS**  
Do not contaminate water, food or feed by storage, disposal or equipment.  
Open dumping is prohibited.

**STORAGE**  
Keep pesticide in original container.  
Do not put concentrate or product in food or drink container.  
Store in cool, dry place. Protect from excessive heat.  
Do not contaminate food or feedstuffs.  
Do not store or transport near feed or food.  
For help with any spill, leak, fire or exposure involving this material, call day or night (415) 233-3737.

**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 into application equipment. Do not reuse container.  
Dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning.  
If burned, stay out of smoke.

**IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.**

**LIMITED WARRANTY:** 1. Valent U.S.A. Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. Valent does not make nor authorizes any agent or representative to make, any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.

2. Critical and unforeseeable factors beyond Valent's control prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labeling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Valent under 1 above) resulting from handling, storage, and use of the product.

3. Precautions stated on the labeling should be followed to avoid hazardous exposure to the product.

LORSBAN® - Reg. TM of Dow Chemical Company for chlorpyrifos insecticide.  
PYDRIN® - Reg. TM of E. I. du Pont de Nemours & Co., Inc. for fenvalerate insecticide.  
ORTHENE® - Reg. TM of Chevron Chemical Company for acephate insecticide.

ORTHENE 90 S  
EPA Reg. No. 59639-33  
Submitted: September 18, 1989

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS & DOMESTIC ANIMALS

##### CAUTION

Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist. Wash hands thoroughly after handling.

##### STATEMENT OF PRACTICAL TREATMENT

If swallowed drink 1 or 2 glasses of water (or milk) and induce vomiting by touching the back of the throat with finger. If possible contact a physician, Poison Control Center, or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest emergency treatment center. In case of eye contact, wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor. For skin contact, wash skin with plenty of soap and water. If inhaled, remove person from exposure area.

**Note to Physicians:** Emergency Information - call (415) 233-3737. Acephate is a cholinesterase inhibitor. If signs of cholinesterase inhibition appear, atropine is antidotal. 2-PAM may also be used in conjunction with atropine but should not be used alone.

##### WORKER SAFETY

USE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT DURING MIXING/LOADING, APPLICATION, REPAIR, AND CLEANING OF MIXING, LOADING, AND APPLICATION EQUIPMENT, DISPOSAL OF THE PESTICIDE, AND [areas for which a reentry interval has been established] EARLY REENTRY INTO TREATED AREAS: chemical-resistant gloves, long sleeved shirt, long legged pants, shoes, and socks. If overhead exposure is likely, such as during flagging, wear a hood or wide brimmed hat. **WORK SAFETY:** Always wash hands, face, and arms with soap and water before smoking, eating, drinking or toileting. **AFTERWORK:** Before removing gloves, wash them with soap and water. Take off all work clothes and shoes. Shower using soap and water. Wear only clean clothes when leaving job. Do not wear contaminated clothing. Personal and protective clothing worn during work must be laundered separately from household articles. Store protective clothing separately from personal clothing. Clean or launder protective clothing after each use.

##### ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds. Do not apply directly to water or wetlands (swamps, bogs, marshes and potholes). Cover or soil-incorporate spills. 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 treatment area.

##### DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

##### REENTRY STATEMENT

Keep all unprotected persons out of operating area, or vicinity where there may be drift.

Reentry into treated areas is prohibited for 24 hours after the end of application unless the protective clothing specified elsewhere on this label is worn. Certain states may require more restrictive reentry intervals, consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.



# ORTHENE® 90 S

## (INSECTICIDE)

##### Active Ingredient

\*Acephate (O,S-Dimethyl acetylphosphoramidothioate)

##### Inert Ingredients

\*ORTHENE®, Acephate U.S. Pat. No. 3,716,600

##### By Wt

90%

10%

##### NOT REVIEWED

In Accordance with PR Notice 88-01

Based on Draft Labeling Dated 6/13/57

KEEP OUT OF REACH OF CHILDREN

### CAUTION

SEE SIDE PANEL FOR ADDITIONAL  
PRECAUTIONARY STATEMENTS

## NET WEIGHT 20 POUNDS

Manufactured for  
**Valent U.S.A. Corporation** © 1989  
Walnut Creek CA 94596-8025  
Product 5593 Made in U.S.A.  
R Form 256-A  
EPA Reg. No. 59639-33-AA

# **DIRECTIONS**

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

## **COTTON**

Crops	Insects	Label Rate* (Lbs. to Acres) (Formulated)	Further Use Instructions	Days to Harvest
Cotton	Thrips	1 lb. to 5 Acres (3.2 oz. per acre)	Apply in water at 3 to 10 gals spray per acre by air (minimum 5 gals / acre in CA, AZ) or 10 to 25 gals. spray per acre by ground	21
	Plantbugs (Lygus)	1 lb. to 4 Acres up to 1 lb. to 1 Acre (0.25 to 1 lb. per acre)	Apply when eggs or insects first appear. Repeat as necessary to maintain control	
		1 lb. to 2 Acres up to 1 lb. to 1 Acre (CA, AZ) (0.5 lb. to 1 lb. per acre)	Lygus — Use higher rate for lygus adults that have migrated into cotton	
	Fleahopper	1 lb. to 4 Acres (0.25 lb. per acre)	Beltworm and Tobacco Bud- worm — Early season light infes- tation use 1 lb. to 2 acres Mid and late season moderate to severe infestations use 1 lb. to 1 acre	
	Cotton Aphid Whitefly	1 lb. to 2 Acres up to 1 lb. to 1 Acre (0.5 lb. to 1 lb. per acre)	Apply when eggs appear and repeat at a 3 to 7 day interval	
	Armyworms Cabbage Looper	1 lb. to 1 Acre (1 lb. per acre)	Pink Bollworm — Apply when insects appear and repeat at a 5 to 7 day spray interval	
	Bollworm Tobacco Budworm	1 lb. to 2 Acres up to 1 lb. to 1 Acre (East of Rockies) (0.5 lb. to 1 lb. per acre)	Do not feed gin trash to live- stock or allow animals to graze on treated areas	
		1 lb. to 1 Acre (CA, AZ) (1 lb. per acre)		
	Sunkbugs (CA, AZ)	1 lb. to 1.25 Acres (0.8 lb. per acre)		
	Pink Bollworm (CA, AZ)	1 lb. to 1 Acre (1 lb. per acre)		

\*Where a rate is given, use the higher rate when large (late instar) larvae are present or where heavy insect pressure exists.

## **COTTON TANK MIXES**

Crops	Insects	Amount ORTHENE 90 S + LORSBAN® 4E Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA, AZ)	Armyworms Bollworm Cabbage Looper Cotton Aphid Cutworms Fleahopper Grasshoppers Pink Bollworm Plant Bugs (Lygus, Mirids) Salt Marsh Caterpillar Thrips Tobacco Budworm Whitefly	4.44 oz. to 17.77 oz. + 1 to 2 pts	Do not feed gin trash or treated forage to livestock. Do not allow livestock to graze on treated areas	21

Crops	Insects	Amount ORTHENE 90 S + PYDRIN® 2.4LC Per Acre	Further Use Instructions	Days to Harvest
Cotton (Except CA, AZ)	Tobacco Budworm	8.53 oz. + 2.5 fl. oz.	Begin applications when eggs or insects appear and apply as needed to maintain control  Apply in 3 to 5 gals. of water with aerial equipment or in 10 to 25 gals. of water with ground equipment  Do not feed gin trash to livestock or allow animals to graze treated areas  Do not apply more than two (2) lbs. active ingredient of PYDRIN to a crop in a growing season  All applicable directions, restric- tions and precautions on the EPA registered labels are to be followed	21

## **COTTON SEED HOPPER BOX TREATMENT (EXCEPT AZ, CA AND THE BLACK LANDS OF TEXAS)**

Crop	Insects	Amount ORTHENE 90 S Per Acre	Further Use Instructions
Cotton	Thrips Cotton Aphids Black 'Greasy' Cutworm	2.5 to 3.25 oz	Apply 2.5 to 3.25 oz. ORTHENE 90 S per acre in the planter box as a dry powder. Even coverage is required for acceptable insect control. To obtain even coverage, fill planter box 1/4 full of seed, add the proper amount of ORTHENE 90 S and mix thoroughly with a stick. Add the remainder of the seed to the planter box and the additional required amount of ORTHENE 90 S followed by thorough mixing. For improved mixing, premix seed with ORTHENE 90 S in a suitable container, then pour treated seed into planter box. Loss of ORTHENE 90 S will occur if air planters are used. Plants grown from improperly covered seed will not exhibit insect control. Do not use treated seed for food or feed purposes or process for oil

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## **STORAGE AND DISPOSAL**

### **PROHIBITIONS**

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

Open dumping is prohibited.

### **STORAGE**

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Store in cool, dry place. Protect from excessive heat.

Do not contaminate food or foodstuffs.

Do not store or transport near feed or food.

For help with any spill, leak, fire or exposure involving this material, call day or night (415) 233-3737.

### **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 into application equipment. Do not reuse container.

Dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning.

If burned, stay out of smoke.

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2. Critical and unforeseeable factors beyond Valent's control prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labeling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Valent under 1 above) resulting from handling, storage, and use of the product.

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