

(A) 	United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	☐ Registration ☐ Amendment ☐ Other	OPP Identifier Number
	Application for Pesticide:		167249

Section I

1. Company/Product Number 59639-26-AA	2. EPA Product Manager Robert A. Forrest	3. Proposed Classification ☐ None ☐ Restricted
4. Company/Product (Name) ORTHENE 75 S Soluble Powder	PM# 14	
5. Name and Address of Applicant (Include ZIP Code) Valent U.S.A. Corporation 1333 N California Blvd. Walnut Creek, CA 94596 ☐ Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. 59639-26-AA Product Name ORTHENE 75 S Soluble Powder	

Section II

☐ Amendment - Explain below	☐ Final printed labels in response to Agency letter dated _____
☐ Resubmission in response to Agency letter dated _____	☐ "Me Too" Application.
☒ Notification - Explain below.	☐ Other - explain below.

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Explanation: Use additional page(s) if necessary. (For section I and Section II.)

We are submitting five copies of finished labeling complying with PR Notice 93-3 inserting "For terrestrial uses", under the Environmental Hazards section of the label.

NOTIFICATION
LABEL NOT REVIEWED
PER PR NOTICE 93-3

DATE: 1/29/93

Section III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging ☐ Yes* ☐ No	Unit Packaging ☐ Yes ☐ No	Water Soluble Packaging ☐ Yes ☐ No		☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify) _____	
* Certification must be submitted.		(If "Yes," Unit Package wgt. No. per container)	(If "Yes," Package wgt. No. per container)		
3. Location of Net Contents Information ☐ Label ☐ Container		4. Size(s) of Retail Container		5. Location of Label Directions ☐ On Label ☐ On Labeling accompanying product	
6. Manner in Which Label Is Affixed To Product ☐ Lithograph ☐ Paper glued ☐ Stenciled				☐ Other (_____)	

Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Mark Herbst		Title Registration Assistant		Telephone No. (include Area Code) (510) 256-2745	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment, both under applicable law.					6. Date Application Received (Stamped)
2. Signature 		3. Title Registration Assistant			
4. Typed Name Mark Herbst		5. Date June 17, 1993			



ORTHENE® 75 S Soluble Powder (INSECTICIDE)

**KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE BELOW FOR ADDITIONAL
PRECAUTIONARY STATEMENTS.**

Active Ingredient
*Acephate (O S-Dimethyl acetyl-
phosphoramidothioate)
Inert Ingredients
*ORTHENE® Acephate
U.S. Pat. No. 3,914,417

By Wt
75%
25%

Manufactured by
Valent U.S.A. Corporation
Walnut Creek, CA 94596-8025
R Form 254 O Made in U.S.A.
EPA Reg. No. 59639-26-AA

ORTHENE KILLS FIRE ANTS

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. Poison Control Center or emergency center before inducing the vomit. 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 1-800-892-0099. Acephate is a cholinesterase inhibitor. If signs of cholinesterase inhibition appear, atropine is antidote. 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 rangeland treatment areas. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. 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 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.

Airmen 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 cranberries only by sprinkler 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 1/2 lbs	1 lb	1/2 lb	4 oz	2 oz
Amount Active Contained	1 lb	1/2 lb	1/4 lb	1/8 lb	1/16 lb

COTTON

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cotton	Thrips	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	
	Planthugs (Lygus)	1/2 to 1 1/2 lbs (CA, AZ)		
	Leafhopper	1 lb	Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
	Cotton Aphid (Whitefly)	1/2 to 1 lb		
	Armyworms Cabbage Looper	1 1/2 lbs	Do not feed gin trash to livestock or allow animals to graze on treated areas.	
	Bollworm Tobacco Budworm Adults Larvae	1/2 to 1 1/2 lbs (East of Rockies) 1 1/2 lbs (CA, AZ)	Lygus - Use higher rate for lygus adults that have migrated into cotton.	
	Eggs DEADMATCH™		Bollworm and Tobacco Budworm - 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 interval.	
	Stinkbugs (CA, AZ)	1 lb		
	Pink Bollworm (CA, AZ)	1 1/2 lbs	Adults/Larvae - Moths are controlled when they come in direct contact with spray particles during application. Moth kill is 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 controlled as they consume and emerge from their egg casing.	

COTTON TANK MIXES

Crop	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 Leafhopper Grasshoppers Pink Bollworm Plant Bugs (Lygus) Mirids Salt Marsh Caterpillar Thrips Tobacco Budworm Whitefly	1 1/2 to 1 3/4 lbs 1 to 2 pts	Do not feed gin trash or treated forage to livestock. Do not allow livestock to graze on treated areas.	21

Crop	Insects	Amount ORTHENE 75 S + PYDRIN® 24 EC Per Acre	Further Use Instructions	Days to Harvest
Cotton (except CA, AZ)	Tobacco Budworm	2.3 lb 2 2/3 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, restrictions 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 75 S Soluble Powder Per Acre	Further Use Instructions
Cotton	Thrips Cotton Aphids Black (Green) 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 with 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 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.

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COTTON IN-FURROW APPLICATION

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions												
Cotton	Aphids Thrips Black/Greasy Cutworm except CA	0.5 to 1.0 lb. active	Refer to the ORTHENE 75 S Powders on chart before making product application. ORTHENE 75 S CONVERSION CHART <u>LBS. A. TO OZ. FORMULATED PRODUCT</u> <table><tr><td>0.4</td><td>13.1</td></tr><tr><td>0.6</td><td>19.7</td></tr><tr><td>0.7</td><td>22.8</td></tr><tr><td>0.8</td><td>25.9</td></tr><tr><td>0.9</td><td>29.0</td></tr><tr><td>1.0</td><td>32.1</td></tr></table>	0.4	13.1	0.6	19.7	0.7	22.8	0.8	25.9	0.9	29.0	1.0	32.1
0.4	13.1														
0.6	19.7														
0.7	22.8														
0.8	25.9														
0.9	29.0														
1.0	32.1														
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.															

FIELD CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Peppermint Spearmint	Alfalfa looper Cutworms Aphids	1 1/2 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. Do not use spent mint hay for feed for dairy animals.	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 Threecornered alfalfa hopper Corn Earworm	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. 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
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)

TOBACCO TRANSPLANT WATER APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions
Tobacco	Flea Beetle Green Peach Aphid Tobacco Aphid Cutworms Tobacco Thrips	1 lb	Provides control of early season flea beetles, green peach aphids, tobacco aphids, and cutworms for approximately 3 to 4 weeks after transplanting. For later season control of these insects, apply a foliar spray of ORTHENE 75 S Soluble Powder. Apply in a minimum of 100 gals. of transplant water per acre. Do not apply more than 1 lb ORTHENE 75 S Soluble Powder per acre as a transplant water application as some phytotoxicity may occur.

TOBACCO FOLIAR APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Tobacco	Grasshoppers Flea Beetle Green Peach Aphid Flea Beetle Hornworm Tobacco Thrips Tobacco Aphid Vegetable Weevils Stinkbugs Budworm Cabbage Looper Cutworm	1 to 1 1/2 1 to 1 1/2 1 to 1 1/2 1 to 1 1/2 1 to 1 1/2 1 to 1 1/2 1 to 1 1/2 1 to 1 1/2 1 to 1 1/2 1 to 1 1/2	Apply in 10 to 50 gals. water per acre with ground equipment or a minimum of 3 gals. per acre by air. Apply on a 7 day schedule or as needed. Do not re-enter sprayed areas until the spray deposit has dried.	

TOBACCO PLANT BED APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions
Tobacco Bed Treatment	Flea Beetle Green Peach Aphid Tobacco Aphid Cutworm	1 lb	Apply to foliage at the equivalent of 1 tablespoon in 1 gal. of water per every 1,000 sq. ft. of bed. Apply evenly to insure thorough coverage.

GREENHOUSE APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions
Tobacco	Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	1 lb	Apply to foliage at the equivalent of 1 tablespoon in 3 gals. water per every 1,000 sq. ft. of bed. Apply evenly to insure thorough coverage. NOTE: Floated water should be disposed of in the transplanted field through the transplant water or through foliar spray.

TOBACCO SOIL APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 75 S	Further Use Instructions	Days to Harvest
Tobacco	Imported Fire Ants	Mound Treatment: Dry Method: Evenly distribute 1 to 2 teaspoons over the mound. Drench Method: Mix 1 oz in 5 gals of water. Apply 1 gal of mix to each mound area by sprinkling the mound until it is wet and treat a four (4) foot diameter 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. Treat maximum of 13 mounds per acre. Do not treat more than once per season.	3

FRUIT CROPS

Crop	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 to 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, and low side (wheel) roll 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 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 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) effectively 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.

1/2-10

(Continued)

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Pasture, Honey and Waste and	Larvae and Adults	Mound Treatment: Dry Method Evenly apply 1.5 lb./acre of Orthene granules over the mound area.	Do not graze or mow within 10 days after application. If cattle are grazed, remove them from treated areas within 10 days. Apply granules under cover of grass or other ground cover. Scatter granules evenly and lightly mix into deep water if needed.	
		Drench Method Mix 1 gal. of water with 1 lb. of Orthene granules in each mound area by sprinkling the mound until it is wet and treat a four ft. foot diameter circle around the mound.	Grazing on treated areas will begin 10 days later. Treat maximum of 13 mounds per acre, but do not treat more than once per season. Do not apply when lactating dairy cattle are present. Do not graze or feed grass or grass hay to dairy animals. 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.	

Crop		Amount ORTHENE 75 S Per Acre	Further Use Instructions
Non Crop Areas	Grasshoppers	10 25 lb. active ingredient	For early, first season application to grasshoppers in field borders, fence rows, roadsides, ditchbanks, and borrow pits. Apply 1 to 5 gals. of water by air, or 10 to 20 gals. of water with ground equipment. Use the higher volumes when spraying heavier foliage. Do not graze or feed vegetation cut from treated areas.

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions
Non-Crop Areas	Imported Fire Ants	Mound Treatment— Dry Method Evenly distribute 1 to 2 teaspoons over the mound Drach Method Mix 1 qt. in 5 gals of water. Apply 1 gal. of mix to each mound area by sprinkling the mound until it is wet and treat a four (4) foot diameter 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 injured. Do not treat mound more than once per season.

Plants	Insects	Amount ORTHENE 75 S Per 100 Gals	Time of Application	Recommended Application
Container Grown Nursery Stock	Black vine Weevil Strawberry Root Weevil	1 lb 16 oz	Application should be made by mid September for green house stock and by mid October for out door stock. Consult your local county extension agent for information on the identification and control of root weevils onamentals.	Apply the specified amount of ORTHENE 75 S Soluble Powder per 100 gals. of solution so as to thoroughly drench the root system.
Arbor vitae Alseas Camelia Rhododan dron Roses viburnum Yew				
	Imported Fire Ants	1 lb 16 oz	Apply as needed to control the pest.	

Preparation of ORTHENE Sprs Mix using a 16 oz Measuring Cup

Label Recommendation ORTHENE in 100 Gals. Water	Equivalent ORTHENE in 20 Gals. Water*	Equivalent ORTHENE in 1 Gal. Water (tsp. Gal.)
1 lb.	2 1/2 oz.	1 1/2 tsp.
2 1/2 lb.	6 1/4 oz.	3 1/2 tsp.
5 lb.	12 1/2 oz.	7 1/2 tsp.
10 lbs.	25 oz.	15 tsp.

* See 50% measuring cup.

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**COMMERCIAL TURFGRASS LAWNS AND OTHER RECREATIONAL TURFGRASS AREAS
DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS DO NOT FEED TREATED GRASS TO LIVESTOCK**

Plant	Insects	Amount ORTHENE 75 S Per 1000 Sq. Ft.	Time of Application	Recommended Application
Turfgrass (Residential & Commercial)	Fawn Armworm Yellow-Striped Armworm Southern Armworm	1 to 12 oz. (1 to 10.3 lbs per acre)	As the insects appear. A repeat application at 7 week intervals may be necessary.	Apply the specified amount of ORTHENE 75 S Soluble Powder per 1000 sq. ft. Use a minimum of 5 gals. water per 1000 sq. ft. to obtain good coverage.
	Cutworm	12 to 24 oz. (3 to 6 lbs per acre)		
	Crunch Bugs	1 to 24 oz. (3 to 6 lbs per acre)	Apply as needed to adult population on or before down to 10 to 14 days.	Apply the specified amount of ORTHENE 75 S Soluble Powder per 1000 sq. ft. Use 1 to 15 gals. water per 1000 sq. ft. to obtain good coverage.
	Fleas	12 to 24 oz.	Apply as needed for knockdown (7 to 10 days) only of existing adult populations.	
	Sod Webworm (Crambe spp.)	1 to 10 oz. (1 to 2.5 lbs per acre)	As sod webworms begin to appear, use the higher amount when quick knockdown is needed or with heavy infestations. Repeat application may be necessary. Do not repeat at more than 1 week intervals.	
	Leafhopper	1 oz. (2 1/2 lbs per acre)	As the leafhoppers begin to appear. A repeat application at 1 week intervals may be necessary.	
	Mole Crickets (Except CA)	10 to 19 oz. (2 5/8 to 5 1/8 lbs per acre)	As mole crickets begin to appear for knockdown of existing populations more than one application may be required throughout the growing season. For heavy infestations, use the higher dosage rate.	Apply the specified amount of ORTHENE 75 S Soluble Powder per 1000 sq. ft. Use 1 to 15 gals. water per 1000 sq. ft. to obtain good coverage. Apply during late afternoon or early evening hours and after an irrigation. Do not irrigate after application. The use of a lemon fragrance substance in the spray mix may enhance control by acting as a flushing agent and thus provide increased mole cricket contact with the ORTHENE 75 S Soluble Powder. The following lemon-scented products have been shown to be effective flushing agents: Lemon Joy, Lemon Palmolive, and Mighty Myrr Products Manufacturing, Inc. Pure Lemon Fragrance. The use rate for these lemon-scented products is 2 to 6 teaspoons per gallon of water for small total mix volumes or 6 fl. oz. per 50 gals. of water for large total mix volumes.
	Greenbug (Schizaphis graminum) Grasshoppers	1 oz. (1 1/2 lbs per acre)	Apply when insects or their damage first appears. Repeat as necessary. Application is not to be repeated at more than 1 week intervals.	Apply the specified amount of ORTHENE 75 S Soluble Powder. Use 4 gals. of water per 1000 sq. ft. to obtain good coverage. Do not mow turfgrass for at least 24 hours after application.
	Cutworm Flea Beetle Southern Armworm Yellow-Striped Armworm	10 to 19 oz. (2 7/8 to 5 1/8 lbs per acre)	As the insects appear. Repeat at 2 week intervals as necessary.	Apply the specified amount of ORTHENE 75 S per 1000 sq. ft. Use a minimum of 15 gals. of water per 1000 sq. ft. to obtain good coverage.

Plant	Insects	Amount ORTHENE 75 S	Time of Application	Recommended Application
Turfglass	Imported Fire Ants	Mound Treatment— Dry Method Evenly distrib- ute 1 to 2 tea- spoons over the mound Drench Method Mix 1 qt. in 5 gals of water. Apply 1 gal. of mix to each mound area by sprinkling the mound until it is wet and treat a four (4) foot diameter 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	Apply the specified amount of ORTHENE 75 S Soluble Powder as directed Grass in treated areas may be injured Do not treat mound more than once per season

OUTDOOR WASP AND PERIMETER SPRAY

Location	Insects	Amount ORTHENE 75 S Per Gallon	Time of Application	Recommended Application
Indoor Wasp and Perimeter Spray	Wasps	1/2 to 1 lb per 100 gals	As wasps appear in the day as wasps are generally active during these times	Apply specified amount of ORTHENE 75 S Soluble Powder per each gallon of water used. Apply as a spot treatment in the nest, nest entrance and surrounding areas where the wasps are active.
Indoor Wasp and Perimeter Spray	Wasps	1/2 to 1 lb per 100 gals	As the insects appear	Apply specified amount of ORTHENE 75 S Soluble Powder per each gallon of water used.
Indoor Wasp and Perimeter Spray	Wasps	1/2 to 1 lb per 100 gals	As the insects appear	Apply to a band of soil 6 to 10 feet adjacent to the structure and in a height of 1 to 3 feet on the foundation where pests may be active or may find entrance. Also apply as a residual spray or with a paint brush to sur- faces of buildings, window frames, shutters, entryways, screens, eaves, patios, garages, carports, around garage areas and other areas where these pests congregate.

OUTDOOR FLORAL CROPS AND GROUND COVERS

Plants	Insects	Amount ORTHENE 75 S Per 100 Gals	Time of Application	Recommended Application
Daisies Jahiras Easter Lily Gladiolus Gypsophila Pachy- sandra Peony Roses Sedum Statice Straw flower Yarrow Zinnia	Aphids Thrips Lygids	1/2 to 1 lb per 100 gals	As insects begin to appear. Repeat applications may be necessary.	Apply the specified amount of ORTHENE 75 S in 100 gals. water with a hydraulic sprayer as a full coverage spray. Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties. Test on a few plants to determine varietal susceptibility.
Roses Boston Ivy	Japanese Beetle	1/2 to 1 lb per 100 gals	As the Japanese Beetles begin to appear. Repeat applications at 2 week intervals may be necessary.	

GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS

Plant	Insects	Amount ORTHENE 75 S Per 100 Gals	Time of Application	Recommended Application
Roses	Leafrollers	1/2 to 1 lb per 100 gals	As leafrollers begin to appear. Use the higher amount when the large larvae are present.	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Foliage Plants Orchids Anthuriums Cacti Poinsettia	Aphids Mealybugs Thrips Whiteflies	1/2 to 1 lb per 100 gals	As aphids begin to appear.	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray. The addition of a wetting agent may be required on difficult to wet foliage.
	Mealybugs Thrips Whiteflies	1/2 to 1 lb per 100 gals	As the insects begin to appear. A repeat application at a 2 week interval may be necessary for control of mealybugs and whiteflies.	
	Scallop Crawlers	1/2 to 1 lb per 100 gals	As crawlers begin to appear. Repeat applications at a 2 week interval may be necessary where there is continuous crawler production.	Caution: Phytotoxicity has occurred on the following foliage plants: <i>Blechnum gibbum</i> , <i>Cissus antarctica</i> , <i>Ficus triangularis</i> , <i>Fritillaria verschaffelii</i> , <i>Maranta arundinacea</i> , <i>Persea caroliniana</i> , <i>Rachytachya ulmifolia</i> , <i>Peperomia aurea</i> , <i>Polypodium aureum</i> , <i>Polystichum Pteris ensiformis</i> , <i>Polystichum Pteris ensiformis</i> , <i>Polystichum Pteris ensiformis</i> . Before treating large plantings, spray only a few plants and observe 2 weeks for varietal phytotoxicity. Application of ORTHENE 75 S Soluble Powder on Poinsettias after plant forma- tion may result in phytotoxicity on certain varieties.
Sweet Potato Whiteflies Except CA and NY	Whiteflies	1/2 to 1 lb per 100 gals plus TAME 24 EC Spray 10-15 oz per 100 gals	Apply when insects first appear. If a population is well established, make one application of the tank mix and follow 5 to 7 days later with TAME alone at 16 oz per 100 gals. See TAME label for instructions.	For sweet potato whitefly control apply the specified amounts of ORTHENE 75 S Soluble Powder plus TAME 24 EC Spray as a tank mix at a volume necessary to obtain good coverage. Follow the TAME label for specific instruc- tions on the alternation of TAME plus ORTHENE and TAME alone and the rotation instructions to avoid potential resistance.
Roses Carnations Chrysanthemums	Aphids Thrips	1/2 to 1 lb per 100 gals	As aphids begin to appear.	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Aphids Thrips	1/2 to 1 lb per 100 gals	As thrips begin to appear or at the light flower bud stage. Repeat applications may be necessary.	Do not apply more often than once every 28 days to Carnations and Chrysanthemums.
	Aphids Thrips	1/2 to 1 lb per 100 gals	As thrips begin to appear or at the light flower bud stage. Repeat applications may be necessary.	Caution: Phytotoxicity has occurred on the following Chrysanthemum varieties: Albatross, Brimble Jean, Daisie Gallant, Gem, Leberg, Pride, Showoff, Statesman, Tally Ho, Westward Ho, and Wild Honey. Before treating large Chrysanthemum plantings, spray only a few plants and observe two weeks for varietal phytotoxicity. Do not apply to Chrysanthemums and Roses with open flowers.

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.

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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 1-800-892-0099 or Chemtrec 1-800-424-9300.

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 container. Dispose of empty container 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: 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 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 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.

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