



Orthene®

TURF, TREE & ORNAMENTAL SPRAY 97

SOLUBLE INSECTICIDE KILLS FIRE ANTS

Active Ingredient	By Wt.
Acephate (O,S-Dimethyl acetylphosphoramidothioate)	97%
Other Ingredients	3%
Total	100%

U.S. Pat. No. 6,013,272

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS

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.

FIRST AID

Acephate is an organophosphate, cholinesterase inhibitor.

If swallowed: Call poison control center or doctor immediately for treatment advice.

Have person sip a glass of water if able to swallow.

Do not induce vomiting unless told to do so by the poison control center or doctor.

Do not give anything by mouth to an unconscious person.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Call a poison control center or doctor for treatment advice.

If on skin Take off contaminated clothing.

or clothing: Rinse skin immediately with water for 15-20 minutes.

Call a poison control center or doctor for treatment advice.

(Continued)

FIRST AID (Continued)

If inhaled: Move person to fresh air.

If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

NOTES TO PHYSICIAN

This material contains a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure but decisions regarding treatment will usually need to be made before test results are available. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and chemical-resistant headgear for overhead exposure.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wastes. Cover or soil-incorporate spills.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

DIRECTIONS FOR USE

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

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls, waterproof gloves, shoes plus socks and chemical-resistant headgear for overhead exposure.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests or greenhouses.

For other uses, including golf courses and other non-agricultural areas, do not enter treated areas without protective clothing until sprays have dried.

DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest.

(Continued)

RISKS OF USING THIS PRODUCT, Continued

If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and **subject to the Risks of Using This Product as described above. EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

In no event shall Valent or Seller be liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THIS PRODUCT.

PROMPT NOTICE OF CLAIM

Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

If Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability**, which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

GENERAL INFORMATION

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 Outdoor Floral Crops and Ground Covers
 Greenhouse Floral and Foliage Plant Crops

DIRECTIONS

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

SMALL VOLUME SPRAY EQUIPMENT

Preparation of <i>Orthene</i> Spray Mix Using a Small Fluid Ounce Measuring Cup		
Label Recommendation <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in 100 Gals. of Water	Equivalent <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in 25 Gals. of Water	Equivalent <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in 1 Gal. of Water (tsp./Gal.)
1/4 lb.	1 oz.	1/3 tsp.
1/2 lb.	2 oz.	2/3 tsp.
3/4 lb.	3 oz.	1 tsp.
1 lb.	4 oz.	1-1/3 tsp.

NON-BEARING CITRUS DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS.

Plants	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per Acre	Time of Application	Recommended Application
Non-Bearing Citrus (including citrus nursery seedlings)	Aphids Grasshoppers Katydid Mealybugs Orangedogs Plant Bugs (Lygus) Thrips Whiteflies	1/2 lb. (8 oz.)	Apply as needed for control of existing populations.	Apply <i>Orthene</i> Turf Tree & Ornamental Spray 97 in 100 to 200 gals. of water per acre. Spray individual juvenile or non-bearing trees for coverage with total application not to exceed specified rate in lbs. per acre. Length of residual activity will depend upon spray coverage and the amount of moisture following application. Do not allow livestock to graze treated areas. DO NOT HARVEST citrus for one year after treatment.
	Citrus Blackfly*	1/2 to 3/4 lb. (8 to 12 oz.)	The high rate should be used when a heavy infestation of Citrus Blackfly is present. Begin applications when eggs or adults first appear. Apply on a 7 to 10 day interval or as needed to maintain control.	
	Ants, Including Imported Fire Ants and Harvester Ants*	Foliar Spray 3/4 lb. (12 oz.)	Apply as needed for control of existing populations.	
		Mound Treatment - Drench Method: Mix 3/4 oz. in 5 gal. of water. Apply 1 gal. of mix to each mound area by sprinkling mound until it is wet and treat a four (4) foot diameter circle around the mound.		

* Not registered in CA for control of Citrus Blackfly and Harvester Ants.

NURSERY STOCK

**NON-BEARING DECIDUOUS FRUIT TREES, NUT TREES AND VINES IN NURSERY FIELDS OR NON-BEARING ORCHARDS
DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS.**

Plants	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per Acre	Time of Application	Recommended Application
Nursery Stock (Non-bearing Deciduous Fruit Trees, Nut Trees, Vines) Almond Apricot Apple Cherry Grape Kiwi Pear Pistachio Plum Prune Walnut	Aphids Plant Bugs (Lygus) Thrips	1/2 to 1 lb. (8 to 16 oz.)	Apply as needed for control of existing populations.	Apply <i>Orthene</i> Turf Tree & Ornamental Spray 97 in 50 to 200 gals. of water per acre by ground and not less than 5 gals. of water per acre by air.

USE PRECAUTIONS: For application only to non-bearing trees and vines in nursery fields or in non-bearing orchards. Do not apply to interplants or single trees in a bearing orchard.

Do not harvest any fruit from sprayed trees for one-year after application.

SPECIALTY USES - NON CROP AREAS

Crop	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per Acre	Further Use Instructions
Non-Crop Areas (Field borders, fencerows, roadsides, ditchbanks and borrow pits)	Grasshoppers	1/4 lb. (4 oz.)	For early to mid-season application to Grasshoppers in field borders, fencerows, roadsides, ditchbanks and borrow pits. Apply in 1 to 5 gals. of water by air, or in 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.
Non-Crop Areas	Ants, Including Imported Fire Ants and Harvester Ants*	Mound Treatment - Drench Method: Mix 3/4 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.

* Not registered in CA for control of Harvester Ants.

SPECIALTY USES - CONTAINER GROWN NURSERY STOCK

Plants	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per 100 Gals.	Time of Application	Recommended Application
Container Grown Nursery Stock (Arborvitae, Azalea, Camellia, Rhododendron, Roses, Viburnum, Yew)	Black Vine Weevil Strawberry Root Weevil	3/4 lb. (12 oz.)	Application should be made by mid-September for greenhouse 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per 100 gals. of solution so as to thoroughly drench the root system.
	Ants, Including Imported Fire Ants and Harvester Ants*	3/4 lb. (12 oz.)	Apply as needed to control the pest.	

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TREES AND SHRUBS

Plants	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray⁹⁷ Per 100 Gals.	Time of Application	Recommended Application
Trees and Shrubs (Except Flowering Crabapple, see next page)	Aphids Bagworms Birch Leafminer Lace Bugs Leafrollers Tent Caterpillars*	1/4 lb. (4 oz.)	As the insects begin to appear.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 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	1/2 lb. (8 oz.)	As the insects begin to appear.	* Mist blower application: Adjust rates to 1 lb. per 100 gals. water for Gypsy Moth control and 3/4 lb. per 100 gals. water for Tent Caterpillar control.
	Scale (Crawlers)	1/2 lb. (8 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.
	Ponderosa Pine Needle Miner	1/2 lb. (8 oz.)	Time of application is important. Consult your Farm Advisor or County Extension Agent.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Grasshoppers	1/2 lb. (8 oz.)	As the grasshoppers begin to appear.	
	California Oakworm Cankerworms (Spring and Fall)	1/4 to 1/2 lb. (4 to 8 oz.)	As the insects begin to appear. Use the higher amount when the larger larvae are present.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in 100 gals. water with a hydraulic sprayer.
	Nantucket Pine Tip Moth Larvae	3/4 lb. (12 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	3/4 lb. (12 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Box Elder Bugs Budworms Leafhoppers Sawflies	3/4 lb. (12 oz.)	As the insects begin to appear.	
	Japanese Beetle	1 lb. (16 oz.)	As the Japanese Beetles begin to appear. Repeat applications, at 2 week intervals, may be necessary.	
Elm Leaf Beetle (larvae)	1 lb. (16 oz.)	As the larvae begin to appear. <i>Orthene</i> will not prevent Elm Leaf Beetle eggs from hatching.		
Douglas Fir (Christmas Trees)	Douglas Fir Needle Midge	1/2 lb. (8 oz.) (1/2 lb. per acre)	Application should be made no more than 2 weeks prior to bud burst. For additional pest management information, consult your County Extension Service.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in not less than 2 gals. of spray per acre by air or in 100 gals. of spray per acre by ground.

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TREES AND SHRUBS (Continued)

Plants	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray97 Per 100 Gals.	Time of Application	Recommended Application
Flowering Crabapples	Aphids Leafrollers Tent Caterpillars	1/4 lb. (4 oz.)	As the insects begin to appear.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 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 Crabapple varieties: Hopa, Ichonoski, Malusfloribunda, Pink Perfection, Red Wine and Snow Cloud.
Crape Myrtle	Aphids	2 to 3 Level Tbsp. (0.6 to 0.9 oz.) per 1 Tbsp. of water.	As aphids begin to appear.	Make a paint-on slurry by mixing the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 with 1 tablespoon of water. Remove the loose bark from the trunk areas to be treated. Completely paint a band around each trunk to a width twice its diameter. Application should be made to trunks within a zone 6 to 12 inches above the ground and below the point where branching begins. For multi-trunk plants be certain to treat all trunks. For either single or multi-trunk plants, application should be made as low as possible within the recommended treatment zone.

GOLF COURSES AND SOD FARM TURFGRASS

DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS. DO NOT FEED TREATED GRASS TO LIVESTOCK.

Plant	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray97 Per 1,000 Sq. Ft.	Time of Application	Recommended Application	
Turf (Golf Course and Sod Farm Turfgrass)	Fall Armyworm Yellow Striped Armyworm Southern Armyworm	0.4 to 0.9 oz. (1 to 2-1/2 lbs. per acre)	As the insects appear. A repeat application at 2 week intervals may be necessary.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per 1,000 sq. ft. Use a minimum of 5 gals. water per 1,000 sq. ft. to obtain good coverage.	
	Cutworm	0.9 to 1.8 oz. (2-1/2 to 5 lbs. per acre)			
	Chinch Bugs	0.9 to 1.8 oz. (2-1/2 to 5 lbs. per acre)	Apply as needed for adult population knockdown (10 to 14 days).		Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage.
	Fleas	0.9 to 1.8 oz. (2-1/2 to 5 lbs. per acre)	Apply as needed for knockdown (7 to 10 days) only of existing adult populations.		
	Sod Webworm (<i>Crambus</i> spp.)	0.4 to 0.8 oz. (1 to 2 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage.
	Leafhopper	3/4 oz. (2 lbs. per acre)	As the leafhoppers begin to appear. A repeat application at 1 week intervals may be necessary.		

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GOLF COURSES AND SOD FARM TURFGRASS (Continued)

DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS. DO NOT FEED TREATED GRASS TO LIVESTOCK.

Plant	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per 1,000 Sq. Ft.	Time of Application	Recommended Application
Turf (Golf Course and Sod Farm Turfgrass)	Mole Crickets (Except CA) Spittlebug (Except CA)	0.8 to 1.4 oz. (2 to 3.9 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97 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. 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97. The following lemon-scented products have been shown to be effective flushing agents: Lemon Joy, Lemon Palmolive, and Mighty Myrt Products Manufacture-Base Pure Lemon Fragrance. The use rate for these lemon-scented products is 2 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 (<i>Schizaphis graminum</i>) Grasshoppers	0.4 oz. (1.0 lb. per acre)	Apply when insects or their damage first appear. Repeat as necessary. Application is not to be repeated at more than 1 week intervals.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97. 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.
	Black Turfgrass Ataenius (Except CA)	0.9 to 1.4 oz. (3.1 to 3.9 lbs. per acre)	Apply when insects or their damage first appear.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per 1,000 sq. ft. Use a minimum of 5 gals. water per 1000 sq. ft. Irrigate lightly after application (not more than 1/2 inch). Use the higher rate for severe infestations.
Dichondra (Plant site for Golf Course and Sod Farm Turfgrass)	Cutworm Flea Beetle Southern Armyworm Yellow Striped Armyworm	0.8 to 1.4 oz. (2 to 3.9 lbs. per acre)	As the insects appear. Repeat at 2 week intervals as necessary.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per 1,000 sq. ft. Use a minimum of 15 gals. of water per 1,000 sq. ft. to obtain good coverage.

MOUND TREATMENT OF FIRE ANTS AND HARVESTER ANTS IN TURFGRASS

DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS. DO NOT FEED TREATED GRASS TO LIVESTOCK.

Plant	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97	Time of Application	Recommended Application
Turfgrass Residential, Recreational and Commercial Turf	Ants, Including Imported Fire Ants and Harvester Ants*	Mound Treatment - Drench Method: Mix 3/4 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97 as directed. Grass in treated areas may be injured. Do not treat mound more than once per season.

* Not registered in CA for control of Harvester Ants.

OUTDOOR AND PERIMETER SPRAY

Location	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per Gallon	Time of Application	Recommended Application
Outdoor and Perimeter Area	Wasp	1.2 oz.	Treat early or late in the day, as wasps are generally less active during these times.	Apply specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per each gallon of water used. Apply as a spot treatment to the nest, nest entrance, and surrounding areas where the wasps alight.
	Ants, Including Imported Fire Ants and Harvester Ants* Crickets Cockroaches Earwigs Pillbugs	1.2 oz.	As the insects appear.	Apply specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 per each gallon of water used. Apply to a band of soil 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 as a residual spray or with a paint brush to surfaces of buildings, window frames, shutters, entryways, screens, eaves, patios, garages, carports, around garage areas and other areas where these pests congregate.

NOTE: Not for use on residential turfgrass.

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OUTDOOR FLORAL CROPS AND GROUND COVERS

Plants	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per 100 Gals.	Time of Application	Recommended Application
Chrysanthemums Dahlias Daisies Easter Lily Gladioli <i>Gypsophila</i> Pachysandra Pansy Peony Roses Sedum Statice Strawflower Yarrow Zinnia	Aphids Thrips Lygus	1/2 lb. (8 oz.)	As insects begin to appear. Repeat applications may be necessary.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 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.
Boston Ivy Roses	Japanese Beetle	1 lb. (16 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97 Per 100 Gals.	Time of Application	Recommended Application
Roses	Leafrollers	1/2 to 3/4 lb. (8 to 12 oz.)	As leafrollers begin to appear. Use the higher amount when the large larvae are present.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 in 100 gals. water with a hydraulic sprayer as a full coverage spray.

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GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS (Continued)

Plants	Insects	Amount <i>Orthene</i> Turf, Tree & Ornamental Spray97 Per 100 Gals.	Time of Application	Recommended Application
Foliage Plants Anthuriums	Aphids	1/2 lb. (8 oz.)	As aphids begin to appear.	Apply the specified amount of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 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. Caution: Phytotoxicity has occurred on the following foliage plants: <i>Blechnum gibbum</i> , <i>Cissus antarctica</i> , <i>Ficus triangularis</i> , <i>Fittonia verschaffelii</i> , <i>Maranta leuconeura kerchoveana</i> , <i>Pachystachya lutea</i> , <i>Plectranthus australis</i> , <i>Polypodium aureum</i> , <i>Polystichum</i> , <i>Pteris ensiformis</i> , <i>Tolmiea menziesii</i> . Before treating large plantings spray only a few plants and observe two weeks for varietal phytotoxicity. Application of <i>Orthene</i> Turf, Tree & Ornamental Spray 97 on Poinsettias after bract formation may result in phytotoxicity on certain varieties.
Cacti Orchids Poinsettia	Mealybugs Thrips Whiteflies	1/2 lb. (8 oz.)	As the insects begin to appear. A repeat application, at a 2 week interval, may be necessary for control of mealybugs and whiteflies.	
	Scale (Crawlers)	1/2 lb. (8 oz.)	As crawlers begin to appear. Repeat applications, at a 2 week or more interval, may be necessary where there is continuous crawler production.	
	Sweet Potato Whiteflies (Except CA)	1/4 lb. (4 oz.) plus <i>Tame</i> ® 2.4 EC Spray 10-2/3 fl. oz. (0.2 lb. ai)	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 <i>Tame</i> alone at 16 fl. oz./100 gals. See <i>Tame</i> label for instructions.	
Carnations Chrysanthemums Roses	Aphids Thrips	1/2 lb. (8 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 <i>Orthene</i> Turf, Tree & Ornamental Spray 97 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 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.

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.

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.

NOTE: The product is sold by weight and package is full when packed, and is inclined to settle.

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Manufactured for
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Made in U.S.A., Form 1302-E
EPA Reg. No. 59639-91

Information contained in this booklet is accurate at the time of printing. Since product testing is a continuous process, please read and follow the directions on the product label for the most current directions and precautionary statements.

Always check with your state to verify state registration status.

**For state registration and/or supplemental labels, please call or visit us online.
You may also find them at www.greenbook.net (C&P Press) and www.cdms.net.**

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