



59639-91

4-25-2007

457

 <p style="text-align: center;">U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460</p> <p style="text-align: center;">NOTICE OF PESTICIDE: <input type="checkbox"/> Registration <input checked="" type="checkbox"/> Reregistration (under FIFRA, as amended)</p>	EPA Reg. Number: 59639-91	Date of Issuance: APR 25 2007
	Term of Issuance:	
	Name of Pesticide Product: Orthene 97 Pellets	
Name and Address of Registrant (include ZIP Code): Valent U.S.A. Corporation 1600 Riviera Avenue, Suite 200 PO Box 8025 Walnut Creek, CA94596		
<p>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.</p> <p>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.</p> <p>Based on your response to the Reregistration Eligibility Decision (RED) for Acephate, EPA has reregistered the product listed above. This action is taken under the authority of section 4(g)(2)(C) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.</p> <p>Generic data requirements that have been identified in the RED as confirmatory data for the active ingredient contained in the subject product will continue to be tracked and assessed in the Agency's continual reassessment of pesticides.</p> <p>The labeling for the subject product submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable provided you submit one (1) copy of the final printed label incorporating the following corrections before you release the product for shipment. Products shipped after 12 months from the date of this Notice must bear the new revised label.</p> <p>A stamped copy of the label is enclosed for your records.</p>		
Signature of Approving Official: 	Date: APR 25 2007	

2/51

1. Relocate the statement "As soon as possible, wash thoroughly and change into clean clothing." back into the User Safety Requirements box as the last sentence as it appears on the previous submitted label. Please note that item number two in our previous letter dated November 30, 2006 did not include this statement among those to be removed from this box.

2. Correct the Storage and Disposal statements as cited below.

a. Remove the sub heading "Prohibitions"

b. Relocate the statement "Open dumping is prohibited" to the more appropriate location under the subheading Pesticide Disposal.

3. Correct the warranty statements under "Prompt Notice of Claim" as specified below. Refer to the enclosed examples of warranty statements.

a. Add the phrase "to the extent consistent with applicable law allows such requirements" to the beginning of the sentence "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 ____."

b. Add the phrase "to the extent consistent with applicable law" to the beginning of the sentence "If Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy."

4. Correct the ant mound treatment claims for non-crop areas (page 39) and turfgrass (page 47) as cited below.

a. The drench method ant mound treatment claim for the non-crop areas "ants (including fire ants and harvester)" must be revised to either 1) limit the ant claim to fire ants and harvester ants or 2) add the restriction "Do not use on turf" and change the claim to "ants (excluding carpenter and pharaoh)".

b. The dry method ant mound treatment claim for the non-crop areas "ants (including fire ants and harvester)" must be revised by adding the restriction "Do not use on turf" and changing the claim to "ants (excluding fire, harvester, carpenter and pharaoh)".

c. Remove the dry method ant mound treatment claim for turfgrass ("imported fire ants and harvester ants").

These revisions are needed because the unqualified use site "non-crop" does not necessarily exclude all turf areas and, as stated in the acephate RED, use on turf is limited to golf course and sod farm turf and to fire and harvester ant mound treatment. Additionally, the available ant efficacy data are only supportive of a mound treatment for fire ant and harvester ant. No supporting data for the use of a pellet formulation such as the subject product as a dry mound treatment have been provided. The pellet formulation represents a new formulation type for this application method, for which efficacy data requirements must be addressed.

5. Add "and tobacco (floatbed application)" to the last sentence of the general use restrictions section on page 7 so it reads as follows: "For greenhouse use, use is limited to commercial greenhouses for use on ornamental, floral and foliage plants and tobacco (floatbed application)."

6. Make the correction cited below in the spray drift management labeling (page 7).

Remove the second paragraph beginning with "Do not apply this product ___" and ending with "___ to minimize drift."

7. Correct the ant mound treatment applications for non-bearing citrus (pages 24 and 37), and the tobacco table (page 35) as specified below. Refer to item 4 of this letter.

a. Correct the drench method mound treatment claim for "ants (including fire ants and harvester)" to read as follows: "ants (excluding carpenter and pharaoh)";

b. The dry method ant mound treatment claim on pages 35 and 37 "ants (including fire ants and harvester)" must be revised by changing the claim to "ants (excluding fire, harvester, carpenter and pharaoh)".

8. Correct the ant claim for use on non-bearing citrus as a foliar spray (page 37) from "ants (including imported fire ants and harvester ants)" to "ants (excluding fire, carpenter, harvester and pharaoh)". Based on the available efficacy data, the only supported public health and structural ant claims are fire and harvester ants as a mound treatment.

9. Remove the term "Recommended" or "recommendation" which appears in a column heading for several tables ("Recommended Application") and the small volume spray equipment table ("label recommendation"). Acceptable wording would be "Further application instructions" or "Further use directions" for the use tables and "label rate" for the equipment table.

10. Clarify the use precaution "Do not apply more than ___" appearing in the golf course turfgrass use (page 44) so it is clear the amount is per single application; i.e. "Do not apply more than ___ per single application."

11. As specified in item number 31 of our November 30, 2006, letter, the statement in the sod turfgrass use table on page 46 ("Do not apply more than 4 lbs/A in a single application") must be removed. The maximum single application rate is 3 lbs a.i./A (3.1 lbs product) as cited in the acephate RED and as specified elsewhere in the table.

12. The conflict between the maximum label application rates for the ornamental plants tables (pages 49 for the cut flowers; and pages 50 and 51 for the non-cut flowers) and the added maximum rate restrictions specified in the acephate RED must be resolved. The maximum rates now appearing on the label are lower than the maximum rates specified in the

4/57

acephate RED. The application rate specified in the cut flower table is ½ lb of product per 100 gallons water whereas the acephate RED restrictions are: "Do not apply more than 0.75 lb/A ORTHENE 97 Pellets per 100 gals. of water". The maximum application rate now specified on the label for non-cut flowers is ¾ lb of product per 100 gals. of water whereas the RED restrictions are: "Do not apply more than 1.0 lb of product per 100 gals. of water per acre."

This conflict may be resolved by the revisions described below.

For the cut flower table, remove the statement "Do not apply more than 0.75 lb/A ORTHENE 97 Pellets per 100 gals. of water" and specify the maximum application rate as ½ lb product per 100 gallons per acre. For the non-cut flowers tables, remove the statement "Do not apply more than 1.0 lb of product per 100 gals. of water per acre." and specify the maximum application rate as ¾ lb product per 100 gallons water per acre.

13. Correct the Ornamental Trees and Shrubs use table (pages 41-43) as cited below.

a. Add the wording "and Douglas Fir" to the Plants column so that the text reads as follows: Trees and Shrubs (except Flowering Crabapple and Douglas Fir, see below)

b. Correct the mandatory language ("Do not apply to Huckleberry, Balm of Gilead, ___") to language that is advisory in nature. Refer to PR Notice 2000-5 for guidance. Appropriate advisory language for this wording would be, for example, "Valent does not advise application be made to Huckleberry, Balm of Gilead, ___ as it may result in phytotoxicity in these plants."

SLNs

Based on the registrant's response to the acephate IRED, EPA has reregistered the use of acephate for the Special Local Need (SLN) registrations associated with this parent product, subject to the label corrections for certain of the SLNs as specified below. A copy of the label for each of the SLNs is attached.

Submit one copy of the corrected label for those SLNs for which label corrections are needed for our file. When submitting each label to the State for their comment/approval, please request the State to forward a copy of the revised SLN label (including their additions, if any) to the Agency for official confirmation of their receipt and approval (since Agency approval of the States' notification is required to finalize the action).

SLN OH000007

Add an appropriate dilution rate for application of the product.

SLN OR010035

Correct the warranty statements under "Prompt Notice of Claim" as specified in item 3 of this letter.

5/57

SLN TN000001

As specified in our letter of November 30, 2006, correct the label as cited below.

-Add the following text to the use directions:

“Make transplant-water applications using mechanical transplant equipment only. Using such equipment, the insecticide/water mixture is mechanically applied directly into the soil along with the transplanted plants.”

-Correct the SLN number from TN200001 to TN000001. Please note that our files show this to be the correct number for the SLN. If it is your intent that the SLN be replaced by the TN050001 referenced in your letter of January 11, 2007, please submit your cancellation request and send a copy of your request to the State.

SLNs CO00006, NJ000005, OR000020, TX000005, UT000003, WA000021 and WI000003

There are no label corrections needed for these SLNs.

The Agency has completed the cumulative assessment for the organophosphate pesticides (OPs) and finalized the Interim Reregistration Eligibility Decisions (IREDs) for the OP pesticides. The assessment and supporting documents may be found on the Agency's web site at www.epa.gov/pesticides/cumulative and in the docket (EPA-HQ-OPP-2006-0618).



Meredith F. Laws, Chief
Insecticide-Rodenticide Branch
Registration Division (7504P)

Enclosures: Stamped label
Examples of warranty statements
SLN labels

cc: State Pesticide Regulatory Agencies for the States;
CO, NJ, OH, OR, TN, TX, UT, WA, and WI (copy of Notice and SLN label)

457



ACCEPTED
with COMMENTS
in EPA Letter Dated:
APR 25 2007
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
As amended, for the pesticide
Registered under EPA Reg. No.
59639-91

ORTHENE® 97 Pellets

(SOLUBLE INSECTICIDE)

Active Ingredient	By Wt.
*Acephate.....	97.4%
Other Ingredient.....	2.6%
Total.....	100.0%

*O,S-Dimethyl acetylphosphoramidothioate

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

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

NET WEIGHT 1 POUND

7/57

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed.

FIRST AID

Acephate is an organophosphate, cholinesterase inhibitor.

- If swallowed:**
- Call a 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 or clothing:**
- Take off contaminated clothing.
 - Rinse skin immediately with plenty of water for 15-20 minutes.
 - Call a poison control center or doctor for treatment advice.
- If inhaled:**
- Move person to fresh air.
 - If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by 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.

8/57

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Mixers, Loaders, Applicators and Other Handlers must wear: Long sleeved shirt and long pants, chemical-resistant gloves such as Butyl rubber ≥ 14 mils, Nitrile rubber ≥ 14 mils or Neoprene ≥ 14 mils and socks plus shoes.

In addition, all mixers and loaders and all applicators using low pressure hand wand application equipment must wear: A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approved number prefix TC-21C or a NIOSH-approved respirator with any N, R, P or HE filter. **See Engineering Controls for additional requirements.**

Engineering Controls: Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

The use of human flaggers is prohibited.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. As soon as possible, wash thoroughly and change into clean clothing.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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.

ENVIRONMENTAL HAZARDS:

This pesticide is toxic to birds. For terrestrial uses, 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 when cleaning equipment or disposing of equipment washwaters. Cover or soil-incorporate spills.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permitted and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

This product and its degradate are highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

9/57

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, chemical resistant gloves made of any waterproof material and shoes plus socks.

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, nurseries or greenhouses:

Do not enter or allow others to enter until sprays have dried.

[Worker Protection exclusionary statement for use only with Cotton Seed Treatment use.]

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

10/59

**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. 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 TO THE FULLEST EXTENT ALLOWED BY LAW, 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

To the fullest extent allowed by law, Valent or Seller is not 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. TO THE FULLEST EXTENT ALLOWED BY LAW, 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 THE 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.

TABLE OF CONTENTS

GENERAL USE RESTRICTIONS.....

GENERAL INFORMATION.....

MIXING INSTRUCTIONS.....

SPRAY DRIFT MANAGEMENT.....

BEANS AND LIMA BEANS - Dry and Succulent Forms..... Table 1

CELERY..... Table 2

COLE CROPS - Brussels Sprouts and Cauliflower..... Table 3

COMMERCIALY TREATED COTTONSEED..... Table 4

COTTON..... Table 5

COTTON TANK MIXES..... Table 6

COTTON TANK MIXES WITH PYRETHROIDS..... Table 7

CRANBERRY..... Table 8

HEAD LETTUCE - Crisphead Type Only..... Table 9

MINT - Peppermint and Spearmint..... Table 10

NON-BEARING CITRUS - Directions for Use in Agricultural Settings..... Table 11

NON-CROP AREAS - Field Borders, Fencerows, Roadsides, Ditchbanks, Borrow Pits..... Table 12

NON-CROP AREAS - Wasteland..... Table 13

PEANUTS..... Table 14

PEPPERS - Bell..... Table 15

PEPPERS - Non-Bell..... Table 16

SOYBEAN..... Table 17

TOBACCO - Transplant Water Application (Except CA)..... Table 18

TOBACCO - Foliar Application (Except CA)..... Table 19

TOBACCO - Plant Bed Application (Except CA)..... Table 20

TOBACCO - Greenhouse Application (Except CA)..... Table 21

TOBACCO - Soil Application (Except CA)..... Table 22

SMALL VOLUME SPRAY EQUIPMENT.....

NON-BEARING CITRUS.....

NURSERY STOCK - Non-Bearing Deciduous Fruit Trees, Nut Trees and Vines.....

NON CROP AREAS.....

CONTAINER GROWN NURSERY STOCK.....

ORNAMENTAL TREES AND SHRUBS.....

GOLF COURSE TURFGRASS.....

SOD FARM TURFGRASS.....

MOUND TREATMENT OF FIRE ANTS AND HARVESTER ANTS IN TURFGRASS.....

OUTDOOR AND PERIMETER SPRAY.....

ORNAMENTAL PLANTS GROWN FOR CUT FLOWER PRODUCTION.....

GREENHOUSE (Commercial only) AND OUTDOOR ORNAMENTAL PLANTS, FLORAL CROPS,
GROUND COVERS AND FOLIAGE PLANT CROPS - Plants Not Produced for Cut Flowers.....

STORAGE AND DISPOSAL.....

GENERAL USE RESTRICTIONS

- For use on turf, use limited to sod farms and golf courses, except when applying to mound or spot treatment for fire ant and harvester ant control.
- Do not apply with low pressure handwand except for control of fire ants as a mound treatment and when used on ornamental trees, shrubs and floral plants grown for non-agricultural or non-commercial use.
- Not for indoor residential use. For greenhouse use, use is limited to commercial greenhouses for use on ornamental, floral and foliage plants.

CHEMIGATION

Apply to Cranberries only by sprinkler irrigation systems. Do not apply by chemigation to any other crop, or this crop using any other type of irrigation system.

GENERAL INFORMATION

MIXING INSTRUCTIONS

Thoroughly clean all sprayer components prior to mixing. Add approximately 1/2 of the required amount of water to the spray tank and begin agitation. Add the required amount of ORTHENE 97 Pellets insecticide and mix thoroughly. Then add other tank mix partners or foliar feed additives and the remaining water. Maintain agitation during filling and spraying to ensure a uniform spray mixture.

For application equipment which has minimal agitation, such as tobacco transplant water equipment, proper attention to mixing the ORTHENE 97 Pellets product should be given. With tobacco transplant water applications, the ORTHENE 97 Pellets product should be premixed in water to form a slurry prior to putting the product into the transplant water applicator. If premixing is not done, then adequate time should be allowed for the product to dissolve in the transplant water prior to beginning application.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions, (e.g., wind directions, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator and grower must evaluate all factors and make appropriate adjustments when applying this product.

Do not apply this product in a manner that allows spray to drift and cause adverse effects to humans, animals or other non-target sites. Avoiding spray drift at the application site is the responsibility of the applicator. Applicators should evaluate conditions existing at the time of application and make appropriate adjustments to reduce drift. Observe the following recommendations to minimize drift:

- All aerial, ground and air-assisted/airblast application equipment must be properly maintained and calibrated using water as carrier. [*This sentence to be used for products NOT containing "NON-CROP AREAS – Wasteland": Do not apply this product as an ultralow (ULV) spray, or in any carrier other than water. [This sentence to be used for products containing "NON-CROP AREAS – Wasteland": Do not apply this product as an ultralow (ULV) spray, or in any carrier other than water, except as specified in the instructions for "NON-CROP AREAS – Wasteland".]*]
- Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Do not apply at wind speeds greater than 10 mph at the application site.
- Make applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph).
- Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage.
- For aerial applications, do not apply at heights greater than 10 feet (consistent with flight safety).
- For airblast applications, direct spray above foliage and turn off outward pointing nozzles at row ends and outer rows.
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

- For ground applications, do not apply at heights greater than 4 feet.

BEANS AND LIMA BEANS - Dry and Succulent Forms

GENERAL USE PRECAUTIONS:

- Do not feed treated vines to livestock.
- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 Pellets per crop cycle.
- For repeat applications use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

TABLE 1. BEANS AND LIMA BEANS - Dry and Succulent Forms - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Ground: 20 to 100 gals./A of spray. By Air: Minimum of 2 gals./A of spray.	Fleahoppers Grasshopper	1/4 to 1/2 lb. (4 to 8 oz.)	Apply when eggs or insects first appear.	14 (snapbeans - succulent or dry beans)
	Aphid (excluding Black Bean Aphid) Bean Leaf Beetle Bean Leafroller Cabbage Looper Cutworm Green Cloverworm Leafhoppers Mexican Bean Beetle Plantbugs (Lygus) Soybean Looper Thrips Whitefly (except Sweetpotato or Silverleaf Whitefly)	1/2 to 1.0 lb. (8 to 16 oz.)	Use higher rates for severe insect infestations.	1 (lima beans - succulent form)
	Amyworm (excluding Beet Armyworm) Corn Earworm European Corn Borer	3/4 to 1.0 lb. (12 to 16 Oz.)		

14/57

CELERY

GENERAL USE PRECAUTIONS

- All celery must be trimmed (tops removed) before shipment for use.
- Do not use trimmed tops for food or feed.
- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 Pellets per crop cycle.
- For repeat applications use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

TABLE 2. CELERY - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Ground: 50 to 100 gals./A of spray. By Air: Minimum of 5 gals./A of spray.	Green Peach Aphid	1/2 to 1.0 lb. (8 to 16 oz.)	Apply when eggs or insects first appear.	21
	Cabbage Looper Fall Armyworm	1.0 lb. (16 oz.)		

15/59

COLE CROPS – Brussels Sprouts and Cauliflower

GENERAL USE PRECAUTIONS

- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 Pellets per crop cycle.
- Do not feed trimmings to livestock or allow animals to graze in treated areas.
- For repeat applications use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

TABLE 3. COLE CROPS - Brussels Sprouts and Cauliflower - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Ground: 25 to 150 gals./A of spray. By Air: Minimum of 5 gals./A of spray.	Green Peach Aphid	1/2 to 1.0 lb. (8 to 16 oz.)	Use the high rate when heavy infestations of Aphid are present. Apply when eggs or insects first appear.	14
	Cabbage Looper Diamondback Moth Larvae Imported Cabbage Worm	1.0 lb. (16 oz.)	Diamondback Moth Larvae: This insect has demonstrated an ability to develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current recommended control practices for this insect.	

COMMERCIALY TREATED COTTONSEED

GENERAL 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 pesticide must be colored to distinguish from, and prevent subsequent inadvertent use as, food for human, 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."
- Observe all precautions and limitations on labelling of all products used in mixtures.

TABLE 4. COMMERCIALY TREATED COTTONSEED – Directions for Use

PESTS CONTROLLED	AMOUNT PER 100 LBS. COTTONSEED	EFFICACY	REMARKS
Cotton Aphid Thrips (including Western Flower Thrips)	6.4 oz. (0.4 lb.)	Gives effective reduction of Thrips and cotton Aphid for up to 3 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. (0.4 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 Cutworm are present (5 th instar and larger) economic damage may occur.	

17/57

COTTON

GENERAL USE PRECAUTIONS

- Do not use treated seed for food or feed purposes or process for oil.
- Do not feed treated forage or gin trash to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE in commercial seed treatment, in furrow spray, and foliar applications.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

For Aerial Application:

- Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA.
- Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA.

TABLE 5. COTTON - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS ¹	DAYS TO HARVEST
IN FURROW By Ground: 3 to 5 gals./A of spray.	Aphid (excluding Cotton Aphid in AZ & CA) Black (Greasy) Cutworm (except CA) Thrips (including Western Flower Thrips)	1/2 to 1.0 lb. (8 to 16 oz.) NOTE: For the Blacklands of Texas use 1.0 lb./A ORTHENE 97 Pellets.	Use flat fan nozzles for in furrow application. Align nozzles to ensure good spray deposition into the seed furrow. Cone type nozzles are not recommended since unacceptable spray deposition may occur. Securely fasten spray system tubing to furrow opener and check frequently to ensure proper positioning and operation. ORTHENE 97 PELLETS can be mixed with fungicides that are sprayed in furrow for disease control.	
By Air: 3 to 10 gals./A of spray (minimum of 5 gals./A in AZ & CA). For Aerial Application <ul style="list-style-type: none"> • Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA. • Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA. 	Plantbugs (Lygus)	1/4 to 1.0 lb. (4 to 16 oz.) 3/4 to 1.0 lb. (AZ & CA)	Apply when eggs or insects first appear. Use highest rate for Lygus adults that have migrated into cotton.	21

¹For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

TABLE 5. COTTON – Directions for Use continued

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS ¹	DAYS TO HARVEST
FOLIAR By Ground: 10 to 25 gals./A of spray. By Air: 3 to 10 gals./A of spray (minimum of 5 gals./A in AZ & CA). For Aerial Application • Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA. • Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA.	Fleahopper	1/4 lb. (4 oz.)	Apply when eggs or insects first appear.	21
	Cotton Aphid (excluding AZ & CA)	1/2 to 1.0 lb. (8 to 16 oz.)	This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations.	21
	Whitefly (excluding Sweetpotato Whitefly/Silverleaf Whitefly)	1/2 to 1.0 lb. (8 to 16 oz.)		21
	Armyworm (excluding Beet Armyworm) Cabbage Looper	1.0 lb. (16 oz.)	Apply when eggs first appear.	21
	Bollworm Tobacco Budworm Adults Larvae Eggs/DEADHATCH®	1/2 to 1.0 lb. (8 to 16 oz.) (East of Rockies) 1.0 lb. (AZ & CA) 1/4 to 1/2 lb.	Early Season: Use 1/2 lb. /A for light infestation. Mid and Late Season: Use 3/4 to 1.0 lbs./A for moderate to severe infestations. Apply when eggs first appear. Moths of budworm larvae are controlled by direct contact with spray. Moth kill is most likely to occur when late evening applications are made. DEADHATCH: Control of emerging larvae by consumption of treated egg casings.	21
	Stinkbugs	3/4 lb. (12 oz.)	Apply when eggs first appear.	21

¹For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

continued

19/57

TABLE 5. COTTON - Directions for Use continued

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS ¹	DAYS TO HARVEST
FOLIAR By Ground: 10 to 25 gals./A of spray. By Air: 3 to 10 gals./A of spray (minimum of 5 gals./A in AZ & CA). For Aerial Application <ul style="list-style-type: none"> • Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA. • Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA. 	Pink Bollworm (AZ & CA)	1.0 lb. (16 oz.)	Apply when insects first appear.	21
	Cutworm	3/4 lb. (12 oz.)	Ground application is recommended. Aerial applications are less effective, but may be used. Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant. Apply when insects first appear or damage is first noted.	21

¹For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

RESISTANCE MANAGEMENT

Cotton pest control programs should employ a properly designed resistance management strategy. Such resistance management strategies include mixture or rotation of alternative classes of chemistry including organophosphates, carbamates, pyrethroids or insect growth regulators. Consult your state or area agricultural extension service for local resistance management strategies and advice on alternative insecticides.

20/157

COTTON TANK MIXES

GENERAL USE PRECAUTIONS:

- Do not feed treated forage or gin trash to livestock.
- Do not allow livestock to graze on treated areas.
- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE in commercial seed treatment, in-furrow spray, and foliar applications.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

For Aerial Application:

- Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA.
- Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA.

Always read and follow all label directions when using any pesticide alone or in tank mix combinations. Observe all restrictions and precautions which appear on all product labels. The most restrictive labeling applies when using a tank mix.

TABLE 6. COTTON TANK MIXES - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	ORTHENE 97 PELLETS AND TANK MIX PARTNER	AMOUNT OF ORTHENE 97 PELLETS + TANK MIX PARTNER PER ACRE	REMARKS ¹	DAYS TO HARVEST
<p>FOLIAR</p> <p>By Ground: 10 to 25 gals./A spray.</p> <p>By Air: 3 to 10 gals./A of spray (minimum 5 gals./A in CA).</p> <p>For Aerial Application</p> <ul style="list-style-type: none"> • Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA. • Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA. 	Sweetpotato Whitefly (Silverleaf Whitefly)	<p>ORTHENE 97</p> <p style="text-align: center;">+</p> <p>DANITOL® 2.4 EC</p>	<p>1/2 to 1 lb. (8 to 16 oz)</p> <p style="text-align: center;">+</p> <p>8 to 16 fl. oz.</p>	<p>Follow all applicable directions, restrictions and precautions on the EPA registered label for Danitol 2.4 EC Spray.</p> <p>Use a minimum application rate of 10 2/3 fl. oz./A Danitol (0.2 lb. ai./A) in CA and AZ.</p>	21

¹For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

continued

21/57

TABLE 6. COTTON TANK MIXES – Directions for Use continued

APPLICATION METHOD	PESTS CONTROLLED	ORTHENE 97 PELLETS AND TANK MIX PARTNER	AMOUNT OF ORTHENE 97 PELLETS + TANK MIX PARTNER PER ACRE	REMARKS ¹	DAYS TO HARVEST
<p>FOLIAR</p> <p>By Ground: 10 to 25 gals./A spray.</p> <p>By Air: 3 to 10 gals./A of spray (minimum 5 gals./A in CA).</p> <p>For Aerial Application</p> <ul style="list-style-type: none"> • Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA. • Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA. 	<p>Armyworm (excluding Beet Armyworm)</p> <p>Boltworm</p> <p>Cabbage Looper</p> <p>Cotton Aphid</p> <p>Cutworm</p> <p>Fleahopper</p> <p>Grasshopper</p> <p>Pink Bollworm</p> <p>Plantbugs (Lygus, Mirids)</p> <p>Salt Marsh Caterpillar</p> <p>Thrips (Including Western Flower Thrips)</p> <p>Tobacco Budworm</p> <p>Whitefly (Excluding Sweetpotato/Silverleaf Whitefly)</p>	<p>ORTHENE 97</p> <p style="text-align: center;">+</p> <p>LORSBAN® 4E</p>	<p>1/4 to 1.0 lb. (4 to 16 oz.)</p> <p style="text-align: center;">+</p> <p>1 to 2 pts.</p>	<p>Follow all applicable directions, restrictions and precautions on the EPA registered label for LORSBAN 4 E.</p> <p>Cutworm: Use 3/4 lb./A of ORTHENE 97.</p> <p>By Ground: Ground application is recommended.</p> <p>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</p> <p>By Air: Aerial applications are less effective, but may be used.</p> <p>Apply when insects first appear or when damage is first noted.</p>	<p>21</p>

¹For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

RESISTANCE MANAGEMENT

Cotton pest control programs, especially those for control of Silverleaf Whitefly populations, should employ a properly designed resistance management strategy. Such resistance management strategies include mixture or rotation of alternative classes of chemistry including organophosphates, carbamates, pyrethroids or insect growth regulators. Consult your state or area agricultural extension service for local resistance management strategies and advice on alternative insecticides.

22/57

COTTON TANK MIXES WITH PYRETHROIDS

GENERAL USE PRECAUTIONS

- Do not feed gin trash or treated forage to livestock.
- Do not allow livestock to graze on treated areas.
- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE in commercial seed treatment, in furrow spray and foliar applications.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

For Aerial Application:

- Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA.
- Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA.

Synthetic Pyrethroids should be used within the guidelines of state and/or regional resistance management programs and recommendations.

Always read and follow all label directions when using any pesticide alone or in tank mix combinations. Observe all restrictions and precautions, which appear on all product labels. The most restrictive labeling applies when using a tank mix.

24/57

TABLE 7. COTTON TANK MIXES WITH PYRETHROIDS – Directions for Use continued

APPLICATION METHOD	PESTS CONTROLLED	ORTHENE 97 PELLETS AND TANK MIX PARTNER	AMOUNT OF ORTHENE 97 PELLETS + TANK MIX PARTNER PER ACRE	REMARKS ¹	DAYS TO HARVEST
FOLIAR By Ground: 10 to 25 gals./A spray. By Air: 3 to 5 gals./A spray (minimum 5 gals./A in CA). See aerial remarks for Cutworm. For Aerial Application <ul style="list-style-type: none"> Do not apply more than 1 lb./A ORTHENE 97 Pellets per application to cotton grown in AZ and CA. Do not apply more than 3/4 lb./A ORTHENE 97 Pellets per application to cotton grown in all other states except AZ and CA. 		ASANA® XL*	Refer to the ASANA XL approved label for use instructions.		21
		BAYTHROID® 2 EC	Refer to the BAYTHROID 2 EC approved label for use instructions.		21
		CAPTURE® 2 EC	Refer to the CAPTURE 2 EC approved label for use instructions.		21
		KARATE® 1 E (except CA)	Refer to the KARATE 1 E approved label for use instructions.		21
		SCOUT X-TRA® (except CA)	Refer to the SCOUT X-TRA approved label for use instructions.		28

¹For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

RESISTANCE MANAGEMENT

Cotton pest control programs, especially those for control of Silverleaf Whitefly populations, should employ a properly designed resistance management strategy. Such resistance management strategies include mixture or rotation of alternative classes of chemistry including organophosphates, carbamates, pyrethroids or insect growth regulators. Consult your state or area agricultural extension service for local resistance management strategies and advice on alternative insecticides.

25/57

CRANBERRY

GENERAL USE PRECAUTIONS

- Limit to one application per growing season.
- Do not apply more than 1.0 lb. (1.0 lb. ai) ORTHENE 97 Pellets per season.
- Do not apply from start of bloom until all berries set.

TABLE 8. CRANBERRY – Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATE OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
<p>FOLIAR</p> <p>By Ground or Sprinkler: Sufficient water to give thorough coverage.</p> <p>By Air: Minimum of 2 gals./A of spray.</p>	<p>Cranberry Blossom Worm Cranberry Cutworm Gypsy Moth False Armyworm Fireworm Spanworm Sparganothis</p>	<p>1.0 lb. (16 oz.)</p>	<p>SPRINKLER IRRIGATION APPLICATION TO CRANBERRIES:</p> <p>This product may only be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.</p> <p>Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.</p> <p>If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts:</p>	<p>90</p>

continued

26/57

TABLE 8. CRANBERRY – Directions for Use – continued

<p>Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water systems are in place.</p> <p>A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.</p> <p>The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.</p> <p>The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.</p> <p>The pesticide injection pipeline must also contain a functional, normally closed solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.</p> <p>The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.</p> <p>The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.</p> <p>Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.</p> <p>Do not apply when wind speed favors drift beyond the area intended for treatment.</p> <p>Solid Set System: Apply specified dosage for the entire length of the irrigation period, or for a 30 to 60 minute period at the end of a regular irrigation set, or as a 30 to 60 minute injection as a separate application not associated with a regular irrigation. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining pesticide, a dye indicator may be injected into the lines to mark the end of the application period. See NOTE.</p> <p>Center Pivot Systems: Inject the specified dosage per acre continuously for one complete revolution of the system. See NOTE.</p> <p>NOTE: Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Inject the product with a positive displacement pump into the main line ahead of a right turn to ensure adequate mixing.</p> <p>Application of more than label recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.</p>
--

27/57

HEAD LETTUCE - Crisphead Type Only

GENERAL USE PRECAUTIONS

- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 Pellets per crop cycle.
- Do not feed trimmings to livestock or allow animals to graze on treated areas.
- AZ & CA, Desert Areas: Do not apply after first head begins to form in crops which germinate from mid-September through November.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

TABLE 9. HEAD LETTUCE - Crisphead Type Only - Directions for Use.

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Ground: 10 to 60 gals./A of spray broadcast. By Air: Minimum of 5 gals./A of spray.	Aster Leafhopper Green Peach Aphid	1/2 to 1.0 lb. (8 to 16 oz.)		21 Spring, Summer and early Fall crops in all areas, Winter crops in Florida and Texas, late Fall crops in Arizona and Winter crops in Arizona and California.
	Armyworm (excluding Beet Armyworm) Cabbage Looper	1.0 lb. (16 oz.)		

MINT - Peppermint and Spearmint

GENERAL USE PRECAUTIONS

- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 Pellets per crop cycle.
- Do not graze treated areas.
- Do not feed spent mint hay to animals.

TABLE 10. MINT - Peppermint and Spearmint – Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
<p>FOLIAR</p> <p>By Ground: 20 to 100 gals./A of spray.</p> <p>By Air: 5 to 10 gals./A of spray.</p>	<p>Alfalfa Looper Aphid Cutworm</p>	<p>1.0 lb. (16 oz.)</p>	<p>Apply when eggs or insects first appear.</p> <p>Make one repeat application, at a minimum of a 7 day interval, if necessary, to maintain control.</p>	<p>14</p>
<p>FOLIAR</p> <p>By Ground: 40 to 100 gals./A of spray.</p>	<p>Strawberry Root Weevil Adult Black Vine Weevil Adult</p>	<p>1.0 lb. (16 oz.)</p>	<p>Strawberry Root and Black Vine Weevil: For control, apply in water in a minimum of 40 gals. spray per acre by ground. Good spray coverage and canopy spray penetration is critical for control. Increase spray volume and pressure with tall or dense mint canopy.</p> <p>Apply after adult emergence is complete but prior to egg laying. Apply at dusk or during the night on a warm still evening.</p> <p>Make one repeat application, at a minimum of a 7 day interval, if necessary to maintain control.</p>	<p>14</p>

29/57

**NON-BEARING CITRUS - Directions For Use In Agricultural Settings
(Newly Planted Groves)**

GENERAL USE PRECAUTIONS

- Do not graze treated areas.
- DO NOT HARVEST citrus for one year after treatment.

TABLE 11. NON-BEARING CITRUS - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATE OF ORTHENE 97 PELLETS PER ACRE	REMARKS
FOLIAR By Ground: 100 to 200 gals./A of spray.	Aphid Grasshopper Katydid Mealybug Orangedog Plantbug Thrips Whiteflies (except Sweetpotato/Silverleaf)	1/2 lb. (8 oz.)	For repeat applications, use a minimum spray interval of 3 days.
	Citrus Blackfly*	1/2 to 3/4 lb. (8 to 12 oz.)	Apply when eggs or insects first appear. Use the high rate when a heavy infestation is present. For repeat applications use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh Ants)	3/4 lb. (12 oz.)	For repeat applications, use a minimum spray interval of 7 days.
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.			
SOIL MOUND TREATMENT DRENCH METHOD	Ants (including Imported Fire Ants and Harvester Ants)*	3/4 oz./5 gals.	Apply 1 gal. of mix to each mound area by sprinkling the mound until it is wet and treat a 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.

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

30/57

NON-CROP AREAS
Field Borders, Fencerows, Roadsides, Ditchbanks, Borrow Pits

GENERAL USE PRECAUTIONS

- Do not graze or feed vegetation cut from treated areas.

**TABLE 12. NON-CROP AREAS - Field Borders, Fencerows, Roadsides, Ditchbanks, Borrow Pits -
Directions for Use**

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS
FOLIAR By Ground: 10 to 20 gals./A of spray. By Air: 1 to 5 gals./A of spray (minimum of 5 gals./A in CA).	Grasshopper	1/4 lb. (4 oz.)	For early to mid-season application. Use the higher volumes when spraying dense foliage. An approved drift retardant may be added to aid in controlling drift and reducing evaporation of aerial sprays.

81/57

NON-CROP AREAS - Wasteland

GENERAL USE PRECAUTIONS

- Do not make more than one application ORTHENE 97 Pellets per season.
- Do not graze or feed vegetation cut from treated areas.

TABLE 13. NON-CROP AREAS - Wasteland – Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS
FOLIAR By Ground: 10 to 20 gals./A of spray. By Air: 1/2 gal./A of spray (minimum of 5 gals./A in CA).	Black Grass Bugs Grasshopper Mormon Crickets	1.5 oz. to 2 oz.	Use the higher volumes when spraying dense foliage. An approved drift retardant may be added to aid in controlling drift and reducing evaporation of aerial sprays.

32/57

PEANUTS

GENERAL USE PRECAUTIONS

- Do not feed treated forage or hay to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE 97 Pellets on peanuts as a foliar spray in addition to the peanut planterbox seed treatment use.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

TABLE 14. PEANUTS - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Ground: 10 to 50 gals./A of spray. By Air: 5 to 10 gals./A of spray.	Grasshopper	1/4 to 1/2 lb. (4 to 8 oz.)	Apply when eggs or insects first appear.	14 (of digging)
	Thrips	3/8 to 3/4 lb. (6 to 12 oz.)	ORTHENE can be tank mixed with registered at cracking and early post-emergence peanut herbicides, provided those products do not prohibit tank mixes, provided the most restrictive of label limitations and precautions are observed, and provided no label dosage rates are exceeded.	
	Corn Earworm Fall Armyworm Leafhoppers Loopers Velvetbean Caterpillar	3/4 to 1.0 lb. (12 to 16 oz.)	To determine physical compatibility, pour the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank into a suitable container, mix thoroughly and allow to stand for 5 minutes. If the combination remains mixed, or can be remixed readily, the mixture is considered physically compatible. When mixing wettable powder or dry flowable formulations, add and disperse these first, then add liquid pesticides. Conduct another compatibility test at concentrations, which will be present in the irrigation lines. If there is any separation, which cannot be remixed readily, VALENT recommends that the combination not be used. Combinations should be kept agitated and should be applied immediately. Do not allow combinations to sit for prolonged periods in the chemical supply tank or irrigation lines.	

PEPPERS – Bell

GENERAL USE PRECAUTIONS

- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 Pellets per crop cycle.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

TABLE 15. PEPPERS - Bell – Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Ground: 25 to 150 gals./A of spray. By Air: Minimum of 3 gals./A of spray (minimum of 5 gals./A in CA).	Grasshopper	1/4 to 1/2 lb. (4 to 8 oz.)	Apply when eggs or insects first appear.	7
	Cabbage Looper Green Peach Aphid Tobacco Hornworm	1/2 to 1.0 lb. (8 to 16 oz.)		
	European Corn Borer	3/4 to 1.0 lb. (12 to 16 oz.)		

34/57

PEPPERS – Non-Bell

FOR USE IN MIDWESTERN, EASTERN STATES AND PUERTO RICO ONLY.

GENERAL USE PRECAUTIONS

- Do not apply more than 1 lbs./A (1 lb. ai) ORTHENE 97 Pellets per crop cycle.

TABLE 16. PEPPERS - Non-Bell - Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATE OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Ground: 40 to 150 gals./A of spray.	Aphid	1/2 lb. (8 oz.)	For repeat application use a minimum spray interval of 3 days.	7

SOYBEANS

GENERAL USE PRECAUTIONS

- Do not graze or cut vines for hay or forage.
- Do not apply more than 1.5 lbs./A (1.5 lbs. ai/A) of ORTHENE 97 Pellets per season.
- Do not apply ORTHENE 97 Pellets within 14 days of harvest.
- For rates up 0.5 lb/A, at least 3 days must pass between applications of ORTHENE 97 Pellets.
- For rates between 0.5 lb./A and 1.0 lbs./A, at least 7 days must pass between applications of ORTHENE 97 Pellets.
- Always read and follow all label directions, restrictions and precautions when using any pesticide alone or in tank mix combinations. The most restrictive labeling applies when using a tank mix.

TABLE 17. SOYBEANS – Directions for Use

APPLICATION METHOD	PESTS CONTROLLED	RATES OF ORTHENE 97 PELLETS PER ACRE	REMARKS	DAYS TO HARVEST
FOLIAR By Air: 5 to 10 gals./A of spray By Ground: 10 to 50 gals./A of spray	Grasshopper Thrips	0.25 to 0.5 lb.	Repeat treatment as necessary to maintain control, but do not exceed a maximum of 1.5 lbs./A (1.5 lbs. ai/A) per season.	14
	Potato Leafhopper Stink Bugs	0.5 to 1 lb.		
	Armyworms (except Beet) Bean Leaf Beetle Cabbage Looper Green Cloverworm Mexican Bean Beetle Soybean Aphid Threecornered Alfalfa Hopper Velvetbean Caterpillar	0.75 to 1 lb.		

TOBACCO (Except CA) - Transplant Water Application

GENERAL USE PRECAUTIONS

- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE 97 Pellets in transplant water, plant bed, soil, float bed (greenhouse) and foliar applications.

TABLE 18. TOBACCO (Except CA) - Transplant Water Application - Directions for Use

CROP	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER ACRE	FURTHER USE INSTRUCTIONS
Tobacco	Cutworm Flea Beetle Green Peach Aphid Potato Tuberworm Tobacco Aphid Tobacco Thrips	3/4 lb. (12 oz.)	<p>Provides control of early season flea beetles, green peach Aphid, tobacco Aphid, and Cutworm 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. ORTHENE 97 Pellets should be pre-mixed in water to form a slurry solution prior to adding to the transplant water tank.</p> <p>Do not apply more than 3/4 lb. ORTHENE 97 Pellets per acre as a transplant water application as some phytotoxicity may occur.</p> <p>Make transplant water applications using mechanical transplant equipment only. Using such equipment, the insecticide/water mixture is mechanically applied directly into the soil along with the transplanted plants.</p>

TOBACCO (Except CA) – Foliar Application

GENERAL USE PRECAUTIONS

- For repeat applications use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.
- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE 97 Pellets in transplant water, plant bed, soil, float bed (greenhouse) and foliar applications.

TABLE 19. TOBACCO (Except CA) - Foliar Application – Directions for Use

CROP	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER ACRE	FURTHER USE INSTRUCTIONS	DAYS TO HARVEST
Tobacco (Flue-Cured, Air Cured, Dark Fire Cured)	Grasshopper	1/4 to 1/2 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
	Flea Beetle Green Peach Aphid Hornworm Tobacco Thrips	1/2 lb. (8 oz.)		
	Stinkbugs Tobacco Aphid Vegetable Weevils	1/2 to 3/4 lb. (8 to 12 oz.)		
	Budworm Cabbage Looper Cutworm Japanese Beetle	3/4 lb. (12 oz.)		

TOBACCO (Except CA) – Plant Bed Application

GENERAL USE PRECAUTIONS

- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE 97 Pellets in transplant water, plant bed, soil, float bed (greenhouse) and foliar applications.

TABLE 20. TOBACCO (Except CA) - Plant Bed Application - Directions for Use

CROP	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER ACRE	FURTHER USE INSTRUCTIONS
Tobacco Bed Treatment	Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	3/4 lb. (12 oz.)	Apply to foliage at the equivalent of 3/4 Tbsp. in 1 gal. of water per every 1,000 sq. ft. of bed. Apply evenly to insure thorough coverage. For repeat applications use a minimum spray interval of 7 days.

39/57

TOBACCO (Except CA) – Greenhouse Application

GENERAL USE PRECAUTIONS

- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE 97 Pellets in transplant water, plant bed, soil, float bed (greenhouse) and foliar applications.

TABLE 21. TOBACCO (Except CA) Greenhouse Application - Directions for Use

CROP	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER ACRE	FURTHER USE INSTRUCTIONS
Tobacco	Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	3/4 lb. (12 oz.)	Apply to foliage at the equivalent of 3/4 Tbsp. in 3 gals. water per every 1,000 sq. ft. of bed. Apply evenly to insure thorough coverage. For repeat applications use a minimum spray interval of 7 days. Note: Floatbed water should be disposed of in the transplanted field in either transplant water or foliar spray.

40/57

TOBACCO (Except CA) – Soil Application

GENERAL USE PRECAUTIONS

- Do not apply more than 4 1/8 lbs./A (4 lbs. ai) ORTHENE 97 Pellets per crop cycle. This includes the use of ORTHENE 97 Pellets in transplant water, plant bed, soil, float bed (greenhouse) and foliar applications.

TABLE 22. TOBACCO (Except CA) - Soil Application - Directions for Use

CROP	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS	FURTHER USE INSTRUCTIONS	DAYS TO HARVEST
Tobacco	Ants (including Imported Fire Ants and Harvester Ants)	Mound Treatment Dry Method: Evenly distribute 1 to 2 tps. over the mound. 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 4 foot diameter circle around the mound.	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest. Treat maximum of 13 mounds per acre. Do not treat more than once per season.	3

41/57

SMALL VOLUME SPRAY EQUIPMENT

Preparation of ORTHENE 97 Pellets Spray Mix Using a Small Fluid Ounce Measuring Cup

LABEL RECOMMENDATION ORTHENE 97 PELLETS IN 100 GALS. OF WATER	EQUIVALENT ORTHENE 97 PELLETS IN 25 GALS. OF WATER	EQUIVALENT ORTHENE 97 PELLETS IN 1 GALS. 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.

4/2/57

NON-BEARING CITRUS

GENERAL USE PRECAUTIONS

- Do not graze treated areas.
- **DO NOT HARVEST** citrus for one year after treatment.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

PLANTS	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER ACRE	TIME OF APPLICATION	RECOMMENDED APPLICATION
Non-bearing Citrus (including citrus nursery seedlings)	Aphid Grasshopper Katydid Mealybugs Orangedogs Plant Bugs (Lygus) Thrips Whiteflies	1/2 lb. (8 oz.)	Apply as needed for control of existing populations.	Apply ORTHENE 97 Pellets 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.
	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	Do not allow livestock to graze treated areas. DO NOT HARVEST citrus for one year after treatment.
Non-bearing Citrus (including citrus nursery seedlings)	Ants (including Imported Fire Ants and Harvester Ants)*	Foliar Spray 3/4 lb. (12 oz.)	Apply as needed for control of existing populations.	Apply ORTHENE 97 Pellets 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.
		Mound Treatment – Dry Method: Evenly distribute 1 to 2 tsps. over the mound. 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.

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

43/57

NURSERY STOCK
Non-Bearing Deciduous Fruit Trees, Nut Trees and Vines
In Nursery Fields or Non-Bearing Orchards

GENERAL USE PRECAUTIONS

- **Do Not Allow Livestock To Graze Treated Areas.**
- 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.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

PLANTS	PESTS CONTROLLED	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	Aphid Plant Bugs (Lygus) Thrips	1/2 to 1 lb. (8 to 16 oz.)	Apply as needed for control of existing populations.	Apply ORTHENE 97 Pellets in 50 to 200 gals. of water per acre by ground and not less than 5 gals. of water per acre by air.

44/57

NON-CROP AREAS

CROP	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER ACRE	FURTHER USE INSTRUCTIONS
Non-Crop Areas (field borders, fencerows, roadsides, ditchbanks and borrow pits)	Grasshopper	1/4 lb. (4 oz.)	For early to mid-season application to Grasshopper 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 - Dry Method: Evenly distribute 1 to 2 tps. over the mound. 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 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.

45/57

CONTAINER GROWN NURSERY STOCK

GENERAL USE PRECAUTIONS

- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.

PLANTS	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS 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 ORTHENE 97 Pellets per 100 gals. of solution so as to thoroughly drench the root system.
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh Ants)	3/4 lb. (12 oz.)	Apply as needed to control the pest.	

46/57

ORNAMENTAL TREES AND SHRUBS

GENERAL USE PRECAUTIONS

- Do not exceed 16 oz. of ORTHENE 97 Pellets per acre per application.
- For foliar applications, do not apply with a low pressure hand wand.
- For foliar applications for all trees except Flowering Crabapple and Douglas Fir must not be made more than once every 14 days. See "Recommended Application" for spray interval information regarding Flowering Crabapple and Douglas Fir.

PLANTS	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Trees and Shrubs (except Flowering Crabapple. See below)	Aphid Bagworm Birch Leafminer Lace Bug Leafroller Tent Caterpillar*	1/4 to 1/2 lb. (4 to 8 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. of water for Gypsy Moth control and 3/4 lb. per 100 gals. of water for Tent Caterpillar control.
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae* Webworms	1/2 lb. (8 oz.)	As the insects begin to appear.	
	Scales (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 ORTHENE 97 Pellets in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Grasshopper	1/2 lb. (8 oz.)	As the Grasshopper begin to appear.	

continued

47/57

ORNAMENTAL TREES AND SHRUBS continued

PLANTS	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Trees and Shrubs (except Flowering Crabapple, See below)	California Oakworm Cankerworm (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 ORTHENE 97 Pellets 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 4 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. of water with a hydraulic sprayer as a full coverage spray.
	Box Elder Bug Budworm Leafhopper Sawflies	3/4 lb. (12 oz.)	As the insects begin to appear.	
	Japanese Beetle	1 lb. (16 oz.)	As the Japanese Beetle begin to appear. Repeat applications, at 2 week intervals, may be necessary.	Apply the specified amount of ORTHENE 97 Pellets in 100 gals. of 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 97 Pellets will not prevent Elm Leaf Beetle eggs from hatching.	Apply the specified amount of ORTHENE 97 Pellets in 100 gals. of water with a hydraulic sprayer as a full coverage spray.

48/59

ORNAMENTAL TREES AND SHRUBS continued

PLANTS	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Douglas Fir (Christmas Trees)	Douglas Fir Needle Midge	1/2 lb. (8 oz.) (1/2 lb./A)	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. Do not make more than 1 application per season.
Flowering Crabapples	Aphid Leafroller Tent Caterpillar	1/4 lb. (4 oz.)	As the insects begin to appear.	Apply the specified amount of ORTHENE 97 Pellets in 100 gals. of 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	Aphid	2 to 3 Level Tbsp. (0.6 to 0.9 oz.) per 1 Tbsp. of water.	As Aphid begin to appear.	Make a paint on slurry by mixing the specified amount of ORTHENE 97 Pellets with 1 Tbsp. 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.

49/57

GOLF COURSE TURFGRASS

GENERAL USE PRECAUTIONS

- Do not allow livestock to graze treated areas.
- Do not feed treated grass to livestock.
- Do not apply to turfgrass by air.
- Do not apply more than 4 1/8 lbs. (4.0 lbs. ai/A) of ORTHENE 97 Pellets to Golf Courses.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb/A.

PLANT	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 1000 SQ. FT.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Golf Course Turfgrass	Cutworm Fall Armyworm Yellow Striped Armyworm Southern Armyworm	0.4 to 0.9 oz. (1 to 2 1/2 lbs./A)	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.
	Chinch Bug	0.9 to 1.5 oz. (2 1/2 to 4 lbs./A)	Apply as needed for adult population knockdown (10 to 14 days).	
	Sod Webworm	0.4 to 0.8 oz. (1 to 2 lbs./A)	As sod webworms begin to appear. Use the higher amount when quick knockdown is needed or with heavy infestations. Repeat application may be necessary. Do not repeat at more than 1 week intervals.	
	Leafhopper	0.8 oz. (2 lbs./A)	As the leafhoppers begin to appear. A repeat application at 1 week intervals may be necessary.	

continued

GOLF COURSE TURFGRASS continued

PLANT	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 1000 SQ. FT.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Golf Course Turfgrass	Mole Cricket (except CA) Spittlebug (except CA)	0.8 to 1.4 oz. (2 to 3.9 lbs./A)	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. of 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 tsp. per gal. of water for small total mix volumes or 6 fl. oz. per 50 gals. of water for large total mix volumes.</p>
	Greenbug (<i>Schizaphis graminum</i>) Grasshopper	0.4 oz. (1.0 lb./A)	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)	1.1 to 1.5 oz. (3 to 4 lbs./A)	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 gals. of water per 1,000 sq. ft. Irrigate lightly after application (not more than 1/2 inch). Use the higher rate for severe infestations

5/1/57

SOD FARM TURFGRASS

GENERAL USE PRECAUTIONS

- Do not allow livestock to graze treated areas.
- Do not feed treated grass to livestock.
- Do not apply to turfgrass by air.
- Do not apply more than 3.1 lbs./A (3.0 lbs. ai/A) ORTHENE 97 Pellets to Sod Farm Turfgrass in a single application.
- User must allow at least 3 days between last application and harvesting of sod.

PLANT	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 1000 SQ. FT.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Sod Farm Turfgrass	Cutworm Fall Armyworm Grasshopper Greenbug Leafhopper Sod Webworm Southern Armyworm Yellow Striped Armyworm	0.4 to 0.9 oz. (1 to 2 1/2 lbs./A)	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. Do not apply more than 3.1 lbs./A in a single application.
	Chinch Bugs Mole Cricket (except CA) Spittlebug (except CA)	0.9 to 1.1 oz. (2 1/2 to 3 lbs./A)	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. Do not apply more than 4 lbs./A in a single application.
	Sod Webworm	0.4 to 0.8 oz. (1 to 2 lbs./A)	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.	

52/57

MOUND TREATMENT OF FIRE ANTS AND HARVESTER ANTS IN TURFGRASS

GENERAL USE PRECAUTIONS

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

PLANT	PEST CONTROLLED	AMOUNT ORTHENE 97 PELLETS	TIME OF APPLICATION	RECOMMENDED APPLICATION
Turfgrass Residential, Recreational, and Commercial Turf	Imported Fire Ants and Harvester Ants	Mound Treatment- Dry Method: Evenly distribute 1 to 2 tsps. over the mound. 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 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 97 Pellets as directed. Grass in treated areas may be injured. Do not treat mound more than once per season.

53/57

OUTDOOR AND PERIMETER SPRAY

GENERAL USE PRECAUTIONS

- Not for use on residential turf grass.
- Do not apply with a low pressure hand wand.

LOCATION	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER GALLON	TIME OF APPLICATION	RECOMMENDED APPLICATION
Outdoor and Perimeter Area.	Wasps	1.2 oz.	Treat early or late in the day, as wasps are generally less active during these times.	Apply specified amount of ORTHENE 97 Pellets per each gallon of water used. Apply as a spot treatment to the nest, nest entrance, and surrounding areas where the wasps alight.
	Ants (excluding Fire, Harvester, Carpenter and Pharaoh Ants) Cockroaches Crickets Earwigs Pillbugs	1.2 oz.	As the insects appear.	Apply specified amount of ORTHENE 97 Pellets per each gallon of water used. Apply to a band of soil 6 to 10 ft. adjacent to the structure and to a height of 2 to 3 ft. 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.

54/57

ORNAMENTAL PLANTS GROWN FOR CUT FLOWER PRODUCTION

GENERAL USE PRECAUTIONS

- Do not apply more than 0.75 lb./A ORTHENE 97 Pellets per 100 gals. of water.
- Do not exceed 0.75 lb./A ORTHENE 97 Pellets for cut flowers.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 0.5 lbs ai/A and 7 days for application rates greater than 0.5 lbs ai/A.

PLANT	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Chrysanthemums Daisies Gladioli Roses	Aphid Lygus Thrips	1/2 lb. (8 oz.)	As insects begin to appear. Repeat applications may be necessary.	Apply the specified amount of ORTHENE 97 Pellets in 100 gals. of water with a hydraulic sprayer as a full coverage spray. DO NOT EXCEED 12 OZ. PER ACRE. Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties. Test on a few plants to determine varietal susceptibility.

55/57

**GREENHOUSE (Commercial only) AND OUTDOOR ORNAMENTAL PLANTS,
FLORAL CROPS, GROUND COVERS AND FOLIAGE PLANT CROPS
(Plants Not Produced for Cut Flowers)**

GENERAL USE PRECAUTIONS

- Not for residential greenhouse use.
- Do not apply more than 16 oz. (1.0 lb.) of product per 100 gals. of water per acre.
- Do not apply with a low pressure hand wand.
- For repeat applications, use a minimum spray interval of 3 days for application rates up to and including 1/2 lb./A and a minimum of 7 days for rates exceeding 1/2 lb./A.
- **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.**
- This product is sold by weight and package is full when packed and is inclined to settle.

PLANTS	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Carnations Chrysanthemums	Aphid Thrips	1/2 lb. (8 oz.)	As Aphid 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, 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. Application to Chrysanthemums in flower may result in flower damage.

continued

56/57

GREENHOUSE (Commercial only) AND OUTDOOR ORNAMENTAL PLANTS, FLORAL CROPS, GROUND COVERS AND FOLIAGE PLANT CROPS - Plants Not Produced for Cut Flowers continued

PLANTS	PESTS CONTROLLED	AMOUNT ORTHENE 97 PELLETS PER 100 GALS.	TIME OF APPLICATION	RECOMMENDED APPLICATION
Floral Crops Dahlias Daisies Easter Lily Gladioli <i>Gypsophila</i> Pachysandra Pansy Peony Sedum Statice Strawflower Yarrow Zinnia Foliage Plants Anthuriums Cacti Orchids Poinsettia	Aphid	1/2 lb. (8 oz.)	As aphid 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. Caution: Phytotoxicity has occurred on the following foliage plants: <i>Blechnum gibbum</i> , <i>Cissus Antarctica</i> , <i>Ficus triangularis</i> , <i>Fittonia verchaffeltii</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 2 weeks for varietal phytotoxicity. Application of ORTHENE 97 Pellets on Poinsettias after bract formation may result in phytotoxicity on certain varieties.
	Mealybug Thrip Whitefly	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.	
	Scales (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.	
	Sweetpotato Whitefly (except CA)	1/4 lb. (4 oz.) + 10 2/3 fl. oz. (0.2 lb. ai) TAME® 2.4 EC Spray	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.	
Roses	Aphid Leafroller Thrip	1/2 to 3/4 lb. (8 to 12 oz.)	As leaf rollers 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. Application to Roses in flower may result in flower damage.

57/57

STORAGE AND DISPOSAL

PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.
Open dumping is prohibited.

PESTICIDE 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.

Copyright© 2007 by Valent U.S.A. Corporation.

AMMO® Reg. TM of FMC Corporation for cypermethrin insecticide.
ASANA® Reg. TM of E. I. duPont de Nemours & Co., Inc. for esfenvalerate insecticide.
BAYTHROID® Reg. TM of Bayer Corporation for cyfluthrin synthetic pyrethroid.
CAPTURE® Reg. TM of FMC Corporation for bifenthrin insecticide miticide.
DANITOL® Reg. TM of Sumitomo Chemical Company Ltd. for fenpropathrin insecticide-miticide.
DEADHATCH® Reg. TM of Valent U.S.A. Corporation
KARATE® Reg. TM of Syngenta. for lambda-cyhalothrin insecticide.
LORSBAN® Reg. TM of Dow AgroSciences LLC for chlorpyrifos insecticide.
ORTHENE® Reg. TM of OMS Investments, Inc. for acephate insecticide.
SCOUT® and SCOUT X-TRA® Reg. TM of Hoechst-Roussel Agri-Vet. Co. for tralomethrin pyrethroid insecticide.
TAME® Reg. TM of Valent U.S.A. Corporation

Manufactured for
Valent U.S.A. Corporation
P.O. Box 8025
Walnut Creek, CA 94596-8025
www.valent.com

Made in U.S.A.

EPA Reg. No. 59639-91
EPA Est. No. 39578-TX-01

059639-00091.20070305.ORT97Pellet.doc