



ORTHENE[®]

75 S Soluble Powder

(INSECTICIDE)

Active Ingredients
 Acephate 75 S Dimethyl acetylphosphorothioate
 75%
 Inert Ingredients
 25%
 U.S. Pat. No. 3,914,417

By Wt.

75%

NOTIFICATION
 LABEL NOT RECALLED
 PER FIF NOTIC 60-1
 DATE MAY 6 1991

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

Manufactured for Valent U.S.A. Corporation © 1991
 Walnut Creek, CA 94596-0025 Form 114-1 Made in U.S.A. EPA Reg. No. 55629-26 AA

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. Do not allow children or pets to come into contact with treated areas until insects have died.

STATEMENT OF PREVENTIVE MEASURES: 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 action and product container to the nearest emergency treatment center. In case of eye contact, wash eyes with fresh water for 15 minutes. If spray or dust on clothes, 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 800-457-2022. Acephate is a cholinesterase inhibitor. Signs of cholinesterase inhibition appear shortly after exposure. 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 AND DISposal OF THE PESTICIDE AND AREAS TO WHICH A REENTRY INTERVAL HAS BEEN ESTABLISHED: EARLY REENTRY INTO TREATED AREAS: chemically resistant gloves, long-sleeved shirt, long-legged pants, shoes, and socks if overhead exposure is likely, such as during topping, pruning, or other work requiring use of ladders. Always wash hands, face and arms with soap and water before smoking, eating, drinking or sleeping. AFTER WORK: 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. Applications may adversely affect birds in range of treated areas. Do not apply directly to water or wetlands, swamps, bogs, marshes and potholes. Cover or incorporate spots.

If 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 in pollinating crops or weeds if bees are visiting the 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 AND PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

REENTRY STATEMENT

All unprotected persons out of operating areas or vicinity where there may be drift for 1. An Agricultural crop, commercially grown ornamentals, commercial seed farms, and in greenhouses reentry into treated areas is prohibited for 24 hours after the end of application, unless the protective clothing specified in section 4 is worn. For other uses, including golf courses and other non-agricultural areas, do not enter treated areas without protective clothing until spray has dried.

Certain states may require more restrictive reentry intervals. Contact 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.

DIRECTIONS

Apply to cotton by aerial or irrigation systems. Do not apply by chemigation to any other crop, or to any crop using any other type of irrigation system.

Table of Equivalents

Amount of ORTHENE 75 S Soluble Powder	1.13 lbs	1 lb	2.30	4.02	7.07
Amount Active Contained	1 lb	34.0	1.0	1.5	10.0

COTTON

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cotton	Thrips	2.02 to 4.02	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
	Planthopper	1.13 to 1.13 lbs		
	Leafhopper	1.13 to 1.13 lbs		
	Cotton Aphid	1.13 to 1.13 lbs	Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
	Armyworms	1.13 to 1.13 lbs	Do not feed on trash to livestock or allow animals to graze on treated areas.	
	Cabbage Looper	1.13 to 1.13 lbs		
	Budworm	1.13 to 1.13 lbs		
	Blackworm	1.13 to 1.13 lbs		
	Adults	1.13 to 1.13 lbs		
	Larvae	1.13 to 1.13 lbs		
	Eggs	1.13 to 1.13 lbs		
	DEADMATCH™	1.13 to 1.13 lbs		
	Stink bug	1.13 to 1.13 lbs		
	CA AZ	1.13 to 1.13 lbs		
	Pink Bollworm	1.13 to 1.13 lbs		
	CA AZ	1.13 to 1.13 lbs		

COTTON TARIFF CODE

Crop	Insects	Amount ORTHENE 75 S + LACHTHANE 40 Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA AZ)	Armyworms	1.13 to 1.13 lbs	Do not feed on trash or treated forage to livestock. Do not allow livestock to graze on treated areas.	21
	Budworm	1.13 to 1.13 lbs		
	Cabbage Looper	1.13 to 1.13 lbs		
	Cotton Aphid	1.13 to 1.13 lbs		
	Cutworms	1.13 to 1.13 lbs		
	Leafhopper	1.13 to 1.13 lbs		
	Grasshoppers	1.13 to 1.13 lbs		
	Pink Bollworm	1.13 to 1.13 lbs		
	Planthopper	1.13 to 1.13 lbs		
	Lygids	1.13 to 1.13 lbs		
	Sp. Marsh	1.13 to 1.13 lbs		
	Caterpillar	1.13 to 1.13 lbs		
	Thrips	1.13 to 1.13 lbs		
	Stink bug	1.13 to 1.13 lbs		
	Budworm	1.13 to 1.13 lbs		
	Whitefly	1.13 to 1.13 lbs		

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22-1

Do not spray
Eggs: When spray particles
fall in direct contact with
eggs, hatching larvae may be con-
trolled by their coming and
crawling from their egg coating.
Pink Bollworm - Apply when
larvae appear and repeat at a
5 to 7 day spray interval.

COTTON BOLL MITE

Crops	Insects	Amount ORTHENE 75 S + LORANOL 45 Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA AZ)	Armstrong Bollworm Cotton Lopper Cotton Aphid Cottonworm Fleahopper Grasshopper Pink Bollworm Planthopper (Lygus, Miris) Saw Marsh Caterpillar Thrips Tobacco Budworm Wormfly	1.3 to 1 1/3 lbs 1 to 2 pts	Do not feed on trash or treated forage to livestock. Do not allow livestock to graze on treated areas.	21

Crops	Insects	Amount ORTHENE 75 S + PYDRIN 2.4 EC Per Acre	Further Use Instructions	Days to Harvest
Cotton (Except CA AZ)	Tobacco Budworm	2.3 lb 2 2/3 pt	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 on trash to livestock or allow animals to graze treated areas. Do not apply more than 12 lbs active ingredient of PYDRIN to a crop in a growing season. All applicable directions, restric- tions and precautions on the EPA registered label are to be followed.	21

**COTTON SEED MOTTLE DISEASE TREATMENT
(EXCEPT AZ, CA AND THE BLACK LANDS OF TEXAS)**

Crop	Insects	Amount ORTHENE 75 S Soluble Powder Per Acre	Further Use Instructions
Cotton	Thrips Cotton Aphids Black (Green) Cottonworm	3 to 4 oz	Apply 3 to 4 oz ORTHENE 75 S Soluble Powder 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 with seed and the proper amount of ORTHENE 75 S Soluble Powder and mix thoroughly with a stick. Add the remaining of the seed to the planter box and the additional required amount of ORTHENE 75 S Soluble Powder followed by thorough mixing. For unground seed premix seed with ORTHENE 75 S Soluble Powder in a suitable container then pour mixed seed into planter box. Loss of ORTHENE 75 S Soluble Powder will occur if air planters are used. Plants grown from improperly coated seed will not obtain insect control. Do not use treated seed for food or feed purposes or process for oil.

COTTON SEED MOTTLE APPLICATION

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions												
Cotton	Aphids Thrips	0.5 to 1.0 lb active	Refer to the ORTHENE 75 S conversion chart before making product application. ORTHENE 75 S CONVERSION CHART (0.5 AL TO OZ FORMULATED PRODUCT) <table><tr><td>0.5</td><td>10.7</td></tr><tr><td>0.6</td><td>12.8</td></tr><tr><td>0.7</td><td>14.9</td></tr><tr><td>0.8</td><td>17.0</td></tr><tr><td>0.9</td><td>19.2</td></tr><tr><td>1.0</td><td>21.3</td></tr></table> Apply 0.5 to 1.0 lb active ORTHENE 75 S in 3 to 5 gals. of water per acre as an in-furrow spray. NOTE: For the Blacklands of Texas use only the 1.0 lb active ORTHENE 75 S rate (21.3 oz formulated product per acre). ORTHENE 75 S can be mixed with fungicides that are approved in furrows for disease control. For fan nozzles used for in-furrow applica- tion should be set so that the fan spray pattern is aligned with the row to insure good spray deposition in the seed furrow. Cone type nozzles may not provide a spray pattern that insures maximum spray deposi- tion in the seed furrow and should be a- voided. Spray systems that employ metal or plastic tubing for delivery of spray solution into the seed furrow should have tubing securely fastened to the fan spray applicator and should be checked frequently to insure that the tubing is properly positioned to deposit spray solution into the seed furrow.	0.5	10.7	0.6	12.8	0.7	14.9	0.8	17.0	0.9	19.2	1.0	21.3
0.5	10.7														
0.6	12.8														
0.7	14.9														
0.8	17.0														
0.9	19.2														
1.0	21.3														

FIELD CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Peppermint Spearmint	Aphis looper Cottonworm Aphids	1 to 1.5 lb	Apply in water at 5 to 10 gals. spray per acre by air or 20 to 100 gals. spray per acre by ground. Apply when eggs or insects first appear. Make one repeat application if necessary to maintain control. Do not apply more than 2 1/2 lbs per acre per season.	14
Soybeans	Grasshoppers Soybean Apterous Cotton Lopper Cottonworm Velvetbean Caterpillar Bean leaf beetle Mexican bean beetle Silver Spotted Skipper (except CA) Stink bugs Armyworms Threac armed aphid looper Corn Earworm	1 to 1.5 lb 1 to 1 1/2 lbs 1 lb 1 to 1 1/2 lbs	Apply in water at 2 to 10 gals. spray per acre by air or 10 to 50 gals. spray per acre by ground. Repeat as necessary to maintain control. Do not feed or cut weeds for hay or forage.	14
Peanuts	Grasshoppers Thrips Corn earworm Fall armyworm Leafhopper Loppers Velvetbean Caterpillar	1 to 1 1/2 lb 1 to 1 lb 1 to 1 1/2 lbs	Apply in water at 10 to 50 gals. spray per acre by ground or in 5 to 10 gals. spray per acre by air. Begin applications when insects first appear and repeat as needed to maintain control. Do not feed treated forage or hay to livestock or allow animals to graze treated areas.	14 to 21 days

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Crops	Insects	Absent OUTLINE P.S. Per Acre	Further Use Insecticides	Days to Harvest
Tomatoes	Colorado potato beetle Colorado potato worm Colorado potato rootworm Colorado potato leaf miner Colorado potato beetle Colorado potato rootworm Colorado potato leaf miner		Apply 1/2 pint of 1% DDT solution per acre Use a minimum of 1/2 pint of 1% DDT solution per acre by air use system Water to give 100% coverage with ground or sprayer equipment None Do not spray from start of bloom until full development	45

[illegible][illegible]

NOTE: Consideration should be maintained in the chemical's application during the entire period of insecticide degradation. The product should be applied with a positive displacement pump in the manner stated on the label and in the instructions.

Application of more than label recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.

Crops	Insects	Ambush Per Acre	Further Use Instructions	Days to Harvest
Beans and Lima Beans Dry and Succulent	Grasshoppers Aphids Bean leaf beetle Mexican cutworm Green stink bug Colorado beetle Colorado potato beetle Mexican bean beetle Soybean beetle Peanutworms Cucumber beetle Flea beetle Armyworm	0.2-0.5 2-3 1-3	Apply in water at a minimum of 25-30 gals spray per acre by hand or 100 gals spray per acre by ground Repeat after 10 days if insects first appear. Repeat at 10 day intervals as long as insects persist. Repeat at 10 day intervals. Do not feed trimmings to livestock	10-14 days before beans succulent
Brussels Sprouts	Green peach aphid Cabbage looper Diamondback moth Peppered cutworm Cabbage moth	1-3 1-2 1-2	Apply in water at 10-150 gals spray per acre by hand or a minimum of 25 gals spray per acre by ground Use the 10 day interval between applications if insects persist Begin applications when insects appear first Repeat application as needed Repeat application at 10 day intervals as long as insects persist Sprouts Do not feed trimmings to livestock or animals to graze on treated areas	10-14 days
Carrots	Carrot root fly Flea beetle Cabbage looper Cabbage moth	1-2 1-2	Apply in water at 10-150 gals spray per acre by hand or a minimum of 25 gals spray per acre by ground Apply when eggs or insects appear and repeat at 10 day intervals as long as insects persist Trim plants, continued for 10 days Do not use trimmings for livestock feed	10-14 days
Head lettuce Cabbage Cauliflower	Aphid Cabbage looper Cabbage moth Cabbage root fly Cabbage root maggot	1-2 1-2 1-2 1-2	Apply in water at 10-150 gals spray per acre by hand or 100 gals spray per acre by ground Apply as soon as insects appear and repeat at 10 day intervals as long as insects persist Do not apply after first head begins to form to top of head or get mature Repeat application at 10 day intervals through November in desert areas of AZ and CA Do not feed trimmings to livestock or animals to graze on treated areas	10-14 days
Pepper, hot and sweet	Aphid Cabbage looper Cabbage moth Cabbage root fly Cabbage root maggot	1-2 1-2 1-2 1-2	For use in MA, western, Eastern States and Puerto Rico only Apply in water at 10-150 gals spray per acre by hand or 100 gals spray per acre by ground Repeat at 10 day intervals as necessary Do not feed trimmings to livestock	10-14 days
Spinach	Grasshoppers Cabbage looper Cabbage moth Cabbage root fly Cabbage root maggot	1-2 1-2 1-2 1-2	Apply in water at a minimum of 25-30 gals spray per acre by hand or 100 gals spray per acre by ground Repeat at 10 day intervals as necessary Do not feed trimmings to livestock	10-14 days
Tomatoes	Grasshoppers Cabbage looper Cabbage moth Cabbage root fly Cabbage root maggot	1-2 1-2 1-2 1-2	Apply when eggs or insects appear. Repeat as necessary until insects have been reduced below economic numbers	10-14 days

Case	Inventory	Amount collected to the date	Further due installments	Days to pay
		10000000	10000000	10000000

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Beet and Flea Grasshopper Cabbage looper	1 to 3 lbs	Apply when eggs or insects appear and repeat at 3 to 10 day intervals as necessary to maintain control.	Spring Summer and Fall
Heat lettuce spread Tobacco	1 to 3 lbs	Apply in water at 5 to 10 gals spray per acre by air or 10 to 60 gals spray per acre broadcast by ground.	Spring Summer and Fall
Cabbage looper Armyworms	1 to 3 lbs	Apply as necessary to maintain desired control. Do not apply more than 6 to 7 lbs per acre per season.	Spring Summer and Fall
Pepper, tomato type	1 to 3 lbs	Do not apply after first head begins to form to crops which germinate from mid September through November in desert areas of AZ and CA.	Spring Summer and Fall
Aphids	1 to 3 lbs	For use in Midwestern Eastern States and Puerto Rico only.	Spring Summer and Fall
Grasshoppers Cabbage worm Green peach aphid Tobacco hornworm	1 to 3 lbs	Apply in water at a minimum of 3 gals spray per acre by air or 25 to 150 gals spray per acre by ground.	Spring Summer and Fall
European corn borer	1 to 3 lbs	Apply when eggs or insects appear. Repeat as necessary until insects have been reduced below economic numbers.	Spring Summer and Fall

PASTURE RANGELAND WASTELAND

Crops	Insects	Amount ORTHINE 75 S Per Acre	Further Use Instructions	Days to Harvest
Pasture Rangeland Wasteland	Grasshoppers Mormon Crickets Black Grass Bugs	5 to 15 lb 0.094 to 0.125 lb active ingredient	Apply in water at a minimum of 1/2 gal spray per acre by air or 10 to 20 gals spray per acre by ground. Use the higher rate in thicker vegetation or on larger insects. An approved drift retardant additive may be added to aid in controlling drift and reducing evaporation of spray.	14 days
	Imported fire ants	Mound Treatment — Dry Method Evenly distribute 1 to 2 spoons over the mound. Drench Method Mix 1 gal in 5 gal of water. Apply 1 gal of mix to each mound area by sprinkling the mound until it is wet and treat a four foot 3 meter circle around the mound.	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest. Grass in treated area may be killed. Treat maximum of 11 mounds per acre. Do not treat mound more than once per season. Do not apply when lactating dairy cattle are present. Cull or pasture or feed hay 10 days after application. Remove meat animals from treated areas at least 7 days before slaughter if they were present at application or grazed treated areas within 21 days after application.	14 days

SPECIALTY USES

Crops	Insects	Amount ORTHINE 75 S Per Acre	Further Use Instructions
Tomato beans cucumbers eggplants peppers potatoes squash strawberries watermelons	Grasshoppers	5 to 15 lb 0.094 to 0.125 lb active ingredient	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest. Grass in treated area may be killed. Treat maximum of 11 mounds per acre. Do not treat mound more than once per season. Do not apply when lactating dairy cattle are present. Cull or pasture or feed hay 10 days after application. Remove meat animals from treated areas at least 7 days before slaughter if they were present at application or grazed treated areas within 21 days after application.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage, disposal or careless use. 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 store or transport near feed or food.
For help with any spill, leak, fire or exposure, including this material, call day or night 800 457 1222.

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 container into application equipment. Do not reuse con-
tainer. Dispose of empty container in a sanitary landfill or by incineration, as followed by State and local authorities
by burning. If burned, stay out of smoke.

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
not 100% full.

IMPORTANT INFORMATION: READ BEFORE USING PRODUCT
LIMITED WARRANTY: 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 direc-
tions on the labeling. Valent does not make nor authorize 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 unavoidable 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 in
other plants or crops. Such risks occur even though the product is used, and if used under average conditions for the
uses stated on the labeling and even though other directions are followed. Buyer and user acknowledge and assume
all risks and liability except those assumed by Valent under the 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.



Req # 59639-26 PM-16

ORTHENE®

75 S Soluble Powder

(INSECTICIDE)

Active Ingredient:
*Acophate (O,S-Dimethyl acetylphosphorothioate)
Inert Ingredients
*ORTHENE® Acophate
U.S. Pat. No. 3,914,417

By Wt.

75%
25%

LABEL NOTICE

DATE MAY 6 1991

KEEP OUT OF REACH OF CHILDREN**CAUTION**

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

Manufactured for Valent U.S.A. Corporation © 1991
Walnut Creek, CA 94596 8025 Form 114-1 Made in U.S.A. EPA Reg. No. 59639-26 AA

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. Do not allow children or pets to come into contact with treated areas until sprays have dried.

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. If on 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. In case of skin contact, wash skin with plenty of soap and water. If inhaled, remove person from exposure area.

Harm to Humans: Emergency Information - call 800-457-2022. Acophate 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 AND 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. **AFTER WORK:** 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. Applications may adversely affect birds in range and treatment areas. 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 the 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 AND PAMPHLET. 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 areas or vicinity where there may be drift.

For use on agricultural crops, commercially grown ornamentals, commercial sod farms, and in greenhouses, reentry into treated areas is prohibited for 24 hours after the end of application unless the protective clothing specified elsewhere in this label is worn. For other uses, including golf courses and other non agricultural areas, do not enter treated areas without protective clothing until sprays have dried.

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.

DIRECTIONS

Apply to croplands only by sprayer-irrigation systems. Do not apply by chemigation to any other crop, or this crop using any other type of irrigation system.

Table of Equivalents

Amount of ORTHENE 75 S Soluble Powder	1 1/3 lbs	1 lb	2/3 lb	4 oz	2 oz
Amount Active Contained	1 lb	3/4 lb	1/2 lb	1/3 lb	1/6 lb

COTTON

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cotton	Thrips	2 oz to 4 oz	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)	1/4 to 1 1/2 lbs (CA, AZ)		
	Fleahopper	1/4 lb	Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
	Cotton Aphid (Woolly)	1/4 to 1 1/2 lbs		
	Armyworms	1 1/4 lbs		
	Cabbage looper		Do not feed on trash to livestock or allow animals to graze on	

Borers Tobacco Buds Adults Larvae	1/2 to 1 1/4 lbs (East of Rockies) 1 1/2 lbs (CA, AZ)	OR SHOW APPLICATOR TO GRAZE UP TREATED AREAS
Eggs/ DEADMATCH™		Eggs - Use higher rate for eggs adults that have migrated into cotton
Stinkbugs (CA, AZ)	1 lb	Borers and Tobacco Buds - Early season light infestation use 1/2 lb per acre Mid and late season moderate to severe infestations use 1 to 1 1/2 lbs per acre. Apply when eggs appear and repeat at 3 to 7 day spray intervals
Pink Bollworm (CA, AZ)	1 1/2 lbs	Adults/Larvae: Moths are con- trolled when they come in direct contact with spray particles during application. Moths are most likely to occur when application is made late in the evenings during periods of peak activity.
		Eggs: When spray particles come in direct contact with eggs, hatching larvae may be con- trolled as they consume and emerge from their egg casing.
		Pink Bollworm - Apply when insects appear and repeat at a 5 to 7 day spray interval

COTTON TANK MIXES

Crops	Insects	Amount ORTHENE 75 S + LORSBANK® 4E Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA, AZ)	Armyworms Bollworm Cabbage Looper Cotton Aphid Cutworms Flea-hopper Grasshoppers Pink Bollworm Planthopper Lygids, Mirids Salt Marsh Stinkbugs Tobacco Buds Whitefly	1.3 to 1.1 3 lbs 1 to 2 qt	Do not feed gin trash or treated forage to livestock. Do not allow livestock to graze on treated areas	21

Crops	Insects	Amount ORTHENE 75 S + PYDRIN® 2.4 EC Per Acre	Further Use Instructions	Days to Harvest
Cotton (Except CA, AZ)	Tobacco Buds	2.3 lb 2.23 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 BEET TREATMENT (EXCEPT AZ, CA AND THE BLACK LANDS OF TEXAS)

Crop	Insects	Amount ORTHENE 75 S Soluble Powder Per Acre	Further Use Instructions
Cotton	Three Cotton Aphids Black (Greasy) Cutworm	3 to 4 oz	Apply 3 to 4 oz ORTHENE 75 S Soluble Powder 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 1/2 full of seed, add the proper amount of ORTHENE 75 S Soluble Powder and mix thoroughly with a stick. Add the remainder of the seed to the planter box and the additional required amount of ORTHENE 75 S Soluble Powder followed by thorough mixing. For improved mixing premix seed with ORTHENE 75 S Soluble Powder in a suitable container, then pour mixed seed into planter box. Loss of ORTHENE 75 S Soluble Powder will occur if the planters are used. Plants grown from improperly covered seed will not exhibit insect control. Do not use washed seed for load or "hot" seedbeds or process for oil.

COTTON IN-PLANTER APPLICATION

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions
Cotton	Aphids Three	0.5 to 1.0 lb active	Refer to the ORTHENE 75 S conversion chart before making product application

...treat seed with ORTHENE 75 S Soluble Powder in a suitable container, then pour treated seed into planter box. Loss of ORTHENE 75 S Soluble Powder 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.

COTTON IN-FURROW APPLICATION

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions												
Cotton	Aphids Thrips	0.5 to 1.0 lb. active	Refer to the ORTHENE 75 S conversion chart before making product application. ORTHENE 75 S CONVERSION CHART LBS. A.I. TO OZ. FORMULATED PRODUCT <table> <tbody> <tr><td>0.5</td><td>10.7</td></tr> <tr><td>0.6</td><td>12.8</td></tr> <tr><td>0.7</td><td>14.9</td></tr> <tr><td>0.8</td><td>17.0</td></tr> <tr><td>0.9</td><td>19.2</td></tr> <tr><td>1.0</td><td>21.3</td></tr> </tbody> </table> Apply 0.5 to 1.0 lb. active ORTHENE 75 S in 3 to 5 gals. of water per acre as an in-furrow spray. NOTE: For the Blacklands of Texas use only the 1.0 lb. active ORTHENE 75 S rate (21.3 oz. formulated product per acre). ORTHENE 75 S can be mixed with fungicides that are sprayed in-furrow for disease control. Flat-fan nozzles used for in-furrow application should be set so that the fanned spray pattern is aligned with the row to insure good spray deposition in the seed furrow. Cone type nozzles may not provide a spray pattern that insures maximum spray deposition in the seed furrow, and should be avoided. Spray systems that employ metal or plastic tubing for delivery of spray solution into the seed furrow should have tubing securely fastened to the furrow opener and should be checked frequently to insure that the tubing is properly positioned to deposit spray solution into the seed furrow.	0.5	10.7	0.6	12.8	0.7	14.9	0.8	17.0	0.9	19.2	1.0	21.3
0.5	10.7														
0.6	12.8														
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0.8	17.0														
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1.0	21.3														

FIELD CROPS

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Peppermint Sagebrush	Aphis Cutworms Aphids	1 1/4 lbs	Apply in water at 5 to 10 gals spray per acre by air or 20 to 100 gals spray per acre by ground. Apply when eggs or insects first appear. Make one repeat application, if necessary, to maintain control. Do not apply more than 2 1/2 lbs per acre per season.	14
Soybeans	Grasshoppers Soybean looper Cabbage looper Green Cloverworm Velvetbean caterpillar Bean leaf beetle Mexican bean beetle Silver Spotted Skipper (except CA) Stink bugs Armyworms Three-cornered aphis hopper Corn Earworm	1/2 to 1 1/2 lb 1/2 to 1 1/2 lbs 1 lb 1 to 1 1/2 lbs	Apply in water at 2 to 10 gals spray per acre by air or 10 to 50 gals spray per acre by ground. Repeat as necessary to maintain control. Do not graze or cut vines for hay or forage.	14
Peanuts	Grasshoppers Thrips Corn earworm Fall armyworm Leafhoppers Loopers Velvetbean caterpillar	1/2 to 1 1/2 lb 1/2 to 1 lb 1 to 1 1/2 lbs	Apply in water at 10 to 50 gals spray per acre by ground or in 5 to 10 gals spray per acre by air. Begin applications when insects first appear and repeat as needed to maintain control. Do not feed treated forage or hay to livestock or allow animals to graze treated areas.	14 (if digging)

FRUIT CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cranberries	Cranberry Blossom Worm Gypsy Moth False Armyworm Fireworms Spanworms Sparganothis	1.1-3 lbs	Apply in water by air, ground or with sprinklers. Use a minimum of 2 gals. spray per acre by air. Use sufficient water to give thorough coverage with ground or sprinkler equipment. Note: Limit to one application per growing season. Do not apply from start of bloom until all berries set.	90

SPRINKLER IRRIGATION APPLICATION TO CRANBERRIES

This product may only be applied through sprinkler irrigation systems including center pivot, lateral move, end row, side wheel, jet, travelers, big gun, solid set or hand move. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label prescribed safety devices for public water supplies are in place.

A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effective, designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Solid Set Systems: Apply specified dosage for the entire length of the irrigation period or for a 30 to 60 minute period at the end of a regular irrigation set or as a 30 to 60 minute injection as a separate application not associated with a regular irrigation. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining pesticide, a dye indicator may be injected into the lines to mark the end of the application period. See **NOTE**.

Center Pivot Systems: Inject the specified dosage per acre continuously for one complete revolution of the system. See **NOTE**.

NOTE: Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Inject the product with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

Application of more than label recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.

VEGETABLE CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Beans and Lima Beans (Dry and Succulent forms)	Fleahoppers	1.3 to 2.3 lbs	Apply in water at a minimum of 2 gals. spray per acre by air or 20 to 100 gals. spray per acre by ground.	3 (disappears or dry beans)
	Grasshoppers	2.3 to 11.3 lbs		
	Aphids		Apply when eggs or insects first appear. Repeat at 7 to 10 day intervals as necessary. Severe insect infestations use higher rates.	Quima beans succulent form
	Bean leaf beetle			
	Bean leafroller			
	Cabbage looper			
	Cutworms		Do not feed treated vines to livestock.	
	Green			
	Clovenworm			
	Leafhoppers			
Brussels Sprouts Cauliflower	Mexican bean beetle		Apply in water at 25 to 100 gals. spray per acre by ground or a minimum of 5 gals. spray per acre by air.	1
	Plantbugs			
	Lygids		Use the high rate when heavy infestations of aphids are present.	
	Soybean looper			
	Thrips			
	Whitefly			
	Armyworms	1 to 11.3 lbs	Begin applications when insects or eggs first appear.	
	Corn earworm			
	European corn borer			
Celery	Green peach aphid	2.3 to 11.3 lbs	Repeat application as needed. Do not apply more than 8 lbs. per acre per season to Brussels Sprouts.	7
	Cabbage looper	1.3 lbs		
	Diamondback moth		Do not feed trimmings to livestock or allow animals to graze in treated areas.	
	Imported cabbage worm			
			Apply in water at 50 to 100 gals. spray per acre by ground or a minimum of 5 gals. per acre by air.	
	Beet and Fall armyworms	1.3 lbs	Apply when eggs or insects appear and repeat at 3 to 10 day intervals as necessary to maintain control.	
	Cabbage looper			

			Trim plants (tops removed) before shipment or use	
			Do not use trimming (tops) for food or feed	
Head Lettuce Crisphead Type (Only)	Aster Leathopper Green peach aphid	2.3 to 11.3 lbs	Apply in water at 5 to 10 gals spray per acre by air or 10 to 60 gals spray per acre broadcast by ground	21. Spring, summer and early fall crops in all areas and winter crops in Florida and Texas rate for crops in Arizona, winter crops in Arizona and California
	Cabbage looper Armyworms	1.1 to 3 lbs	Apply as necessary to maintain desired control. Do not apply more than 6.23 lbs per acre per season Do not apply after first head begins to form to crops which germinate from mid September through November in desert areas of AZ and CA Do not feed trimmings to livestock or allow animals to graze on treated areas	
Peppers (non Bell type)	Aphids	1.3 lb	For use in Midwestern, Eastern States and Puerto Rico only Apply in water at 40 to 150 gals spray per acre with ground equipment Repeat at 7 to 10 day intervals as necessary Do not exceed 7 applications per season	
Sweet peppers (Bell type)	Grasshoppers	2.3 to 23 lb	Apply in water at a minimum of 3 gals spray per acre by air or 25 to 150 gals spray per acre by ground	
	Cabbage looper Green peach aphid tobacco hornworm	2.3 to 11.3 lbs	Apply when eggs or insects appear. Repeat as necessary until insects have been reduced below economic numbers	
	European corn borer	1 to 1.3 lbs		

PASTURE RANGELAND WASTELAND

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Pasture Range and Wasteland	Grasshoppers Armyworms Barn swallows Bugs	1.1 to 1.6 lb 1.694 to 0.125 Active Red ant	Apply in water at a minimum of 3 gals spray per acre by air or 20 gals spray per acre by ground. Use the higher rate in thicker vegetation or on larger insects. An approved drift retardant additive may be added to aid in controlling drift and reducing evaporation of aerial sprays. Do not make more than one application per season. Do not apply when lactating dairy cattle are present. Do not pasture feed treated hay for 21 days after application. Remove meat animals from treated areas at least one day before slaughter if they were present at application or grazed treated areas within 21 days after application.	
	Imported fire ants	Mound Treatment — Dry Method Apply 1 lb to 2 lbs/bush over the mound. Grout Method Mix 1 lb of water with 1 gal of water. Apply 1 gal of mixture to each mound area by pouring the mixture into the hole and treat a 4' x 4' foot area around the mound.	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest. Grass in treated area may be injured. Treat maximum of 10 mounds per acre. Do not treat mound more than once per season. Do not apply when lactating dairy cattle are present. Do not pasture feed hay to lactating dairy cattle within 21 days after application. Remove meat animals from treated areas at least 1 day before slaughter if they were present at application or grazed treated areas within 21 days after application.	

SPECIALTY USES

Crops	Insects	Amount ORTHENE 75S Per Acre	Further Use Instructions
Apples Berries Citrus Grapes Peaches Pears Plums Raspberries Strawberries Tangerines	Apple Aphid Beech Blossom Blossom Blossom Blossom Blossom Blossom Blossom Blossom	1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	For further information on specialty uses, consult the Orthene 75S label. For more information on Orthene 75S, contact your local Orthene distributor or call 1-800-451-2022.

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 800-451-2022.

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

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. For due to its nature this material is inclined to settle.

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.

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