Proof Approval

If you have any questions, please contact

ART DEPARTMENT
PHONE: 406.863.3800
FAX: 406.862.3544

Total Label USA, LLC
Your Total Label Solution.

Booklet
Please email artwork to:
art@totallabel.com
500 Label Lane
Whitefish, MT 59937

If you have any questions, please contact

ART DEPARTMENT
PHONE: 406.863.3800
FAX: 406.862.3544

Orthene 97 10 lb. booklet • 12589-5 • 20 pages, stitched

Black, 124 Gold, 1805 Red

Lamination White BOPP Permanent

5.5" x 6" RCR

Please examine carefully the information on this Proof Approval. The content and accuracy of this information is your responsibility. Your labels will be printed exactly as you specify on this Proof Approval. Please verify and sign this Proof Approval. No production will begin without signed approval.

Orthene 97

NET WEIGHT 10 POUNDS

(SOLUBLE INSECTICIDE)

Active Ingredient

*Acetate By Wt.
97.4%

Inert Ingredients
2.6%

Total
100.0%

*O,S-Dimethyl acetylphosphoramidothioate

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

EPA Reg. No. 5481-8978

EPA Est. 39578-TX-01

For Use Only By Professional Applicators

KEEP OUT OF REACH OF CHILDREN

CAUTION
SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

ORTHENE® 97

12589-5

AMVAC Chemical Corporation
4100 E. Washington Boulevard
Los Angeles, CA 90023 U.S.A.
1-323-264-3910

(REV 8/11/11) 75
PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION: Harmful if swallowed.

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 and Neoprene ≥ 14 mils and shoes plus socks.

In addition, all Mixers and Loaders and all Applicators using low pressure hand wand application equipment must wear: A NIOSH-approved dust mask 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 the manufacturer’s instructions for cleaning/maintaining PPE. If no instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

FIRST AID
Acetate 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 a 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.

EMERGENCY INFORMATION
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:
Transportation: CHEMTREC ........................................................................................................................................................... 1-800-424-9300
Other: AMVAC ............................................................................................................................................................................... 1-323-264-3910

NOTE 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.
General Use Precautions

Table 22. Tobacco (Except CA) - Soil Application - Directions for Use

Table 21. Tobacco (Except CA) - Greenhouse Application - Directions for Use

Tobacco Ants

Tobacco Cutworm

CROP

Pest

CONTROLLED AMOUNT

Tobacco Aphid

Green Peach Aphid

Flea Beetle

Harvester and pharaoh

Orthene 97

Further Use Instructions

Orthene 97

FURTHER USE INSTRUCTIONS

ORTHENE

AMOUNT

ORTHENE

97

PER ACRE

ORTHENE

97

FURTHER USE INSTRUCTIONS

ORTHENE

97

NOT

ORTHENE

97

WITHIN THE SCOPE OF THE WORKER PROTECTION STANDARD FOR AGRICULTURAL PESTICIDES (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
• shoes plus socks

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
• 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.

Not for use on agricultural establishments in hopper-box, planter-box, slurry-box or other seed treatment applications at, or immediately before, planting.
Please examine carefully the information on this Proof Approval. The content and accuracy of this information is your responsibility. Your labels will be printed exactly as you specify on this Proof Approval. Please verify and sign this Proof Approval. No production will begin without signed approval.

**TANK MIXES**

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

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

**GENERAL 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 and tobacco (float bed application).

**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.

**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. 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 product should be given. With tobacco transplant water applications, the ORTHENE 97 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.

- All aerial, ground and air-assisted/airblast application equipment must be properly maintained and calibrated using water as carrier. 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.

**GENERAL INFORMATION**

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

<table>
<thead>
<tr>
<th>CROP</th>
<th>CONTROLLED PESTS</th>
<th>AMOUNT PER ACRE</th>
<th>HARVEST DAYS TO END</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>Tobacco Aphid</td>
<td>1/4 to 1/2 lb.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutworm</td>
<td>3/4 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flea Beetle</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Japanese Beetle</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stinkbugs</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobacco Thrips</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vegetable Weevils</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hornworm</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Peach Aphid</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grasshopper</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grasshopper</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CROP</th>
<th>CONTROLLED PESTS</th>
<th>AMOUNT PER ACRE</th>
<th>HARVEST DAYS TO END</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>Tobacco Aphid</td>
<td>1/4 to 1/2 lb.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutworm</td>
<td>3/4 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flea Beetle</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Japanese Beetle</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stinkbugs</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobacco Thrips</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vegetable Weevils</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hornworm</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Peach Aphid</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grasshopper</td>
<td>1/2 to 1 lb.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.
### 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 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**

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Ground: 20 to 100 gals./A of spray.</td>
<td>Beetle, Aphid, Grasshopper, Leafhopper, Midge</td>
<td>1/2 to 1.0 lb. (4 to 8 oz.)</td>
<td>Apply when eggs or insects first appear.</td>
<td>14 (snapbeans - succulent or dry beans)</td>
</tr>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Air: Minimum of 2 gals./A of spray.</td>
<td>Cutworm, Green Cloverworm, Hailworm, Leafhoppers, Mexican Bean Beetle, Plant Bugs (Lygus), Soybean Looper, Thrips, Whitefly (except Sweetpotato or Silverleaf Whitefly), Armyworm (excluding Black Armyworm), Corn Earworm, European Corn Borer</td>
<td>3/4 to 1.0 lb. (12 to 16 oz.)</td>
<td>Use higher rates for severe insect infestations</td>
<td>1 (lima beans - succulent form)</td>
</tr>
</tbody>
</table>

### 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 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**

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Ground: 50 to 100 gals./A of spray.</td>
<td>Green Peach Aphid, Cabbage Looper</td>
<td>1/2 to 1.0 lb. (4 to 8 oz.)</td>
<td>Apply when eggs or insects first appear.</td>
<td>21</td>
</tr>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Air: Minimum of 5 gals./A of spray.</td>
<td>Cutworm, Fall Armyworm</td>
<td>1.0 lb. (16 oz.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GENERAL USE PRECAUTIONS
- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 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. COMMERCIALLY TREATED COTTONSEED – Directions for Use

<table>
<thead>
<tr>
<th>PESTS CONTROLLED</th>
<th>AMOUNT PER 100 LBS. COTTONSEED</th>
<th>EFFICACY</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton Aphid</td>
<td>6.4 oz. (0.4 lb.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thrips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thrips (including Western Flower Thrips)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black (Greasy) Cutworm</td>
<td>6.4 oz. (0.4 lb.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- ORTHENE 97 contains a water-soluble systemic insecticide which helps to reduce injury to cotton seedlings by several insects. ORTHENE 97 can be mixed in the slurry tank with most of the fungicide seed treatments in common use. ORTHENE 97 can also be applied as a separate treatment using enough water to give adequate coverage of the seed. ORTHENE 97 dissolves quickly in water with a minimum of agitation.
**ORTHENE 97**

**GENERAL USE PRECAUTIONS**
- Do not apply more than 4 1/8 lbs/A (4 lbs. ai)
- Do not allow animals to graze on treated areas.
- Do not feed treated forage or hay to livestock.
- 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 apply more than 3 1/4 lbs/A ORTHENE 97 per application to cotton grown in AZ and CA.
- Do not apply more than 3 1/4 lbs/A ORTHENE 97 per application to cotton grown in all other states except AZ and CA.

**TABLE 15. NON-CROP AREAS - Wasteland - Directions for Use**

<table>
<thead>
<tr>
<th>PESTS</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1/2 to 2.0 lbs. (8 to 16 oz.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.5 oz. to 3.0 oz.</td>
<td>Apply when eggs or insects first appear.</td>
<td>21</td>
</tr>
<tr>
<td>Plantbugs (adjusted)</td>
<td>1/2 to 1.0 lb. (4 to 16 oz.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thrips (including Western Flower Thrips)</td>
<td>1/4 to 1.0 lb. (4 to 16 oz.)</td>
<td>Apply when eggs or insects first appear.</td>
<td>21</td>
</tr>
<tr>
<td>Cotton aphid (excluding AZ &amp; CA)</td>
<td>1/4 lb. (4 oz.)</td>
<td>Use highest rate for Lygus adults that have migrated into cotton.</td>
<td>21</td>
</tr>
<tr>
<td>Black (Greasy) Cutworm</td>
<td>1/2 to 1.0 lb. (8 to 16 oz.)</td>
<td>This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations.</td>
<td>21</td>
</tr>
<tr>
<td>Armyworm (excluding Beet Armyworm)</td>
<td>1/2 to 1.0 lb. (8 to 16 oz.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabbage Looper</td>
<td>1.0 lb. (16 oz.)</td>
<td>Apply when eggs first appear.</td>
<td>21</td>
</tr>
</tbody>
</table>

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.
**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.

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Ground: 10 to 25 gals./A of spray.&lt;br&gt;By Air: 3 to 10 gals./A of spray (minimum of 5 gals./A in AZ &amp; CA).&lt;br&gt;For Aerial Application&lt;br&gt;• Do not apply more than 1 lb./A ORTHENE 97 per application to cotton grown in AZ and CA.&lt;br&gt;• Do not apply more than 3/4 lb./A ORTHENE 97 per application to cotton grown in all other states except AZ and CA.</td>
<td>Bellworm&lt;br&gt;Tobacco Budworm&lt;br&gt;Adults&lt;br&gt;Larvae&lt;br&gt;Eggs DEADNAT®&lt;br&gt;Stinkbugs&lt;br&gt;Pink Bollworm&lt;br&gt;(AZ &amp; CA)&lt;br&gt;Cutworm</td>
<td>1/2 to 1.0 lb.&lt;br&gt;(8 to 16 oz.)&lt;br&gt;(East of Rockies)&lt;br&gt;1.0 lb.&lt;br&gt;(AZ &amp; CA)&lt;br&gt;1/4 to 1/2 lb.</td>
<td>Early Season: Use 1/2 lb./A for light infestation.&lt;br&gt;Mid and Late Season: Use 3/4 to 1.0 lbs./A for moderate to severe infestations.&lt;br&gt;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. DEADNAT®: Control of emerging larvae by consumption of treated egg casings.</td>
<td>21</td>
</tr>
<tr>
<td>Stinkbugs</td>
<td>3/4 lb.&lt;br&gt;(12 oz.)</td>
<td>Apply when eggs first appear.</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Pink Bollworm&lt;br&gt;(AZ &amp; CA)</td>
<td>1.0 lb.&lt;br&gt;(16 oz.)</td>
<td>Apply when insects first appear.</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Cutworm</td>
<td>3/4 lb.&lt;br&gt;(12 oz.)</td>
<td>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.</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

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 4. COTTON - Directions for Use (continued)**
TABLE 10. MINT - Peppermint and Spearmint – Directions for Use
• Do not feed spent mint hay to animals.
• Do not graze treated areas.
• Do not apply more than 2 1/8 lbs./A (2 lbs. ai) 97 per crop cycle.

GENERAL USE PRECAUTIONS

TABLE 9. HEAD LETTUCE - Crisphead Type Only – Directions for 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.
• AZ & CA, Desert Areas: Do not apply after first head begins to form in crops which germinate from mid-September through November.
• Do not apply more than 2 1/8 lbs./A (2 lbs. ai) 97 per crop cycle.

GENERAL USE PRECAUTIONS

APPLICATION METHOD
FOLIAR
By Ground:
10 to 25 gals./A spray.
By Air:
3 to 10 gals./A of spray (minimum 5 gals./A in CA).

For Aerial Application:
• Do not apply more than 1 lb./A 97 per application to cotton in AZ and CA.
• Do not apply more than 3/4 lb./A 97 per application to cotton grown in all other states except AZ and CA.

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) 97 per crop cycle. This includes the use of 97 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 97 per application to cotton grown in AZ and CA.
• Do not apply more than 3/4 lb./A 97 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

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF 97 AND TANK MIX PARTNER</th>
<th>AMOUNT OF 97 + TANK MIX PARTNER PER ACRE</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOLIAR</td>
<td></td>
<td>1/2 to 1 lb. (8 to 16 oz)</td>
<td>Follow all applicable directions,</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 to 16 fl. oz.</td>
<td>restrictions and precautions on the</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>EPA registered label for Danitol 2.4</td>
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<td></td>
<td></td>
<td></td>
<td>EC Spray.</td>
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<td></td>
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<td></td>
<td>Use a minimum application rate of</td>
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<td></td>
<td></td>
<td></td>
<td>10 2/3 fl. oz./A Danitol (0.2 lb. ai./A) in CA and AZ.</td>
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<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
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<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4E.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
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<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
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<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4 E.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4 E.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4 E.</td>
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<td></td>
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<td></td>
<td>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</td>
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<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
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<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4 E.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4 E.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4 E.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Follow all applicable directions,</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>restrictions and precautions on the</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>EPA registered label for LORSBAN 4 E.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.</td>
<td></td>
</tr>
</tbody>
</table>

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.

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.
COTTON TANK MIXES WITH PYRETHROIDS

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 AND TANK MIX PARTNER</th>
<th>AMOUNT OF ORTHENE 97 + TANK MIX PARTNER PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>By Ground: 10 to 25 gals./A spray</td>
<td>Agrotis &amp; Cutworm</td>
<td>Orthene 97 + 1/2 to 1.0 lb./A (8 to 16 oz.)</td>
<td>one of the following:</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>By Air: 3 to 5 gals./A spray (minimum 5 gals./A in CA)</td>
<td>Cabbage &amp; Looper</td>
<td>Orthene 97 + 1/2 to 1.0 lb./A (8 to 16 oz.)</td>
<td>one of the following:</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>For Aerial Application:</td>
<td>Cotton Leaf</td>
<td>Orthene 97 + 1/2 to 1.0 lb./A (8 to 16 oz.)</td>
<td>one of the following:</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>By Ground: 10 to 25 gals./A spray</td>
<td>Cotton Leaf &amp; Looper</td>
<td>Orthene 97 + 1/2 to 1.0 lb./A (8 to 16 oz.)</td>
<td>one of the following:</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>By Air: 3 to 5 gals./A spray (minimum 5 gals./A in CA)</td>
<td>Cotton Leaf &amp; Looper</td>
<td>Orthene 97 + 1/2 to 1.0 lb./A (8 to 16 oz.)</td>
<td>one of the following:</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

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.

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.
strategies and advice on alternative insecticides. Carbamates, pyrethroids or insect growth regulators. Consult your state or area agricultural extension service for local resistance management strategy. Such resistance management strategies include mixture or rotation of alternative classes of chemistry including organophosphates, 97 per crop cycle. This includes the use of:

- Do not feed gin trash or treated forage to livestock.

**GENERAL USE PRECAUTIONS**

- Always read and follow all label directions when using any pesticide alone or in tank mix combinations. Observe all restrictions and precautions.
- Do not apply more than 3/4 lb./A.
- Do not apply more than 1 lb./A.

### Table: Cranberry — Directions for Use

<table>
<thead>
<tr>
<th>Application Method</th>
<th>Pests Controlled</th>
<th>Rates of Orthene 97 Per Acre</th>
<th>Remarks</th>
<th>Days to Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foliar</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Ground or Sprinkler: Sufficient water to give thorough coverage.</td>
<td>Cranberry Blossom Worm, Cranberry Currant, Galliform, Gypsy Moth, False Armyworm, Fireworm, Streakworm, Sparganothis</td>
<td>1.0 lb. (16 oz.)</td>
<td>SPINNER APPLICATION TO CRANBERRIES. 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. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.</td>
<td>30</td>
</tr>
<tr>
<td>By Air: Minimum of 2 gals./A of spray.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do not connect an irrigation system (excluding greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the 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.

The system must contain a functional check valve, a vacuum relief valve, and a low pressure drain appropriately located on the irrigation pipelines to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump. 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. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

**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 irrigation period. See **NOTE**.

**Center Pivot System:** Inject the specified dosage per acre continuously for one complete revolution of the system. See **NOTE**.

**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.

**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.**
**ORTHENE 97 - 10 lb. booklet • 12589-5 • 20 pages, stitched • Black • 02/17/11**

**GENERIC USE PRECAUTIONS**
- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 per crop cycle.
- Do not allow livestock to graze on treated areas.
- Do not feed spent mint hay to animals.
- Do not apply more than 2 1/8 lbs./A (2 lbs. ai) ORTHENE 97 per crop cycle.
- Do not apply more than 1 lb./A ORTHENE 97 per application to cotton grown in all other states except AZ and CA.
- Do not apply more than 3/4 lb./A ORTHENE 97 per application to cotton grown in AZ and CA.

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

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Ground: 10 to 60 gals./A&lt;br&gt;By Air: Minimum of 5 gals./A of spray.</td>
<td>Aster Leafhopper&lt;br&gt;Green Peach Aphid&lt;br&gt;Armyworm (including Boll&lt;br&gt;Armyworm)&lt;br&gt;Cabbage Looper</td>
<td>1/2 to 1.0 lb.&lt;br&gt;(8 to 16 oz.)&lt;br&gt;1.0 lb.&lt;br&gt;(16 oz.)</td>
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<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

**MINT - Peppermint and Spearmint**

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Ground: 20 to 100 gals./A of spray.&lt;br&gt;By Air: 5 to 10 gals./A of spray.</td>
<td>Alfalfa Looper&lt;br&gt;Aphis&lt;br&gt;Guava Weevil&lt;br&gt;Cotton Aphid</td>
<td>1.0 lb.&lt;br&gt;(16 oz.)</td>
<td>Apply when eggs or insects first appear. Make one repeat application, at a minimum of a 7 day interval, if necessary, to maintain control.</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Strawberry Root Woevel: Adult&lt;br&gt;Black Vine Woevel: Adult</td>
<td></td>
</tr>
<tr>
<td><strong>FOLIAR</strong>&lt;br&gt;By Ground: 40 to 100 gals./A of spray.</td>
<td>Strawberry Root Woevel: Adult&lt;br&gt;Black Vine Woevel: Adult</td>
<td>1.0 lb.&lt;br&gt;(16 oz.)</td>
<td>Strawberry Root and Black Vine Woevel: 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. Apply after adult emergence is complete but prior to egg laying. Apply at dusk or during the night on a warm still evening. Make one repeat application, at a minimum of a 7 day interval, if necessary to maintain control.</td>
<td>14</td>
</tr>
</tbody>
</table>
**RESISTANCE MANAGEMENT**

**TABLE 4. COTTON - Directions for Use (continued)**

- 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.

**APPLICATION METHOD** | **PESTS CONTROLLED** | **RATES OF ORTHENE 97 PER ACRE** | **REMARKS**
--- | --- | --- | ---
**FOLIAR**
By Ground: 100 to 250 gals./A of spray. | Aphid<br>Grasshopper<br>Katydid<br>Molebug<br>Plantbug<br>Thrips<br>Whitelines (except Sweetpotato/Silverleaf) | 1/2 lb.<br>(8 oz.) | For repeat applications, use a minimum spray interval of 7 days.

By Air: 100 to 200 gals./A of spray. | Citrus Blackfly* | 1/2 to 3/4 lb.<br>(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.

**SOIL MOUND**
**TREATMENT**
**DRENCH METHOD**
Arts (excluding Carpenter and Pharaoh Ants) | 3/4 lb.<br>(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.

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**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** | **RATES OF ORTHENE 97 PER ACRE** | **REMARKS**
--- | --- | --- | ---
**SOIL MOUND**
**TREATMENT**
**DRENCH METHOD**
Arts (including Carpenter and Pharaoh Ants) | 3/4 oz./5 gals. | 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.

Arts (excluding Carpenter and Pharaoh Ants)* | 3/4 oz./5 gals. | | For repeat applications, use a minimum spray interval of 7 days.

**FOLIAR**
By Ground: 100 to 250 gals./A of spray. | Grasshopper | 1/4 lb.<br>(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.

By Air: 1 to 5 gals./A of spray (minimum of 5 gals./A in CA). | Grasshopper | 1/4 lb.<br>(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.

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

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**NON-CROP AREAS**

**FIELD BORDERS, FENCEROWS, ROADSIDES, DITCHBANKS, BORROW PILTS**

**GENERAL USE PRECAUTIONS**
- Do not graze or feed vegetation cut from treated areas.

**TABLE 12. NON-CROP AREAS - Field Borders, Fencelows, Roadside, Ditchbanks, Borrow Pits**

**APPLICATION METHOD** | **PESTS CONTROLLED** | **RATES OF ORTHENE 97 PER ACRE** | **REMARKS**
--- | --- | --- | ---
**FOLIAR**
By Ground: 10 to 20 gals./A of spray. | Grasshopper | 1/4 lb.<br>(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.
### NON-CROP AREAS - Wasteland

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

<table>
<thead>
<tr>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Grass Bugs</td>
<td>1.5 oz. to 2 oz.</td>
<td>Use the higher volumes when spraying dense foliage.</td>
</tr>
<tr>
<td>Mormon Crickets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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 per crop cycle. This includes the use of ORTHENE 97 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>
<thead>
<tr>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grasshopper</td>
<td>1/4 to 1/2 lb. (4 to 8 oz.)</td>
<td>Apply when eggs or insects first appear.</td>
</tr>
<tr>
<td>Thrips</td>
<td>3/8 to 3/4 lb. (6 to 12 oz.)</td>
<td></td>
</tr>
<tr>
<td>Corn Earworm</td>
<td>3/4 to 1 lb. (12 to 16 oz.)</td>
<td></td>
</tr>
<tr>
<td>Fleahopper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Bean Caterpillar</td>
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</tr>
</tbody>
</table>
COMMERCIALLY 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 may be considered adulterated under state and federal laws if sold or shipped as food or feedstuffs. Seed commercially treated with ORTHENE 97 must be labeled as follows: “TREATED SEED DO NOT USE FOR FOOD, FEED OR OIL.”

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

TABLE 4. COMMERCIALLY TREATED COTTONSEED – Directions for Use

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOLIAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Ground: 25 to 150 gals./A of spray.</td>
<td>Grasshopper</td>
<td>1/4 to 1/2 lb. (4 to 8 oz.)</td>
<td>Apply when eggs or insects first appear.</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Cabbage Looper</td>
<td>1/2 to 1.0 lb. (8 to 16 oz.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Peach Aphid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobacco Hornworm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>European Corn Borer</td>
<td>3/4 to 1.0 lb. (12 to 16 oz.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PEPPERS – 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 per crop cycle.

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

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

**GENERAL USE PRECAUTIONS**
- Do not graze or cut vines for hay or forage.
- Do not apply more than 4 1/8 lbs./A (4 lbs. ai).
- Do not apply ORTHENE 97 within 14 days of harvest.
- For rates up to 0.5 lbs./A, at least 3 days must pass between applications of ORTHENE 97.
- Do not apply more than 1.5 lbs./A (1.5 lbs. ai/A) per season.
- Do not graze or cut vines for hay or forage.

### TABLE 17. SOYBEANS – Directions for Use

<table>
<thead>
<tr>
<th>APPLICATION METHOD</th>
<th>PESTS CONTROLLED</th>
<th>AMOUNT ORTHENE 97 PER ACRE</th>
<th>REMARKS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOLIAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Air: 5 to 10 gals./A of spray</td>
<td>Grasshopper, Thrips</td>
<td>0.25 to 0.5 lb.</td>
<td>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.</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Potato Leafhopper, Strik Bugs</td>
<td>0.5 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Armyworms (except Beet)</td>
<td>0.75 to 1 lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bean Leaf Beetle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cabbage Looper</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Cloverworm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mexican Bean Beetle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soybean Aphid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thrips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Velvetbean Caterpillar</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CROP</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>FURTHER USE INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>Cutworm, Flea Beetle, Green Peach Aphid, Tobacco Aphid, Tobacco Thrips</td>
<td>3/4 lb. (172 oz.)</td>
<td>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. Apply in a minimum of 100 gals. of transplant water per acre. ORTHENE 97 should be pre-mixed in water to form a slurry solution prior to adding to the transplant water tank. Do not apply more than 3/4 lb. ORTHENE 97 per acre as a transplant water application as some phytotoxicity may occur. 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.</td>
</tr>
</tbody>
</table>
**SPRAY DRIFT MANAGEMENT**

- For ground applications, do not apply at heights greater than 4 feet.
- 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 airblast applications, direct spray above foliage and turn off outward pointing nozzles at row ends and outer rows.
- For aerial applications, do not apply at heights greater than 10 feet (consistent with flight safety).
- Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage.
- Make applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph).
- Do not apply at wind speeds greater than 10 mph at the application site.

**TANK MIXES**

Add the required amount of Orthene 97 insecticide and mix thoroughly. Then add other tank mix partners or foliar feed additives and the remaining water. Avoid mixing Orthene 97 with other products, especially products that cause chemical precipitation.

**ORTHENE 97 – Foliar Application – Directions for Use**

**GENERAL USE PRECAUTIONS**

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

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

<table>
<thead>
<tr>
<th>CROP</th>
<th>PESTS CONTROLLED</th>
<th>RATES OF ORTHENE 97 PER ACRE</th>
<th>FURTHER USE INSTRUCTIONS</th>
<th>DAYS TO HARVEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco (Flue-Cured, Air Cured, Dark Fire Cured)</td>
<td>Grasshopper</td>
<td>1/4 to 1/2 lb. (4 to 8 oz.)</td>
<td>Apply in 10 to 50 gals. water per acre with ground equipment or a minimum of 3 gals. per acre by air.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Flea Beetle</td>
<td>1/2 lb. (8 oz.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Peach Aphid</td>
<td>1/2 to 3/4 lb. (8 to 12 oz.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hornworm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobacco Thrips</td>
<td>3/4 lb. (12 oz.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ORTHENE 97 – Plant Bed Application – Directions for Use**

**GENERAL USE PRECAUTIONS**

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

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

<table>
<thead>
<tr>
<th>CROP</th>
<th>PESTS CONTROLLED</th>
<th>AMOUNT OF ORTHENE 97 PER ACRE</th>
<th>FURTHER USE INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco Bed Treatment</td>
<td>Cutworm</td>
<td>3/4 lb. (12 oz.)</td>
<td>Apply to foliage at the equivalent of 3/4 tsp. 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.</td>
</tr>
<tr>
<td></td>
<td>Flea Beetle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Peach Aphid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobacco Aphid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GENERAL USE PRECAUTIONS

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

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

<table>
<thead>
<tr>
<th>CROP</th>
<th>PESTS CONTROLLED</th>
<th>AMOUNT ORTHENE 97 PER ACRE</th>
<th>FURTHER USE INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>Cutworm</td>
<td>3/4 lb. (12 oz.)</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Flea Beetle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Peach Aphid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobacco Aphid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CROP</th>
<th>PESTS CONTROLLED</th>
<th>AMOUNT ORTHENE 97</th>
<th>FURTHER USE INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>Ants (excluding carpenter, fire, harvester and pharaoh)</td>
<td>3/4 lb. in 5 gals. of water</td>
<td>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.</td>
</tr>
</tbody>
</table>

DAYS TO HARVEST

3
HAZARDS TO HUMANS & DOMESTIC ANIMALS

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no instructions for washables exist, use detergent and hot water. Keep and wash The use of human flaggers is prohibited.

for agricultural pesticides [40 CFR 170.240(d)(6)].

See Engineering Controls for additional requirements.

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.

In addition, all Mixers and Loaders and all Applicators using low pressure hand wand application equipment must wear:

≥ 14 mils, Nitrile rubber

≥ 14 mils and Neoprene

chemical-resistance category selection chart.

PERSONAL PROTECTIVE EQUIPMENT (PPE):  Harmful if swallowed.

CAUTION

This material contains a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure but deci-

Transportation: CHEMTREC ...........................................................................................................................................................1-800-424-9300

GENCIES, PHONE 24 HOURS A DAY:

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR THE FOLLOWING EMER-

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

•   If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth,

If inhaled:

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

or clothing:

•   Rinse skin immediately with plenty of water for 15-20 minutes.

•   Take off contaminated clothing.

If on skin

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

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

If swallowed:

•  Call a poison control center or doctor immediately for treatment advice.

•   Do not give anything by mouth to an unconscious person.

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

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

Acephate is an organophosphate, cholinesterase inhibitor.

PRECAUTIONARY STATEMENTS

NOTE TO PHYSICIAN

LONG SLEEVED SHIRT AND LONG PANTS, CHEMICAL-RESISTANT GLOVES SUCH AS BUTYL RUBBER

AMVAC OFFERS THIS PRODUCT, AND BUYER ACCEPTS IT, SUBJECT TO THE FOREGOING LIMITED WARRANTY WHICH MAY BE VARIED ONLY BY AGREEMENT IN WRITING SIGNED BY AN AUTHORIZED REPRESENTATIVE OF AMVAC.
NET WEIGHT 10 POUNDS
(SOLUBLE INSECTICIDE)

*Acephate

Inert Ingredients

Total

*O,S-Dimethyl acetylphosphoramidothioate

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

EPA Reg. No.5481-8978

EPA Est. 39578-TX-01

KEEP OUT OF REACH OF CHILDREN

CAUTION
SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.
Orthene 97 10 lb. booklet • 12589-5 • Base

NET WEIGHT 10 POUNDS
(SOLUBLE INSECTICIDE)

Active Ingredient By Wt. 97.4%
*Acetate

Inert Ingredients 2.6%
Total 100.0%

*O,S-Dimethyl acetylphosphoramidothioate

U.S. Pat. No. 6,013,272
EPA Reg. No. 5481-8978
EPA Est. 39578-TX-01

For Use Only By Professional Applicators

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE ATTACHED BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS, STORAGE AND DISPOSAL AND DIRECTIONS FOR USE.

FIRST AID
Acetate 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 a 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.

EMERGENCY INFORMATION
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:
Transportation: CHEMTREC ........................................ 1-800-424-9300
Other: AMVAC ............................................................ 1-323-264-3910

NOTE 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.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION: Harmful if swallowed.

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 intermittent 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) permit 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 beneficial insects. Do not apply this product or allow it to drift to blooming crops or weeds when bees are actively visiting the treatment area.