

Reg # 59639-26 PM-14

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ORTHO

ORTHENE®
75 S Soluble Powder

(INSECTICIDE)

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

Active Ingredient
*Acaphate (O,S Dimethyl acetyl-
phosphoramide) 75%
Inert Ingredients 25%
*ORTHENE® Acaphate
U.S. Pat. No. 3,716,600

By Wt

75%
25%

Chevron Chemical Company © 1965
Ortho Agricultural Chemicals Division
San Francisco CA 94120 7144
R Form 10787 G Product 5332 Made in U.S.A.
EPA Reg. No. 239 2418 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. Keep children and animals off treated areas until these areas are dry.

STATEMENT OF PRACTICAL TREATMENT

If swallowed, give large amount of water to drink. Make person drink 1 quart of water. If in contact with eyes, wash eyes with fresh water for 15 minutes. If irritation continues, seek a doctor. Wash hands thoroughly after handling.

Note to Physicians: Emergency information: 1-800-233-3717. Acaphate is a phosphoramide. It is not a gas of chloromethane. It does not appear to be a skin irritant. 7 P.M. it is a soluble insecticide. It is not a skin irritant but should not be used on skin.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds. Do not apply to water or wetlands. Do not use on or near water. Do not apply this product in a way that will harm fish or other aquatic life. Do not use on or near water. Do not apply this product in a way that will harm fish or other aquatic life.

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 off of treated areas until they are dry. Do not enter treated areas without protection until insects 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 all other exposures must be given to workers who are expected to be in treated areas or areas about to be treated.

DIRECTIONS

Table of Equivalents

Amount of ORTHENE 75 S Soluble Powder	1 lb	2 lb	3 lb	4 lb	5 lb	6 lb	7 lb	8 lb	9 lb	10 lb
Amount Active Ingredient	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0

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 (Legs)	1.3 to 1.3 lbs		
	2.3 to 1.3 lbs			
	1.3 to 1.3 lbs			
	1.3 to 1.3 lbs			
	1.3 to 1.3 lbs			
	1.3 to 1.3 lbs			
	1.3 to 1.3 lbs			
	1.3 to 1.3 lbs			
	1.3 to 1.3 lbs			
	1.3 to 1.3 lbs			

SPECIALTY USES

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Non-Crop Areas	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. 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 (Arbutus, Azalea, Camelia, Rhododendron, Roses, Viburnum, Yew)	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 outdoor stock. Consult your local county extension agent for information on the identification and control of root weevils on ornamentals.	Apply the specified amount of ORTHENE 75 S Soluble Powder per 100 gals. of solution so as to thoroughly drench the root system.

SMALL SPRAY EQUIPMENT

Preparation of ORTHENE Spray 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 (16 oz. Gal.)
1.3 lb	2.12 oz	1
2.3 lb	5.6 oz	2
1 lb	1.12 oz	3
1.3 lbs	10 oz	4

*Use in 16 oz. measuring cup

TREES AND SHRUBS

Plants	Insects	Amount ORTHENE 75 S Per 100 Gals	Time of Application	Recommended Application
Trees and Shrubs (except flowering Crab apple see below)	Achids, Bagworms, Birch Leafminer, Tent Caterpillar, Lace Bugs, Leafrollers	1.3 lb (15.3 oz)	As the insects begin to appear	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy Moth larvae.
	Douglas Fir Tussock Moth Larvae, Gypsy Moth Larvae, Webworms	2.3 lb (10.5 oz)	As the insects begin to appear	*Mist blower application. Adjust rates to 1.13 lbs per 100 gals. water for Gypsy Moth control and 10 lb per 100 gals. water for Tent Caterpillar control.
	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.	Do not apply to Huckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar and Viburnum suspensum.
	Nursery crops			Before treating large plantings, spray only a few plants and observe two weeks for phytotoxicity.
Trees and Shrubs	Ponderosa Pine Needle Miner	2.3 lb (10.5 oz)	Time of application is important. Consult your Farm Advisor or County Extension Agent.	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Grasshoppers	2.3 lb (10.5 oz)	As the grasshoppers begin to appear	
	California Oakworm (Spring and Fall)	1.3 to 2.3 lb (15.3 to 10.5 oz)	As the insects begin to appear. Use the higher amount when the larger larvae are present.	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer.
	Nantucket Pine Tip	1 lb (16 oz)	Time of application is important.	

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Orthene 75 S Soluble Powder, Insecticide, Fungicide, and Herbicide. Registered under U.S. Pat. No. 3,716,600.

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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)	1.3 to 1.13 lbs		
	Flea hopper	2.3 to 1.13 lbs (CA AZ)		
	Cotton Aphid	1.3 lb	Apply when eggs or insects first appear. Repeat as necessary to maintain control.	
	Whitefly	2.3 to 1.13 lbs		
	Armyworms	1.13 lbs	Lygus Use higher rate for Lygus adults that have migrated into cotton	
	Cabbage looper	1.13 lbs		
	Bollworm	2.3 to 1.13 lbs	Bollworm and Tobacco budworm Early season light infestation use 2.3 lb. per acre. Mid and late season moderate to severe infestations use 1 to 1.3 lbs. per acre. Apply when eggs appear and repeat at a 3 to 5 day spray interval.	
	Tobacco budworm	(East of Rockies) 1.13 lbs (CA AZ)		
	Stinkbugs (CA AZ)	1 lb		
Pink bollworm (CA AZ)	1.13 lbs	Pink bollworm Apply when insects appear and repeat at a 5 to 7 day spray interval.		
Do not apply within 21 days of harvest				
Do not feed gin trash to livestock or allow animals to graze on treated areas				

COTTON TANK MIXES

Crops	Insects	Amount ORTHENE 75 S + LORSBAN 4E Per Acre	Further Use Instructions	Days to Harvest
Cotton (CA AZ)	Armyworms	1.3 to 1.13 lbs	Do not feed gin trash or treat forage to livestock. Do not allow livestock to graze on treated areas	21
	Bollworm	1.1 to 2 lbs		
	Cabbage looper			
	Cotton Aphid			
	Cutworms			
	Flea hopper			
	Grasshoppers			
	Pink Bollworm			
	Plant Bugs			
	Lygus spp.			
	Salt Marsh Caterpillar			
	Thrips			
	Tobacco Budworm			
	Whitefly			

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 - 2.23 lb	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

FIELD CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Peppermint Spearmint	A Field Spider Cutworms Aphids	1.13 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. Use necessary to maintain control. Do not apply more than 2.23 lbs per acre per season.	14
Soybeans	Grasshoppers Soybean weaver	1.3 to 2.3 lb 2.3 to 1.13 lbs	Apply in water at 2 to 10 gals. spray per acre by air or 10 to 50	14

Trees and Shrubs (except Flowering Crab apple see below)	Bagworms Birch Leafminer Tent Caterpillar Lace Bugs Leafrollers	1.5 lb (5.3 oz)	As the insects begin to appear	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy Moth larvae
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae Webworms	2.3 lb (10.5 oz)	As the insects begin to appear	*Mist blower application. Adjust rates to 1-1.3 lbs. per 100 gals. water for Gypsy Moth control and 1.0 lb. per 100 gals. water for Tent Caterpillar control
	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	Do not apply to Muckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar and Viburnum suspensum
Trees and Shrubs	Ponderosa Pine Needle Miner	2.3 lb (10.5 oz)	Time of application is important. Consult your Farm Advisor or County Extension Agent	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray
	Grasshoppers	2.3 lb (10.5 oz)	As the grasshoppers begin to appear	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer
	California Oakworm Cankerworms (Spring and Fall)	1.3 to 2.3 lb (5.3 to 10.5 oz)	As the insects begin to appear. Use the higher amount when the larger larvae are present	
	Nantucket Pine Tip Moth Larvae	1 lb (16 oz)	Time of application is important. Consult your Farm Advisor or County Extension Agent. Repeat applications will be required for subsequent generations	
	Root Weevil Adults	1 lb (16 oz)	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 ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer as a full coverage spray
	Box Elder Bugs Sawflies Budworms Leafhoppers	1 lb (16 oz)	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
Trees and Shrubs	Japanese Beetle	1.13 lbs (21.3 oz)	As the Japanese Beetles begin to appear. Repeat applications at 2 week intervals 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
	Elm Leaf Beetle Larvae	1 lb (16 oz)	As the larvae begin to appear ORTHENE will not prevent Elm Leaf Beetle eggs from hatching	
	Douglas Fir Christmas Tree	1 lb (16 oz)	Application should be made no more than 2 weeks prior to bud burst. For additional pest management information, consult your County Extension Service	
Flowering Crabapples	Aphids Tent Caterpillars Leafrollers	1 lb (5.3 oz)	As the insects begin to appear	Apply the specified amount of ORTHENE 75 S Soluble Powder in 100 gals. water with a hydraulic sprayer
				Do not apply more often than 3 times in a growing season at a 4 week interval
Caution: Phytotoxicity has occurred on the following Crab apple varieties: Hops (Chonaski), Malus floribunda, Pink Perfection, Red Wine and Snow Cloud				

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

Plants	Insects	Amount ORTHENE 75 S Per 1,000 Sq. Ft.	Time of Application	Recommended Application
Turfgrass	Fall Armyworm Yellow Striped Armyworm Southern Armyworm	1.2 to 1.2 oz (1.3 to 3.14 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 1,000 sq. ft. Use a minimum of 5 gals. water per 1,000 sq. ft. to obtain good coverage
	Cutworms	1.3 to 2.3 lb		

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FIELD CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Peppermint Sagebrush	African looper Cutworms Aphids	1.1-1.3 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 2.2-2.3 lbs per acre per season.	14
Soybeans	Grasshoppers Soybean looper Cabbage looper Green Cloverworm Velvetbean Caterpillar Bean leaf beetle Mexican bean beetle Sunk bugs Armyworms Three-spined African looper Corn earworm	1.3 to 2.3 lb 2.3 to 1.1-1.3 lbs 1.1 to 1.3 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. Apply in water at 10 to 50 gals spray per acre by ground or 1.5 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
Peanuts	Grasshoppers Thrips Corn earworm Fall armyworm Leafhoppers Loopers Velvetbean Caterpillar	1.1-1.2 lbs 2.3 to 1.1-1.3 lbs 1.1 to 1.1-1.3 lbs		14

FRUIT CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cranberries	Fireworms Spanworms Sparganths	1.1-1.3 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.	30

VEGETABLE CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Beans and Lima Beans (Dry and Succulent Forms)	Firehoppers Grasshoppers Aphids Bean leaf beetle Bean caterpillar Cabbage looper Cutworms Green Cloverworm Leafhoppers Mexican bean beetle Plant bugs Stink bugs Soybean looper Thrips Whitefly Armyworms Cucumber beetle European corn borer	1.3 to 2.3 lb 2.3 to 1.1-1.3 lbs 1.1 to 1.3 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. Apply when eggs or insects first appear. Repeat at 7 to 10 day intervals as necessary. Severe insect infestations use higher rate. Do not feed treated vines to livestock. Apply in water at 2.5 to 10 gals spray per acre by ground or 1.5 to 10 gals spray per acre by air. Use the high rate when heavy infestations of aphids are present. Begin applications when insects first appear and repeat as needed to maintain control. Do not apply more than 8 lbs per acre per season to Brussels Sprouts. Do not feed tomatoes to livestock.	14-15 days for beans 10-12 days for lima beans
Brussels Sprouts Cauliflower	Green peach aphid Cabbage looper Diamondback moth Imported cabbage worm	1.1-1.3 lbs 1.1-1.3 lbs		14

occurred on the following Crab apple varieties: Hops, Ichonost, Malus floribunda, Pink Perfection, Red Wine and Snow Cloud

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

Plants	Insects	Amount ORTHENE 75 S Per 1,000 Sq. Ft.	Time of Application	Recommended Application
Turfgrass	Fall Armyworm Yellow Striped Armyworm Southern Armyworm Cutworm	1.2 to 1.2 oz (1-1/3 to 3 1/4 lbs per acre) 1.2 to 2.4 oz (3-1/4 to 6 2/3 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 1,000 sq. ft. Use a minimum of 5 gals. water per 1,000 sq. ft. to obtain good coverage.
	Sod Webworm (Crambe spp.)	1.2 to 1.2 oz (1-1/3 to 2 3/4 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.	Apply the specified amount of ORTHENE 75 S Soluble Powder per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage.
	Leafhopper	1 oz (2 3/4 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 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage.
	Mole Crickets (Except CA)	1.0 to 1.9 oz (2.66 to 5.2 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 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage. Apply during late afternoon or early evening hours and after an irrigation. Do not irrigate after application.
	Greenbug (Schizaphis graminum) Grasshoppers	1.2 oz (11 1/3 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 per 1,000 sq. ft. Use 4 gals. of water per 1,000 sq. ft. to obtain good coverage. Do not mow turfgrass for at least 24 hours after application.

Plants	Insects	Amount ORTHENE 75 S	Time of Application	Recommended Application
Turfgrass	Imported Fire ants	Mound Treatment—Dry Method Evenly distribute 1 to 2 tea spoons 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.	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 FLORAL CROPS AND GROUND COVERS

Plants	Insects	Amount ORTHENE 75 S Per 100 Gals.	Time of Application	Recommended Application
Daisies Dahlias Easter Lily Gladiolus Gypsophila Pachysandra Peony Roses Sedum Starline Straw Anemone Yarrow Zinnia	Aphids Thrips Lygus	2.3 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 tip burn or marginal leaf necrosis on some varieties. Test on a few plants to determine varietal susceptibility.
Roses Boston Ivy	Japanese Beetle	1.1-1.3 lbs (21.2 oz)	As the Japanese Beetles begin to appear.	

FRUIT CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Cranberries	Fireworms Spanworms Sparganths	1.1-1.3 lbs	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. Note: Limit to one application per growing season. Do not apply from start of bloom until all berries set.	90

VEGETABLE CROPS

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Beans and Lima Beans (Dry and Succulent Forms)	Firehoppers Grasshoppers	1.3 to 2.3 lb	Apply in water at a minimum of 2 gals. spray per acre by air or 20 to 100 gals. spray per acre by ground.	14 (snapbeans or dry beans)
	Aphids Bean leaf beetle Bean leafhopper Cabbage looper Cutworms Green Coverworm Leafhoppers Mexican bean beetle Plantbugs Rusts Soybean looper Thrips Whitefly	2.3 to 1.3 lbs	Apply when eggs or insects first appear. Repeat at 7 to 10 day intervals as necessary. Severe insect infestations use higher rates. Do not treat areas used for livestock.	On lima beans, sufficient time
Brussels Sprouts Cauliflower	Green peach aphid	2.3 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.	14
	Cabbage looper Diamondback moth Imported cabbage worm	1.1-1.3 lbs	Use the high rate when heavy infestations of aphids are present. Begin applications when adults or eggs first appear. Repeat applications as needed. Do not apply more than 8 lbs. per acre per season to Brussels Sprouts. Do not feed trimmings to livestock or allow animals to graze in treated areas.	
Cucurbit	Green peach aphid	2.3 to 1.3 lb	Apply in water at 50 to 100 gals. spray per acre by ground or a minimum of 5 gals. per acre by air.	21
	Bean and fly armyworms Cabbage worm	1.1-1.3 lbs	Apply when eggs or insects appear and repeat at 3 to 10 day intervals as necessary to maintain control. Trim plants if they removed before shipment or use. Do not use trimmings for livestock feed or feed.	
Head lettuce (Crishead Type Only)	Green peach aphid	2.3 to 1.3 lbs	Apply in water at 50 to 100 gals. spray per acre by ground or a minimum of 5 gals. spray per acre by air.	21 (Spring, summer and early fall)
	Cabbage worm Armyworms	1.1-1.3 lbs	Apply as needed to maintain desired control. Do not apply more than 6.2 lbs. per acre per season. Do not apply after first head begins to form. Insects which germinate from 3 September through November in desert areas of AZ and CA. Do not feed trimmings to livestock or allow animals to graze in treated areas.	21 (Spring, summer and early fall) On winter crops in Florida and Texas late's through Arizona winter crops in Arizona winter crops in California
Peppers (non bell type)	Aphids	2.3 lb	For use in Mississippi, Eastern States and Puerto Rico only. Apply in water at 60 to 150 gals. spray per acre by ground or equipment. Repeat at 7 to 10 day intervals as necessary.	

			than one application may be required throughout the growing season. For heavy infestations, use the higher dosage rate.	Good coverage. Apply during late afternoon or early evening hours and after an irrigation. Do not irrigate after application.
Greenbug (Schizaphis graminum)	Grasshoppers	1.2 oz (1.1-1.3 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.

Plants	Insects	Amount ORTHENE 75 S	Time of Application	Recommended Application
Turfgrass	Imported Fire Ants	Mound Treatment - Dry Method Evenly distribute 1 to 2 teaspoons over the mound. Branch 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.	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 FLORAL CROPS AND GROUND COVERS

Plants	Insects	Amount ORTHENE 75 S Per 100 Gals	Time of Application	Recommended Application
Daisies Dahlias Easter Lily Gladoli Gypsophila Pachysandra Peony Roses Sedum Starline Flower Yarrow Zinnia	Aphids Thrips Lygus	2.3 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 tip burn or marginal leaf necrosis on some varieties. Test on a few plants to determine varietal susceptibility.
Roses Boston Ivy	Japanese Beetle	1.1-1.3 lbs (21.3 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 100 Gals	Time of Application	Recommended Application
Roses	Leafrollers	2.3 to 1.5 (10.5 to 16 oz)	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 (Jade Plants, Arachnids, etc.)	Aphids	1.1 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: Blotchum gibbum, Cissus antarctica, Ficus triangularis, Pittoma verschaffeltii, Maranta leuconera, Berchovana, Pachystachya lutea, Plectranthus australis, Polypodium aureum, Polystichum, Platanus, etc. Before treating large plantings spray only a few plants and observe 2 weeks for varietal phytotoxicity.
Roses (Crawlers)	Scars (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.	
	Aphids Thrips	2.3 lb (10.5 oz)	As aphids begin to appear. As thrips begin to appear or at the light 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.

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			Do not feed trimmings to livestock or allow animals to graze on treated areas.	
Peppers (non bell type)	Aphids	2.3 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.	7
Sweet peppers (Bell type)	Grasshoppers	1.3 to 2.3 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.	7
	Cabbage looper	2.3 to 11.3 lbs	Apply when eggs or insects appear. Repeat as necessary until insects have been reduced below economic numbers.	
	Green peach aphid			
	Tobacco hornworm			
	European corn borer	1 to 11.3 lbs		

PASTURE, RANGELAND, WASTELAND

Crops	Insects	Amount ORTHENE 75 S Per Acre	Further Use Instructions	Days to Harvest
Pasture Rangeland Wasteland	Grasshoppers Mormon Crickets Black Grass Bugs	1.8 to 1.6 lb 10.094 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. ORTHODROL or NALCO TROL 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 or feed treated hay to lactating dairy cattle within 21 days after application. Remove meat on meat 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 for hay
	Imported Fire Ants	Mound Treatment - Dry Method Evenly distribute 1 to 2 teaspoons 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. Grass in treated area may be injured. Treat maximum of 13 mounds per acre. Do not treat mound more than once per season. Do not apply when lactating dairy cattle are present. Do not pasture or feed hay to lactating dairy cattle within 21 days after application. Remove meat on meat from treated areas at least 1 day before slaughter if they were present at application or grazed treated areas within 21 days after application.	21

			there is continuous crawler production	Polystichum, Pieris esomiformis, Ichnea menziesi. Before treating large plantings spray only a few plants and observe 2 weeks for varietal phytotoxicity.
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 Money. 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 (415) 233-3737.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

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

CONDITIONS OF SALE: 1. Chevron Chemical Company (Chevron) warrants that this material conforms to the chemical description on the label and is reasonably fit for use as directed hereon. Chevron neither makes, nor authorizes any agent or representative to make, any other warranty of **FITNESS** or of **MERCHANTABILITY**, guarantee or representation, express or implied, concerning this material.

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

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