

5539/92

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number
59639-91

Date of Issuance:
MAR 18 1998

NOTICE OF PESTICIDE:
 X Registration
 Reregistration

Term of Issuance:
Conditional

Name of Pesticide Product:
Orthene 97 Pellets

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Valent USA Corporation
1333 N. California Blvd., Ste. 600
Walnut Creek, CA 94596

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes before you release the product for shipment:

- a. Add the designation, "EPA Reg. No. 59639-91".
- b. Add waterproof gloves to the personal protective equipment (PPE) statements for applicators and other handlers. This Worker Protection Standard (WPS) requirement is based on the acute dermal toxicity category III for the technical material which was cited in support of the subject registration.
- c. Add the statement, "Do not contaminate water by cleaning of equipment or disposal of wastes." as the third sentence in the ENVIRONMENTAL HAZARDS section.

Signature of Approving Official:

Date:

MAR 18 1998

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3. Submit the outstanding guideline studies listed on the attachments A and B for acephate and its metabolite, methamidophos by the specified submittal due dates.

4. Submit two copies of the revised final printed label before the product is released for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely,



Marilyn A. Mautz
Biologist
Insecticide-Rodenticide Branch
Registration Division (7504C)



ORTHENE[®] 97 Pellets

(SOLUBLE INSECTICIDE)

Active Ingredient

* Acephate (O,S-Dimethyl acetylphosphoramidothioate)

Inert Ingredient

* ORTHENE[®], Acephate

U.S. Pat. No. 5,464,623

By Wt.

97%

3%

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT PAGE FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

NET WEIGHT 1 POUND

59639-91

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ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAR 18 1998

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
59639-91

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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 pests to come into contact with treated areas until sprays have dried.

STATEMENT OF PRACTICAL TREATMENT: Acephate is an organophosphate, cholinesterase inhibitor.

If swallowed: Drink 1 or 2 glasses of water (or milk) and induce vomiting by touching the back of the throat with finger. If possible contact a physician, Poison Control Center, or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest emergency treatment center.

If in eyes: Wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor.

If on skin: Wash skin with plenty of soap and water.

If inhaled: Remove person from exposure area.

NOTE TO PHYSICIAN: Emergency information - call 1-800-892-0099. Acephate is cholinesterase inhibitor. If signs of cholinesterase inhibition appear, atropine is antidotal. 2-PAM may also be used in conjunction with atropine but should not be used alone.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

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

Mixers and Loaders must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and chemical-resistant headgear.

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. 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.

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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.

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 farm, 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.

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**DISCLAIMER, CONDITIONS OF SALE,
LIMITED WARRANTY
AND LIMITATION OF LIABILITY**

IMPORTANT: Read the entire Label including this Disclaimer, Limited Warranty and Limitation of Liability before using this product. If the terms are not acceptable, return the unopened product within 15 days of purchase.

RISKS OF USING THIS PRODUCT

It is impossible to eliminate all risks associated with the use of this product. Such 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, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, moisture conditions, irrigation practices, presence of other materials, cultural practices or the manner of use or application, all of which are factors beyond the control of Valent. All such risks shall be assumed by the Buyer. Valent shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on the label. User 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 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 described above.

DISCLAIMER OF ALL OTHER WARRANTIES

VALENT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. 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 EXCLUSIVE REMEDY OF THE USER OR 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.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer and User accept it, subject to the foregoing Disclaimer, Conditions of Sale, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

PROMPT NOTICE OF CLAIM

Valent must have prompt notice as soon as Buyer or User has reason to believe they may have a claim (not to exceed twenty-one days from date of application) so that an immediate inspection of the affected property and growing crops can be made. Unless Buyer and Users shall promptly notify Valent of any claims, they shall be barred from obtaining any remedy.

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.

DIRECTIONS:

SMALL VOLUME SPRAY EQUIPMENT

Preparation of ORTHENE Spray Mix Using a Small Fluid Ounce Measuring Cup		
Label Recommendation ORTHENE 97 Pellets in 100 Gallons of Water	Equivalent ORTHENE 97 Pellets in 20 Gallons of Water	Equivalent ORTHENE 97 Pellets in 1 Gallon of Water (tsp./Gal)
¼ lb.	1 oz.	⅓ tsp.
½ lb.	2 oz.	⅔ tsp.
¾ lb.	3 oz.	1 tsp.
1 lb.	4 oz.	1 ⅓ tsp.

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.

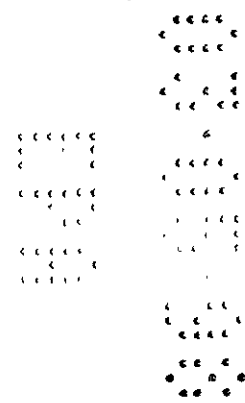
Plants	Insects	Amount of ORTHENE 97 Pellets Per Acre	Time of Application	Recommended Application
Nursery Stock [Non- bearing Deciduous Fruit Trees, Nut Trees, Vines] Almond Apricot Apple Cherry Grape Kiwi Pear Pistachio Plum Prune Walnut	Aphids Plant Bugs (Lygus) Thrips	½ to 1 lb. (8 to 16 oz.)	Apply as needed for control of existing populations.	Apply ORTHENE 97 Pellets in 50 to 200 gallons of water per acre by ground and not less than 5 gallons 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.

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

Plants	Insects	Amount ORTHENE 97 Pellets per Acre	Time of Application	Recommended Application
Non-bearing Citrus (including citrusd nursery seedlings)	Aphids Grasshoppers Katydid Mealybugs Orangedogs Plant Bugs (Lygus) Thrips Whiteflies	$\frac{1}{2}$ lb. (8 oz.)	Apply as needed for control of existing populations.	Apply ORTHENE 97 Pellets in 100 to 200 gallons 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.
	Citrus Blackfly	$\frac{1}{2}$ to $\frac{3}{4}$ 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.	Do not allow livestock to graze treated areas. DO NOT HARVEST citrus for one year after treatment.
	Ants, Including Imported Fire Ants and Harvester Ants	Foliar Spray $\frac{1}{2}$ lb. (12 oz.) Mound Treatment - Drench Method: Mix $\frac{1}{4}$ 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.	Apply as needed for control of existing populations.	



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SPECIALTY USES - NON CROP AREAS

Crop	Insects	Amount ORTHENE 97 Pellets Per Acre	Further Use Instructions
Non-Crop Areas (field borders, fencerows, roadsides, ditchbanks and borrow pits)	Grasshoppers	$\frac{1}{4}$ 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 $\frac{3}{4}$ oz. in 5 gals. of water. Apply 1 gal. of mix to each 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.

SPECIALTY USES CONTAINER GROWN NURSERY STOCK

Plants	Insects	Amount ORTHENE 97 Pellets Per 100 Gals.	Time of Application	Recommended Application
Container Grown Nursery Stock (Arborvitae Azalea Camellia Rhododren- dron Roses Viburnum Yew)	Black Vine Weevil Strawberry Root Weevil	$\frac{3}{4}$ 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 ORTHENE 97 Pellets per 100 gals. of solution so as to thoroughly drench the root system.
	Ants, Including Imported Fire Ants and Harvester Ants	$\frac{3}{4}$ lb. (12 oz.)	Apply as needed to control the pest.	

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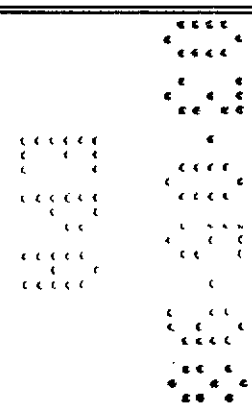
TREES AND SHRUBS

Plants	Insects	Amount ORTHENE 97 Pellets Per 100 Gals.	Time of Application	Recommended Application
Trees and Shrubs (Except Flowering Crabapple, see below)	Aphids Bagworms Birch Leafminer Tent Caterpillars* Lace Bugs Leafrollers	¼ lb. (4 oz.)	As the insects begin to appear.	Apply the specified amount of ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy Moth larvae. *Mist blower application. Adjust rates to 1 lb. per 100 gals. water for Gypsy Moth control and ¾ lb. per 100 gals. water for Tent Caterpillar control.
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae* Webworms	½ lb. (8 oz.)	As the insects begin to appear.	Do not apply to Huckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar and Viburnum suspensum.
	Scales (Crawlers)	½ 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.	Nursery crops. Before treating large plantings, spray only a few plants and observe two weeks for phytotoxicity.
	Ponderosa Pine Needle Miner	½ lb. (8 oz.)	Time of application is important. Consult your Farm Advisor or County Extension Agent.	Apply the specified amount of ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Grasshoppers	½ lb. (8 oz.)	As the grasshoppers begin to appear.	
	California Oakworm Cankerworms (Spring and Fall)	¼ to ½ 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 ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer.
	Nantucket Pine Tip Moth Larvae	¾ 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	¾ (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 ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Box Elder Bugs Budworms Leafhoppers Sawflies	¾ 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.	

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TREES AND SHRUBS (Continued)

Plants	Insects	Amount ORTHENE 97 Pellets Per 100 Gals.	Time of Application	Recommended Application
Trees and Shrubs (Except Flowering Crabapple, see below)	Elm Leaf Beetle (larvae)	1 lb. (16 oz.)	As the larvae begin to appear. ORTHENE will not prevent Elm Leaf Beetle eggs from hatching.	Apply the specified amount of ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Douglas Fir (Christmas Trees)	Douglas Fir Needle Midge	½ lb. (8 oz.) (½ 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 ORTHENE 97 Pellets in not less than 2 gals. of spray per acre by air or in 100 gals. of spray per acre by ground.
Flowering Crabapples	Aphids Leafrollers Tent Caterpillars	¼ lb. (4 oz.)	As the insects begin to appear.	<p>Apply the specified amount of ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer.</p> <p>Do not apply more often than 3 times in a growing season at a 4 week interval.</p> <p>Caution: Phytotoxicity has occurred on the following Crabapple varieties: Hopa, Ichonoski, Malusfloribunda, Pink Perfection, Red Wine and Snow Cloud.</p>
Crape Myrtle	Aphids	2 to 3 Level Tbs. (0.6 to 0.9 oz.) per 1 Tbs. of water.	As aphids begin to appear.	<p>Make a paint-on slurry by mixing the specified amount of ORTHENE 97 Pellets 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.</p>



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

Plant	Insects	Amount ORTHENE 97 Pellets Per 1000 Sq. Ft.	Time of Application	Recommended Application
Turfgrass Residential & commercial)	Fall Armyworm Yellow Striped Armyworm Southern Armyworm	0.4 to 0.9 oz. (1 to 2½ lbs. per acre)	As the insects appear. A repeat application at 2 week intervals may be necessary.	Apply the specified amount of ORTHENE 97 Pellets 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. (2½ to 5 lbs. per acre)		
	Chinch Bugs	0.9 to 1.8 oz. (2½ to 5 lbs. per acre)	Apply as needed for adult population knockdown (10 to 14 days).	Apply the specified amount of ORTHENE 97 Pellets 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. (2½ to 5 lbs. per acre)	Apply as needed for knockdown (7 to 10 days) only of existing adult populations.	
	Sod Webworm (Crambus 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 1 week intervals.	
	Leafhopper	¾ 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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COMMERCIAL TURFGRASS, LAWNS, AND OTHER RECREATIONAL TURFGRASS AREAS (Cont.)
DO NOT ALLOW LIVESTOCK TO GRAZE TREATED AREAS. DO NOT FEED TREATED GRASS TO LIVESTOCK.

Plant	Insects	Amount ORTHENE 97 Pellets Per 1000 Sq. Ft.	Time of Application	Recommended Application
Turfgrass (Residential & Commercial)	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.	<p>Apply the specified amount of ORTHENE 97 Pellets per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage.</p> <p>Apply during late afternoon or early evening hours and after an irrigation. Do not irrigate after application.</p> <p>The use of a lemon fragrance substance in the spray mix may enhance control by acting as a flushing agent and thus provide increased mole cricket contact with the ORTHENE 97 Pellets. 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.</p>
	Greenbug (Schizaphis graminum) Grasshoppers	0.4 oz. (1.0 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 97 Pellets. 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 ORTHENE 97 Pellets per 1,000 sq. ft. Use a minimum of 5 gallons water per 1000 square feet. Irrigate lightly after application (not more than ½ inch). Use the higher rate for severe infestations.
Dichondra	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 ORTHENE 97 Pellets per 1,000 sq. ft. Use a minimum of 15 gals. of water per 1,000 sq. ft. to obtain good coverage.

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GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS

Plant	Insects	Amount ORTHENE 97 Pellets Per 100 Gals.	Time of Application	Recommended Application
Roses	Leafrollers	½ to ¾ 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 ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Foliage Plants, Anthuriums, Cacti, Orchids, Poinsettia	Aphids	½ lb. (8 oz.)	As aphids begin to appear.	Apply the specified amount of ORTHENE 97 Pellets 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	½ 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.	Caution: Phytotoxicity has occurred on the following foliage plants: <i>Blechnum gibbum</i> , <i>Cissus antarctica</i> , <i>Ficus triangularis</i> , <i>Fittonia verschaffeltii</i> , <i>Maranta leuconeura kerchoveana</i> , <i>Pachystachya lutea</i> , <i>Plectranthus australis</i> , <i>Polypodium aureus</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 ORTHENE 97 Pellets on Poinsettias after bract formation may result in phytotoxicity on certain varieties.
	Scales (Crawlers)	½ 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)	¼ lb. (4 oz.) plus TAME 2.4 EC Spray 10 ½ 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 TAME alone at 16 fl. oz./100 gals. See TAME label for instructions.	For sweet potato whitefly control, apply the specified amount of ORTHENE 97 Pellets plus TAME 2.4 EC Spray as a tank mix at a volume necessary to obtain good coverage. Follow the TAME label for specific instructions on the alternation of TAME plus ORTHENE and TAME alone and the rotation instructions to avoid potential resistance.

GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS (Continued)

PLANTS	INSECTS	Amount ORTHENE 97 Pellets Per 100 Gals.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Carnations, Chrysanthemums, Roses	Aphids, Thrips	½ lb. (4 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 97 Pellets 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, Price, Showoff, Statesman, Tally Ho, Westward Ho, and Wild Heray. Before treating large Chrysanthemum plantings, spray only a few plants and observe two weeks for varietal phytotoxicity. Do not apply to Chrysanthemums and Roses with open flowers.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

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COMMERCIALY TREATED COTTONSEED

PEST	AMOUNT PER 100 LBS COTTONSEED	EFFICACY	ADDITIONAL USE INSTRUCTIONS
Cotton Aphids Thrips	6.4 oz. (4/10 lb.)	Gives effective reduction of thrips and cotton aphids for up to three weeks after planting	ORTHENE 97 Pellets contain a water-soluble systemic insecticide which helps to reduce injury to cotton seedlings by several insects. ORTHENE 97 Pellets can be mixed in the slurry tank with most of the fungicide seed treatments in common use. ORTHENE 97 Pellets can also be applied as a separate treatment using enough water to give adequate coverage of the seed. ORTHENE 97 Pellets dissolve quickly in water with a minimum of agitation.
Black (Greasy) Cutworm	6.4 oz. (4/10 lb.)	Gives effective reduction of Black (Greasy) Cutworm from planting through the 3 rd to 4 th leaf stage of development. When planting into fields where large cutworms are present (5 th instar and larger) economic damage may occur	

USE PRECAUTIONS: When using formulations that do not contain dye, compliance with 21 CFR Chapter 1, Section 2.5 requires that all seed treated with a pesticide must be colored to distinguish from, and prevent subsequent inadvertent use as, food for man or feed for animals.

Treated seed must not be used for, or mixed with, food or animal feed, or processed for oil. Seed treated with ORTHENE 97 Pellets may be considered adulterated under state and federal laws if sold or shipped as food or feedstuffs. Seed commercially treated with ORTHENE 97 Pellets must be labelled as follows: "TREATED SEED DO NOT USE FOR FOOD, FEED OR OIL."

Not for use on agricultural establishments in hopper-box, planter-box, slurry-box or other seed treatment applications at, or immediately before, planting.

Observe all precautions and limitations on labelling of all products used in mixtures.

TOBACCO

TOBACCO TRANSPLANT WATER APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 97 Pellets Per Acre	Further Use Instructions
Tobacco	Cutworms Flea Beetle Green Peach Aphid Tobacco Aphid Tobacco Thrips	¾ lb. (12 oz.)	<p>Provides control of early season flea beetles, green peach aphids, tobacco aphids, and cutworms for approximately 3 to 4 weeks after transplanting. For later season control of these insects, apply a foliar spray of ORTHENE 97 Pellets.</p> <p>Apply in a minimum of 100 gals. of transplant water per acre.</p> <p>Do not apply more than ¾ lb. ORTHENE 97 Pellets per acre as a transplant water application as some phytotoxicity may occur.</p> <p>Do not apply more than 4½ lbs./A (4 lbs. ai) per season. This includes the use of Orthene in transplant water, plant bed, soil, float bed (greenhouse), and foliar applications.</p>

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TOBACCO FOLIAR APPLICATION (EXCEPT CA)

TOBACCO FOLIAR APPLICATION TABLE				
Crop	Insects	Amount ORTHENE 97 Pellets Per Acre	Further Use Instructions	Days to Harvest
Tobacco (Flue-Cured, Air Cured, Dark Fire Cured)	Grasshoppers	¾ to ½ lb (4 to 8 oz.)	Apply in 10 to 50 gals. water per acre with ground equipment or a minimum of 3 gals. per acre by air.	3
	Green Peach Aphid Flea Beetle Hornworm Tobacco Thrips	½ lb. (8 oz.)	Apply on a 7 day schedule or as needed.	
	Tobacco Aphid Vegetable Weevils Stinkbugs	½ to ¾ lb. (8 to 12 oz.)	Do not apply more than 4½ lbs./A (4 lbs. ai) per season. This includes the use of Orthene in transplant water, plant bed, soil, float bed (greenhouse), and foliar applications.	
	Budworm Cabbage Looper Cutworm	¾ lb. (12 oz.)		

TOBACCO PLANT BED APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 97 Pellets Per Acre	Further Use Instructions
Tobacco Bed Treatment	Flea Beetle Green Peach Aphid Tobacco Aphid Cutworm	$\frac{3}{4}$ lb. (12 oz.)	<p>Apply to foliage at the equivalent of $\frac{3}{4}$ tablespoon in 1 gal. of water per every 1,000 sq. ft. of bed. Apply evenly to insure thorough coverage.</p> <p>Do not apply more than 4$\frac{1}{2}$ lbs./A (4 lbs. ai) per season. This includes the use of Orthene in transplant water, plant bed, soil, float bed (greenhouse), and foliar applications.</p>

TOBACCO GREENHOUSE APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 97 Pellets Per Acre	Further Use Instructions
Tobacco	Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	$\frac{3}{4}$ lb. (12 oz.)	<p>Apply to foliage at the equivalent of $\frac{3}{4}$ tablespoon in 3 gals. water per every 1,000 sq. ft. of bed. Apply evenly to insure thorough coverage.</p> <p>Note: Floatbed water should be disposed of in the transplanted field in either transplant water or foliar spray.</p> <p>Do not apply more than 4$\frac{1}{2}$ lbs./A (4 lbs. ai) per season. This includes the use of Orthene in transplant water, plant bed, soil, float bed (greenhouse), and foliar applications.</p>

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TOBACCO SOIL APPLICATION (EXCEPT CA)

Crop	Insects	Amount ORTHENE 97 Pellets	Further Use Instructions	Days to Harvest
Tobacco	Ants, Including Imported Fire Ants and Harvester Ants	Mound Treatment- Drench Method: Mix ¾ oz. in 5 gals. of water. Apply 1 gal. of mix to each mound area by sprinkling the mound until it is wet and treat a four (4) foot diameter circle around the mound.	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest. Treat maximum of 13 mounds per acre. Do not treat more than once per season. Do not apply more than 4½ lbs./A (4 lbs. ai) per season. This includes the use of Orthene in transplant water, plant bed, soil, float bed (greenhouse), and foliar applications.	3

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 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.

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EPA Reg. No. 59639- EPA Est. No. _____