

Reg # 59639-26

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07 AUG 1990

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Valent U.S.A. Corporation
1333 North California Boulevard
Walnut Creek, CA 94596-8025

Gentlemen:

Subject: Orthene 75S Soluble Powder
EPA Registration No. 59639-26
Your Amendment Dated July 9, 1990 for Cotton In-Furrow
Your Amendment Dated July 10, 1990 for Aster Leafhopper

The cotton in-furrow amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you submit five (5) copies of your final printed labeling incorporating the following correction before you release the product for shipment.

- Revise the application directions for the cotton in-furrow treatment to specify the amount to be applied per linear acre (13,068 linear feet of row) so that the label is consistent with the product labeling which you have cited to support this amendment.

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of this condition.

A stamped copy of the cotton in-furrow labeling is enclosed for your records.

56283;I;Mautz;LM-17;KENCO:08/02/90;08/31/90;de;EK;VO;DD

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

299

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The aster leafhopper amendment is acceptable and a stamped copy of the labeling is enclosed for your records.

Sincerely yours,



William H. Miller
Product Manager (16)
Insecticide-Rodenticide Branch
Registration Division (H7505C) *

Enclosures

COPY A
COTTON IN-FURROW APPLICATION

CROP	INSECTS	AMOUNT ORTHENE 75S PER ACRE	FURTHER USE INSTRUCTIONS												
Cotton	Aphids Thrips	0.5 to 1.0 lb. active	Refer to the Orthene 75S conversion chart before making product application. ORTHENE 75S CONVERSION CHART <u>LBS. A.I. TO OZ. FORMULATED PRODUCT</u> <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 75S 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 75S rate (21.3 oz. formulated product per acre.) ORTHENE 75S 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. <i>As corrected with COMMENTS in EPA Letter Dated:</i> AUG 07 1990 Under the Federal Insecticide, Fungicide, and Rodenticide Act, amended, for the pesticide registered under EPA Reg. No. 59639-26	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														



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ORTHENE[®]

75 S Soluble Powder

(INSECTICIDE)

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

Active ingredient
*Acetophate 10.5 Dimethyl acetyl
phosphorothioate
Inert ingredients
*ORTHENE[®] Acetophate
75 S Pst No. 3914-017

Net Wt.
15
25

Manufactured for
Valent U.S.A. Corporation 2, 1990
Valent Circle, CA 95050, Calif.
EPA Reg. No. C-15532 Made in U.S.A.
EPA Reg. No. 59629-26 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 spray has dried.

STATEMENT OF PRACTICAL TREATMENT

If swallowed, drink 1 or 2 glasses of water for fluid 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 plenty of 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.

Toxic to Fishes: Emergency information: Call 800 451 2022. Acetophate 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, REPAIR, AND CLEANING OF MIXING, LOADING AND APPLICATION EQUIPMENT AND DISPOSAL OF THE PESTICIDE: Areas for which a written protocol 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, chemical resistant bagging and a hood and a drummed hat. **WORK SAFETY:** Always wash hands, face and arms with soap and water before eating, drinking or smoking. **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 re-entering. Do not wear contaminated clothing. Personal protective clothing worn during work must be stored 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. Cover or sow incorporate spots. 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 an unprotected persons out of operating areas of mixers where there may be drift. Do not enter treated areas without protective clothing until spray has 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 crosshairs only by spray after irrigation systems. Do not apply by chlorination by any other crop or this crop using any other type of irrigation system.

Type of Equipment

Amount of OTHENE 75 S Soluble Powder	1	2	3	4	5	6	7	8	9	10
Amount of Water	0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0

COTTON

Crops	Season	Amount OTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cotton	Pre-bloom	2.0 to 4.0 oz	Apply in water at 3 to 10 gal spray per acre by air minimum 5 gal/acre in CA, AZ or 10 to 25 gal/acre by ground.	21
	Post-bloom	1.0 to 1.5 lbs	Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
	Pre-harvest	1.0 to 1.5 lbs	Do not feed gun trash to livestock or allow animals to graze on treated areas.	
	Post-harvest	1.0 to 1.5 lbs	Apply - Use higher rate for legume adults that have migrated into cotton.	
	Pre-harvest	1.0 to 1.5 lbs	Beddown - early season light application use 1.0 lb per acre and late season moderate to severe infestations use 1.5 to 2.0 lb per acre. Apply when eggs appear and repeat at 3 to 7 day spray interval.	
	Post-harvest	1.0 to 1.5 lbs	Post Beddown - Apply when insects appear and repeat at a 5 to 7 day spray interval.	
	Pre-harvest	1.0 to 1.5 lbs	Adults/Larvae - Adults are controlled when they come in direct contact with spray particles during application. High kill is most likely to occur when application is made late in the evening during periods of peak activity.	
	Post-harvest	1.0 to 1.5 lbs	Eggs - When spray particles come in direct contact with eggs hatching larvae may be controlled as they consume and emerge from their egg casing.	

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COTTON TARE BUDS

Crops	Season	Amount OTHENE 75 S + PYRETH 2.0 EC Per Acre	Further Use Instructions	Days to Harvest
Cotton	Pre-bloom	1.5 to 1.75 lbs	Do not feed gun trash - treated forage to livestock. Do not allow livestock to graze on treated areas.	21
	Post-bloom	1.5 to 1.75 lbs	Apply when eggs or insects appear and repeat as needed to maintain control.	
	Pre-harvest	1.5 to 1.75 lbs	Apply in 3 to 5 gal of water with spray equipment or in 10 to 25 gal of water with ground equipment.	

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cotton (Except CA AZ)	Tabacco Budworm	2.3 lb 2.23 R or	Begin applications when eggs or insects appear and apply as needed to maintain control. Apply in 3 to 5 gals. of water with a spray equipment or in 10 to 25 gals. of water with ground equipment. Do not feed on fresh to insects or other animals to graze treated areas. Do not apply more than 121 lbs. active ingredient of PYDRIN to a crop in a growing season. All applicable directions, restrictions and precautions on the EPA registered label are to be followed.	21

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

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cotton	Thrips Aphids Black (Greasy) Curculion	3 to 4 oz	Apply 3 to 4 oz ORTHENE 75 S Powder per acre in the soil before the seed is planted. Even coverage is essential. Do not exceed 100 lbs. of ORTHENE 75 S Powder per acre. 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 aromatic seed with ORTHENE 75 S Soluble Powder in a suitable container, then pour seed into planter box. Loss of ORTHENE 75 S Soluble Powder will occur if 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.	

FIELD CROPS

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Peppermint Sagebrush	Aphis Aphids Curculion	1 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 244 lbs. per acre per season.	14
Soybeans	Grasshoppers Soybean hopper Lubbug hopper Green Cloverworm Velvetbean Cutworm Bean leaf beetle Mexican bean beetle	1 to 1 1/2 lbs 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.	2
Peanuts	Grasshoppers Thrips Corn earworm Fall armyworm Leafhoppers Loppers Velvetbean Cutworm	1 to 1 1/2 lbs 1 to 1 1/2 lbs 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 other animals to graze treated areas.	14-21 (depending)

FRUIT CROPS

Crop	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cranberries	Cranberry Worm Spiny Mealy Aphid Pineapple Scale Sawfly Sawfly	1.13 lb	Apply in water by air, ground or with sprayers. Use a minimum of 2 gals. spray per acre by air. Use sufficient water to give thorough coverage with ground or sprayer equipment. Make 1 time to one application per growing season. Do not apply from start of bloom until all berries set.	10

SPRINKLER IRRIGATION APPLICATION TO CRANBERRIES
This product may only be applied through sprinkler irrigation systems including center pivot, lateral move, and row side, full-circle, and wheel line. 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 systems are in place.
A person knowledgeable of the chemical 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 appropriate to the application of the pesticide.
The pesticide injection point must contain a functional automatic shut-off check valve to prevent the flow of fluid back toward the injection point.
The pesticide injection point must also contain a functional, manually closed, automatic shut-off valve located on the intake side of the injection pump and connected to the system unobstructed to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
The operator must contain functional monitoring 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 flushed with a clean solvent.
Do not apply when wind speed favors drift beyond the area intended for treatment.
Solid Jet 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 water to flush the pesticide through all applicators before turning off irrigation water. To ensure the lines are flushed and free of remaining pesticide, a dry indicator may be injected into the lines to mark the end of the application period. See label.
Center Pivot Systems: Inject the specified dosage per acre continuously for one complete revolution of the system.
See label.
NOTE: Center pivot systems must be maintained in the closed or supply tank during the entire period of pesticide 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 reducing the amount from the area of effectiveness.

INSTANT CHIPS

Crops	Insects	Amount Diluted 75:5 Per Acre	Further Use Instructions	Days to Harvest
Beans and peas in pods (all types)	Colorado potato beetles cabbageworms cutworms European cornborer greenworms leafhoppers Mexican bean beetle podborers sawflies skeletonizing caterpillars thrips tomato worms	2 to 2.3 lb	Apply in water at a minimum of 2 gals spray per acre by air or 20 to 30 gals spray per acre by ground Apply when eggs or insects first appear. Repeat at 7 to 10 day intervals as necessary. Severe insect infestations use higher rates. Do not feed treated vines to livestock	4 to 6 weeks 1 to 2 weeks
Beans in pods and flowers	Colorado potato beetles cabbageworms cutworms European cornborer	1 to 1.3 lb	Apply in water at 25 to 150 gals spray per acre by ground or a minimum of 5 gals spray per acre by air Use the high rate when heavy infestations of aphids are present Begin applications when insects or eggs first appear Repeat application as needed Do not apply more than 8 lbs per acre per season to Brussels sprouts Do not feed trimmings to livestock or show animals to graze in treated areas	6 to 8 weeks
Corn	Colorado potato beetles cabbageworms cutworms European cornborer	2 to 2.3 lb	Apply in water at 50 to 150 gals spray per acre by ground or a minimum of 5 gals per acre by air Apply when eggs or insects appear. Repeat at 7 to 10 day intervals as necessary to maintain control Trim plants (tops removed) before shipment or use Do not use trimmings for food or feed	2 to 3 weeks
Head lettuce and leaf lettuce	Colorado potato beetles cabbageworms cutworms European cornborer	2 to 2.3 lb	Apply in water at 50 to 100 gals spray per acre by air or 10 to 60 gals spray per acre broadcast by ground Apply as necessary to maintain desired control. Do not apply more than 8 to 2.3 lbs per acre per season Do not apply after first head begins to form to control nematode from mid September through November in desert areas of AZ and CA Do not feed trimmings to livestock or show animals to graze on treated areas	2 to 3 weeks 2 to 3 weeks
Peppers all types	Colorado potato beetles cabbageworms cutworms European cornborer	2 to 2.3 lb	For use in all western, 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 Do not feed eggs or insects to livestock or show animals to graze on treated areas	7 to 8 weeks
Sweet peppers Bell type	Colorado potato beetles cabbageworms cutworms European cornborer	2 to 2.3 lb	Apply in water at a minimum of 5 gals spray per acre by air or 5 to 150 gals spray per acre by ground Apply when eggs or insects first appear. Repeat as necessary until insects have been reduced below economic numbers	7 to 8 weeks

PASTURE, RANGELAND, WASTELAND

PASTURE, RANGE AND WILDLAND		Season SUMMER F.L.S. Pest Area	Fertilizer - Inorganic	Days Months
Crops	Insects	1 to 1 1/2 lb 0.09 to 0.17 lb active spread	Apply in water at a maximum of 10 gals 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 retarding 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 of feed treated hay or lactating dairy cattle within 21 days after application. Remove mud 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	for hay
Pasture Range Wildland	Grazing Mammals Cattle Black Bugs			
Importing Live Animals	Straw Haystack Dry Matted Cattle 1 to 2 days over the mound	1 to 2 days over the mound	For best results apply the material in the early morning or late afternoon when the grass is most active Applications made under prolonged hot and dry conditions may be ineffective due to the location of the insects deep within the nest Grass in treated areas may be mowed Treat maximum of 13 animals per acre. Do not treat more than one animal per season Do not apply while lactating dairy cattle are present. Do not pasture of feed hay to lactating dairy cattle within 21 days after application. Remove mud 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	21

SPECIALTY LINE

Crops	Insects	Amount of Insecticide Per Acre	Other Insecticides	Days to Harvest
Non-Crop Areas Land borders field drains canals orchards and borders etc.	grasshoppers 75% active ingredient	4	For early and mid season application to grasshoppers in land borders, fence rows, orchards, ditches and borders use Asph. at 1 to 5 gals. of water per gal. or 1 to 20 gals. of water with ground equipment. Use the higher volumes when spraying heavier crops. Do not spray or feed vegetation cut from treated areas	
Crops	Insects	Amount of Insecticide Per Acre	Other Insecticides	Days to Harvest
Non-Crop Areas	grasshoppers	4	For early and mid season application to grasshoppers in land borders, fence rows, orchards, ditches and borders use Asph. at 1 to 5 gals. of water per gal. or 1 to 20 gals. of water with ground equipment. Use the higher volumes when spraying heavier crops. Do not spray or feed vegetation cut from treated areas	

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Apply 1 lb. per 100 sq. ft. of area to be treated. Do not apply more than 1 lb. per 100 sq. ft. of area.	
SPECIALTY USES	
Crops	Insects
Non-Crop Areas - Road borders - Enclosures - Roadside ditches - and barrows - etc.	Grasshoppers
	25 lb. active ingredient
	For early to mid season application to grasshoppers in bare lands: broadcast granules, drenching and barrow and Apply 1 to 5 gals. of water by air or 10 to 20 gals. of water with ground equipment. Use the higher volume when spraying heavier foliage. Do not spray or feed vegetation cut from treated areas.

Crops	Insects	Amount DITHANE 75 S Per Acre	Further Use Instructions	Days to Harvest
Non-Crop Areas	Imported Fire Ants	Mound treatment—Dry Mounds Evenly distribute 1 to 2 lbs. granules over the mound. Wet Mounds Mix 1 lb. in 5 gals. of water. Apply 1 gal. of mix to each mound and by scrubbing the mound until it is wet and treat a 4 ft. dia. 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 mowed. Do not treat mound more than once per season.	

Plants	Insects	Amount DITHANE 75 S Per 100 Gals.	Time of Application	Recommended Application
Container Grown Nursery Stock (Arise, Azalea, Camelia, Rhododendron, Rose, Viburnum, Yew)	Black Vine Weevil Strawberry Root Weevil	1 lb. (10 gal.)	Applications should be made by mid-September for green house stock and by mid-October for root stock. Consult your local county extension agent for information on the identification and control of root weevils as a preventative.	Apply the specified amount of DITHANE 75 S Soluble Powder per 100 gals. of solution so as to thoroughly drench the root system.

SMALL SPRAY EQUIPMENT		
Preparation of DITHANE 75 S Spray Mix using a 16 oz. Measuring Cup		
Label Recommendation DITHANE 75 S Soluble Powder	Equivalent DITHANE 75 S Soluble Powder	Equivalent DITHANE 75 S Soluble Powder
1.3 lb.	2.12 oz.	1
2.3 lb.	5.02	2
5	7.12 oz.	3
11.3 lbs.	10.02	4
*Use a 16 oz. measuring cup		

TREES AND SHRUBS				
Plants	Insects	Amount DITHANE 75 S Per 100 Gals.	Time of Application	Recommended Application
Trees and Shrubs except Hawthorn Crab apple see below	Aphids Banyan Bark Leafminer Lard Caterpillar Lace Bugs Leafhoppers	5.3 lb. (10 gal.)	As the insects begin to appear	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer. The addition of a suitable sticker improves control of sucking insects.
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae Webworms	2.3 lb. (10 gal.)	As the insects begin to appear	*Use blower application. Adjust rates to 1.13 lb. per 100 gals. water for Gypsy Moth control and 0.5 lb. per 100 gals. water for Lard Caterpillar control. Do not apply to Huckleberry, Balm of Gilead, Camptotheca, Lombardy Poplar and Viburnum Setebium.
	Scales (Cankers)	2.3 lb. (10 gal.)	As crawlers begin to appear. Repeat applications in a 2 week or more interval may be necessary where there is continuous crawler production.	Nursery crops. Before treating large plantings spray only a few plants and observe two weeks for phytotoxicity.
	Porter's Pine Needle Miner	2.3 lb. (10 gal.)	Time of application is important. Consult your Farm Advisor or County Extension Agent.	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Trees and Shrubs	Grasshoppers	2.3 lb. (10 gal.)	As the grasshoppers begin to appear	
	California Oakworm Caterpillars (Spray and Fall)	1.3 to 2.3 lb. (5.3 to 10.5 gal.)	As the insects begin to appear. Use the higher amount when the larger larvae are present.	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer.
	Nannyberry Pine Tip Moth Larvae	1 lb. (5 gal.)	Time of application is important. Consult your Farm Advisor or County Extension Agent. Repeat applications may be required for subsequent generations.	
	Red Weevil Adults	1 lb. (10 gal.)	Apply when first feeding damage occurs. Repeat applications at four week intervals until the first heavy frost. May be necessary for complete foliage protection.	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Box Elder Bugs Scattered Leafhoppers	1 lb. (10 gal.)	As the insects begin to appear	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Japanese Beetle	1.13 lbs. (21.3 gal.)	As the Japanese Beetle begins to appear. Repeat applications at 7 to 10 day intervals may be necessary.	
	Elm Leaf Beetle (Larvae)	1.13 lb. (21.3 gal.)	*A 1% larval population requires DITHANE 75 S and may require Elm in 1% or 1% eggs from etc. etc.	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Douglas Fir (Christmas Trees)	Douglas Fir Needle Midge	1 lb. (10 gal.)	Application should be made no more than 2 weeks prior to bud set. For additional protection, spray at 10 to 15 days prior to bud set. Consult your County Extension Agent.	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. of water or 100 gals. of spray oil to the ground.
Hawthorn Crabapple	Bark Lard Caterpillars	1 lb. (5.3 gal.)	As the insects begin to appear	Apply the specified amount of DITHANE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer. Do not spray more often than 3 weeks or a growing season at a 4 week interval. Caution: Phytotoxicity has occurred on the following Crabapple varieties: Japan Quince, Manchurian Quince, Pinnatifid Red Quince and Sweet Quince.

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

Plants	Insects	Amount ORTHENE 75 S Per 1000 Sq. Ft.	Time of Application	Recommended Application
Turfgrass Reseeding & Sod Lawn	Fall Armyworm Yellow-striped Armyworm Southern Armyworm	9 to 12 oz 11 1/2 to 24 lbs per acre	As the insects appear. A repeat application at 2 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 (24 to 48 lbs) per acre		
	Chinch Bugs	12 to 24 oz (24 to 48 lbs) per acre	Apply as needed for adult populations (check down 18 to 24 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
	Flies	12 to 24 oz	Apply as needed for stocking (17 to 18 days) only of breeding adult populations	
Sod Waterways (Grassless top)		10 to 12 oz (11 to 24 lbs) per acre	As the waterways begin to appear. Use the higher amounts when birds knock down or with heavy irrigations Repeat application may be necessary Do not repeat at more than 1 week intervals	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
	Leafhopper	1 oz (24 lbs) per acre	As the leafhoppers begin to appear. A repeat application at 1 week intervals may be necessary	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
Mole Crickets (Except CA)		10 to 18 oz (24 to 52 lbs) per acre	As mole crickets begin to appear. For knockdown of smut- ting populations. More than one application may be required throughout the grow- ing season. For heavy populations, 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
	Grasshopper (Saltmarsh Grasshopper)	1 oz (24 lbs) per acre	Apply when insects or their damage first appears. Repeat as necessary. Applic- ation at not to be re- peated at more than 1 week intervals	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. Do not make surfgrass for at least 24 hours after application

Plants	Insects	Amount ORTHENE 75 S Per 1000 Sq. Ft.	Time of Application	Recommended Application
Turfgrass	Ground Squirrel Dry Blasted Every 1 to 2 lbs spoons per the mound	10 to 12 oz (11 to 24 lbs) per acre	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 mound	Apply the specified amount of ORTHENE 75 S Soluble Powder as directed Grass in treated areas may be killed Do not treat mound more than once per season

Plants	Insects	Amount ORTHENE 75 S Per 1000 Sq. Ft.	Time of Application	Recommended Application
Grounds	Cutworm Flea Beetle Southern Armyworm Yellow-striped Armyworm	10 to 18 oz (24 to 52 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

OUTDOOR VINEY AND PERIMETER SPRAY

Plants	Insects	Amount ORTHENE 75 S Per 1000 Sq. Ft.	Time of Application	Recommended Application
Lawn Moss and Water Lily	Wasp	16 oz (10 lbs)	Treat early or late in the day, as wasps are generally less active during these times	Apply specified amount of ORTHENE 75 S Soluble Powder per each gallon of water used. Apply in 4 spot treatment to the nest, nest entrance, and surrounding areas where the wasps sight
	Cockroach Ant Pamphlet Larvae (Perimeter Treatment)	16 oz (10 lbs)	As the insects appear	Apply specified amount of ORTHENE 75 S Soluble Powder per each gallon of water used Apply to a band of 6 to 10 feet adjacent to the structure and to a height of 2 to 3 feet on the foundation where pests may be active or may find entrance. Also apply to a band of 6 to 10 feet on the ground around the structure, around the base of trees, shrubs, and other areas where these pests congregate

OUTDOOR FLORAL CROPS AND GRASS COVERS

Plants	Insects	Amount ORTHENE 75 S Per 1000 Sq. Ft.	Time of Application	Recommended Application
Daisies Dahlias Easter Lily Gladiolus Gypsophylla Pachy- sandra Peony Sage Sedum Spiraea Tulip Zinnia	Aphid Thrips Larvae	2.5 lb (10.5 oz)	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 burn or marginal leaf necrosis on some varieties. Test on a few plants to determine varietal sensitivity
	Japanese Beetle	1.5 lb (7.5 oz)	As the Japanese beetles begin to appear. Repeat applications at 2 week intervals may be necessary	

GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS

Plants	Insects	Amount ORTHENE 75 S Per 1000 Sq. Ft.	Time of Application	Recommended Application
Roses	Leafhopper	2.5 lb (10.5 oz)	As leafhoppers 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
	Aphid	1.5 lb (7.5 oz)	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
Tulips Orchids Anemones Crocus Pansies	Whitefly Thrips Whitefly	2.5 lb (10.5 oz)	As the insects begin to appear. A repeat application at 2 week intervals may be necessary for control of the whitefly and thrips	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray
	Scout	2.5 lb	As the insects 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

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Plants	Insects	Amount ORTHENE 75 S Per 100 Gals.	Time of Application	Recommended Application
Roses	Leafhoppers	2/3 to 1 lb (10.5 to 16 oz)	As leafhoppers 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	1/3 lb (5.3 oz)	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	2/3 lb (10.5 oz)	As the insects begin to appear. A repeat application, at a 2 week interval, may be necessary for control of mealybugs and whiteflies.	Caution: Phytotoxicity has occurred on the following foliage plants: Blechnum sp. Cissus antarctica, Ficus triangularis, Ficus verschaffeltii, Maranta leucocarpa kochoviana, Pachystachya lutea, Plectranthus australis, Polypodium aureum, Polystichum, Pteris ensiformis, Tolmiea menziesii. Before treating large plantings spray only a few plants and observe 2 weeks for varietal phytotoxicity.
	Scales (Crawlers)	2/3 lb (10.5 oz)	As crawlers begin to appear. Repeat applications, at a 2 week or more interval, may be necessary where there is continuous crawler production.	
Roses Carnations Chrysanthemums	Aphids Thrips	2/3 lb (10.5 oz)	As aphids begin to appear. As thrips begin to appear or at the tight flower bud stage. Repeat applications may be necessary.	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray. Do not apply more often than once every 28 days to Carnations and Chrysanthemums. Caution: Phytotoxicity has occurred on the following Chrysanthemum varieties: Albatross, Bonnie Jean, Dixie, Garland, Gem, Iceberg, 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 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 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 800-457-2022.

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 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 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.

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PYDRIN® - Reg. TM of E.I. du Pont de Nemours & Co., Inc. for fenvalerate insecticide.

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