

66222-123

3/8/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Brooke Hedrick  
Makhteshim Agan of North America, Inc.  
3120 Highwoods Blvd., #100  
Raleigh, NC 27604

MAR 08 2012

Subject: Label Amendment – adding a restriction against succulent green beans  
EPA Registration No. 66222-123  
Submission Date: November 6, 2012  
Decision #: 471877

Dear Brooke Hedrick:

The labeling referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. Submit two copies of your final printed labeling before you release the product for shipment. A stamped copy is enclosed for your records. If you have any questions, please contact me at (703) 347-0263 or [rogala.jessica@epa.gov](mailto:rogala.jessica@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Venus Eagle".

for Venus Eagle  
Product Manager 01  
Insecticide-Rodenticide Branch  
Registration Division (7505P)

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# ACEPHATE 90 PRILL

## Agricultural & Fire Ant Insecticide

	% BY WT.
ACTIVE INGREDIENT: Acephate (O,S-Dimethyl acetylphosphoramidothioate) .....	90.0%
OTHER INGREDIENTS: .....	10.0%
<b>TOTAL</b>	<b>100.0%</b>

**KEEP OUT OF REACH OF CHILDREN**

# CAUTION

<b>FIRST AID</b>	
Contains an organophosphate that inhibits cholinesterase.	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p><b>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</b> You may also contact Prozar at 1-877-250-9291 for emergency medical treatment information.</p> <p><b>NOTE TO PHYSICIAN:</b> Acephate is a cholinesterase inhibitor. If signs of cholinesterase inhibition appear, atropine is antidotal. 2-PAM may also be used in conjunction with atropine but should not be used alone.</p>	

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Causes eye irritation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust or spray mist. Wash hands thoroughly after handling. Do not allow children to come into contact with treated areas until sprays have dried.

### 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
- Socks and shoes
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride for all mixers and loaders, and for applicators using hand-held application equipment

**In addition, all mixers and loaders and applicators using low pressure hand wand application equipment must wear:**

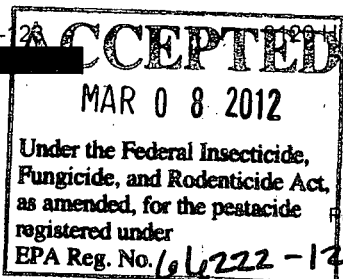
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter

See engineering controls for additional requirements.

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

Manufactured for:  
Makhteshim Agan of North America, Inc.  
Suite 100 4515 Falls of Neuse Road, Suite 300  
Raleigh, NC 27604 27609

EPA Reg. No. 66222-2A  
EPA Est. No. [REDACTED]



**USER SAFETY RECOMMENDATIONS**

**Users should:**

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

**ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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.**

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Cover or incorporate spills.

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

Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**DIRECTIONS FOR USE**

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

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 until 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.

**CHEMIGATION STATEMENT**

Applications to cranberries may be made using sprinkler irrigation systems. Do not apply by chemigation to any other crop, or to cranberries using any other type of irrigation system.

**TANK MIXES**

NOTICE: Tank mixing this product with any other product which is not specifically and expressly authorized by the label shall be exclusive risk of the 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.

**SPRAY DRIFT**

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.

Do not allow spray to drift from the application site and contact people, structures people occupy at any time, and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

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**For Ground Boom Application:** Apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer. Use fine, medium, or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles.

**For Air Blast Applications:** Direct spray above foliage and turn off outward pointing nozzles at row ends and outer rows. Apply only when wind speed is 3-10 mph at the application site as measured by an anemometer outside of the treated area on the upwind side.

**For Aerial Applications:** The boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 3-10 mph as measured by an anemometer. Use fine, medium, or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or the crop canopy.

For overhead chemigation, apply only when wind speed is 10 mph or less.

The applicator also must use all other measures necessary to control drift.

**MIXING PROCEDURES**

(1) Be sure sprayer is clean and not contaminated with any other materials or crop injury or sprayer clogging may result. (2) Fill tank ¼ full with clean water. (3) Start agitation. (4) Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. (5) Pour product directly from bag into tank. (6) Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. (7) Add emulsifiable oil, oil concentrate, or tank mix herbicide(s) after this product is thoroughly suspended. (8) Finish filling tank. (9) Empty tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residue. Maintain agitation to avoid separation of materials. (10) If an oil or emulsifiable concentrate film starts to build up in the tank, drain it and clean with strong detergent solution or solvent. (11) Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

**GENERAL INFORMATION**

ACEPHATE 90 PRILL is an insecticide for control of pests on selected agricultural crops and in certain non-crop areas. The active ingredient in ACEPHATE 90 PRILL is acephate, a water soluble insecticide readily absorbed by plant roots and foliage to give systemic control of feeding insects. Insect pests are generally controlled more effectively by ACEPHATE 90 PRILL through ingestion than by contact. Application of ACEPHATE 90 PRILL to maintain control should be repeated only as directed.

FAILURE TO FOLLOW THE DIRECTION FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, AND/OR ILLEGAL RESIDUES.

NOTE: This product is sold by weight and package is full when packed, but due to the product's nature, settling is likely to occur.

When an adjuvant is to be used with this product, Makhteshim Agan of North America, Inc. suggests the use of a Chemical Producers and Distributors Association certified adjuvant.

**GENERAL USE RESTRICTIONS**

- For use on turf, use is limited to sod farms and golf courses, except when applying to mound or spot treatments for fire ant and harvester ant control.
- Not for indoor residential use. For greenhouse use, use is limited to commercial greenhouses for use on tobacco (floatbed), ornamental, floral, and foliage plants.
- Do not use low pressure hand wand application equipment except when applying as a fire ant mound treatment or on ornamental trees, shrubs, and floral plants when grown for non-commercial use.
- Use on succulent green beans as a food crop is prohibited (includes string beans, snap beans, and wax beans). Succulent green bean use is permitted ONLY if grown for seed.

**PREHARVEST INTERVAL**

Observe days interval between last application and harvest indicated by number in ( ) following the crop.

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**BEANS AND LIMA BEANS – Dry and Succulent Forms (see text for PHI)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Fleahoppers Grasshoppers	4.4 to 8.9 oz.	Apply in water at a minimum of 2 gals. spray per acre by air or 20 to 100 gals. spray per acre by ground. Apply when eggs or insects first appear. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater than 0.5 lbs. a.i./acre), repeat at 7 day intervals. For severe insect infestations, use higher rates.
Aphids (excluding Black bean Aphid) Bean Leaf Beetle Bean Leafroller Cabbage Looper Cutworms Green Cloverworm Leafhoppers Mexican Bean Beetle Plant Bugs (Lygus) Soybean Looper Thrips Whitefly (Except Sweetpotato/Silverleaf Whitefly)	8.9 oz. to 1.1 lbs.	
Armyworms (excluding Beet Armyworm) Corn Earworm European Corn Borer	13.3 oz. to 1.1 lbs.	
<ul style="list-style-type: none"> <li>• Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</li> <li>• Do not feed treated vines to livestock.</li> <li>• Allow 1 day between application and harvest on lima beans (succulent form) and 14 days between application and harvest on snap-beans (succulent or dry beans).</li> </ul>		

**RESTRICTIONS FOR SUCCULENT GREEN BEANS GROWN FOR SEED**

- Do not feed crop residues to livestock or allow animals to graze treated areas.
- Do not apply to succulent beans grown for fresh market or processing.
- No portion of the succulent bean plant may be used or distributed for food or feed purposes.
- Seeds grown from succulent beans shall bear a tag or container label which forbids use of the seed for human consumption or animal feed.
- Seeds grown from succulent beans may not be distributed for human consumption or animal feed.

**CELERY (21)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Green Peach Aphid	8.9 oz. to 1.1 lbs.	Apply in water at 50 to 100 gals. spray per acre by ground or in a minimum of 5 gals per acre by air. Apply when eggs or insects appear. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater than 0.5 lbs. a.i./acre), repeat at 7 day intervals.
Fall Armyworms Cabbage Looper	1.1 lbs.	
<ul style="list-style-type: none"> <li>• All celery must be trimmed (tops removed) before shipment for use.</li> <li>• Do not use trimmed (tops) for food or feed.</li> <li>• Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</li> </ul>		

**COLE CROPS (14)**

(Brussels Sprouts and Cauliflower)

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Green Peach Aphid	8.9 oz. to 1.1 lbs.	Apply in water at 25 to 150 gals. spray per acre by ground or a

<p>Cabbage Looper Diamondback Moth Larvae Imported Cabbage Worm</p>	<p>1.1 lbs.</p>	<p>minimum of 5 gals. spray per acre by air. Use the higher rate when heavy infestations of aphids are present. Begin application when insects or eggs first appear. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater then 0.5 lbs. a.i./acre), repeat at 7 day intervals. <b>Diamondback Moth Larvae:</b> 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.</p>
<ul style="list-style-type: none"> <li>Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</li> <li>Do not feed trimmings to livestock or allow animals to graze in treated areas.</li> </ul>		

**COTTON (see text for PHI)**

**GENERAL USE PRECAUTIONS FOR ALL COTTON USES:**

- Do not feed treated forage or gin trash to livestock.
- Do not allow animals to graze on treated areas.
- For aerial application on cotton, do not apply more than 1.0 lb. a.i./acre in California and Arizona, and 0.75 lb. a.i./acre for all other areas of the U.S.
- Do not apply more than 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. This limitation includes all methods of application; i.e. in-furrow, and foliar.

**COTTON IN-FURROW APPLICATION**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
<p>Aphids* Thrips Black (Greasy) Cutworm (Except CA) * Excluding Cotton Aphids in AZ &amp; CA</p>	<p>8.9 oz. to 1.1 lbs.  NOTE: for the Blacklands of Texas use 1.1 lbs. per acre ACEPHATE 90 PRILL</p>	<p>Apply ACEPHATE 90 PRILL in 3 to 5 gals. of water per acre as an in-furrow spray. ACEPHATE 90 PRILL can be mixed with fungicides that are sprayed in-furrow for disease control. Flat-fan nozzles used for in-furrow application should be set so that the fanned spray pattern is aligned with the row to insure good spray deposition in the seed furrow. Cone type nozzles may not provide a spray pattern that insures maximum spray deposition in the seed furrow, and should be avoided. Spray systems that employ metal or plastic tubing for delivery of spray solution into the seed furrow should have tubing securely fastened to the furrow opener and should be checked frequently to insure that the tubing is properly positioned to deposit spray solution into the seed furrow.</p>

**COTTON FOLIAR APPLICATION (21)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE		ADDITIONAL USE INSTRUCTIONS
	Ground	Aerial	
Thrips	2.5 to 3.3 oz.	2.5 to 3.3 oz.	Apply in water at 3 to 10 gals. spray per acre by air (minimum 5 gals per acre in CA and AZ) or 10 to 25 gals. spray per acre by ground.
Plant Bugs (Lygus)	4.4 oz. to 1.1 lbs. (East of Rockies)	4.4 oz. to 13.3 oz. (East of Rockies)	Apply when eggs or insects first appear. Repeat as necessary but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater then 0.5 lbs. a.i./acre), repeat at 7 day intervals. <b>Lygus:</b> Use higher rate for lygus adults that have migrated into cotton.
Fleahopper	4.4 oz.	4.4 oz.	
Cotton Aphid (excluding AZ and CA)	8.9 oz. to 1.1 lbs.	8.9 oz. to 13.3 oz.	<b>Cotton Aphid:</b> This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations.
Whitefly (excluding Sweetpotato /Silverleaf Whitefly)	8.9 oz. to 1.1 lbs.	8.9 oz. to 13.3 oz. (East of Rockies)  8.9 oz. to 1.1 lbs. (CA & AZ)	<b>Armyworms &amp; Cabbage Looper:</b> Apply when eggs appear. Do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. <b>Bollworm and Tobacco Budworm --</b> Early season light infestation use 8.9 oz. per acre. Mid and late season moderate to severe infestations use 13.3 oz. to 1.1 lbs. per acre. Apply when eggs appear. Do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. <b>Adult/Larvae:</b> Moths are controlled when they come in direct

<p>Armyworms (excluding Beet Armyworm) Cabbage Looper</p>	<p>1.1 lbs.</p>	<p>13.3 oz. (East of Rockies)  1.1 lbs. (CA &amp; AZ)</p>	<p>contact with spray particles during application. Moth kill is most likely to occur when application is made late in the evenings during periods of peak activity. <b>DEADHATCH:</b> Control of emerging larvae by consumption of treated egg casings. <b>Pink Bollworm:</b> Apply when insects appear. Do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</p>
<p>Bollworm Tobacco Budworm Adults Larvae Eggs (DEADHATCH)</p>	<p>8.9 oz. to 1.1 lbs. (East of Rockies) 1.1 lbs. (CA &amp; AZ)</p>	<p>8.9 oz. to 13.3 oz. (East of Rockies) 1.1 lbs. (CA &amp; AZ)</p>	

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COTTON FOLIAR APPLICATION (21) (continued)

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE		ADDITIONAL USE INSTRUCTIONS
	Ground	Aerial	
Stinkbugs	13.3 oz.	13.3 oz.	
Pink Bollworm (AZ & CA)	1.1 lbs.	1.1 lbs.	
Cutworms	13.3 oz.	13.3 oz.	

**Cutworms:** 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 and repeat application as necessary to maintain control but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater than 0.5 lbs. a.i./acre), repeat at 7 day intervals.

COTTON TANK MIXES (see text for PHI)

GENERAL USE PRECAUTIONS TO FOLLOW WITH ALL TANK MIX PARTNERS:

- Do not feed gin trash or treated forage to livestock. Do not allow livestock to graze on treated areas.
- Do not apply more than 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. This limitation includes all methods of application; i.e. in-furrow, and foliar.

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.

RESISTANCE MANAGEMENT

Cotton pest control programs, especially those for control of Sweetpotato/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.

INSECTS	AMOUNT ACEPHATE 90 PRILL + TANK MIX PARTNER PER ACRE	ADDITIONAL USE INSTRUCTIONS
Sweetpotato /Silverleaf Whitefly	8.9 oz. ACEPHATE 90 PRILL + 10 2/3 to 16 fl. oz. DANITOL® 2.4 EC	Apply in water at 3 to 10 gals. spray per acre by air (minimum 5 gals per acre in CA) or 10 to 25 gals. spray per acre by ground. Comply with all applicable directions, restrictions, and precautions on the EPA registered label for DANITOL® 2.4 EC Spray. Apply when insects first appear or when damage is first noted and repeat application as necessary to maintain control but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals.

- Do not apply within 21 days of harvest.
- Do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.



INSECTS	AMOUNT ACEPHATE 90 PRILL + TANK MIX PARTNER PER ACRE	ADDITIONAL USE INSTRUCTIONS
Armyworms (excluding Beet Armyworm) Bollworms Cabbage Looper Cotton Aphid Cutworms* Fleahopper Grasshoppers Pink Bollworm Plant Bugs (Lygus, Mirids) Salt Marsh Caterpillar Thrips Tobacco Budworm Whitefly (excluding Sweetpotato/Silverleaf Whitefly)	<p><b>Ground Application:</b>                      4.4 oz. to 1.1 lbs.                      ACEPHATE 90 PRILL                      +                      1 to 2 pts.                      CHLORPYRIFOS 4E</p> <p><b>Aerial Application:</b>                      4.4 to 13.3 oz.                      ACEPHATE 90 PRILL                      +                      1 to 2 pts                      CHLORPYRIFOS 4E                      (East of the Rockies)</p> <p>4.4 oz. to 1.1 lbs.                      ACEPHATE 90 PRILL                      +                      1 to 2 pts.                      CHLORPYRIFOS 4E                      (CA &amp; AZ)</p>	<p>Comply with all applicable directions, restrictions, and precautions on the EPA registered label for CHLORPYRIFOS 4E 4 E.</p> <p><b>*Cutworms:</b> Use 13.3 oz. per acre of ACEPHATE 90 PRILL.</p> <p><b>By Ground:</b> Ground application is recommended. Apply in 10 to 25 gals. of spray per acre. 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><b>By Air:</b> Aerial applications are less effective, but may be used. Apply in 3 to 10 gals. spray per acre (minimum 5 gals spray per acre in CA). Apply when insects first appear or when damage is first noted and repeat application as necessary to maintain control but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater then 0.5 lbs. a.i./acre), repeat at 7 day intervals.</p>
<ul style="list-style-type: none"> <li>Do not apply within 21 days of harvest.</li> <li>Do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</li> </ul>		

**COTTON TANK MIXES WITH PYRETHROIDS**

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

INSECTS	ACEPHATE 90 PRILL AND TANK MIX PARTNER	AMOUNT OF ACEPHATE 90 PRILL + TANK MIX PARTNER PER ACRE		ADDITIONAL USE INSTRUCTIONS
		Ground	Aerial	
Aphids Bollworm Cabbage Looper Cotton Leaf Perforator Cutworms Fall Armyworm Fleahoppers Pink Bollworm (AZ & CA) Plantbugs Stinkbugs Sweetpotato/Silverleaf Whitefly Thrips Tobacco Budworm Whitefly	ACEPHATE 90 PRILL + one of the following	8.9 to 13.3 oz. per acre + one of the following	8.9 to 13.3 oz. per acre (East of the Rockies) 8.9 oz. to 1.1 lbs. per acre (CA & AZ) + one of the following	<p>Apply in water at 3 to 10 gals. spray per acre by air (minimum 5 gals per acre in CA) or 10 to 25 gals. spray per acre by ground. Begin applications when eggs or insects appear and apply as needed to maintain control <u>but</u> do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater than 0.5 lbs. a.i./acre), repeat at 7 day intervals.</p> <p><b>By Ground:</b> Ground application is recommended. Control is most effective when ground applications are made in the evenings and sprays are directed toward the base and lower portion of plant.</p> <p><b>By Air:</b> Aerial applications are less effective, but may be used. Apply when eggs or insects first appear or damage is first noted. Repeat application as necessary to maintain control but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</p>
		For Cutworms and Stinkbugs use 13.3 oz. per acre of ACEPHATE 90% PRILLS + one of the following		
		Refer to the CYPERMETHRIN 2.5 EC approved label for use instructions.		
		Refer to the ASANA® XL approved label for use instructions.		
		Refer to the BAYTHROID® 2 EC approved label for use instructions.		
		Refer to the BIFENTHRIN 2 EC approved label for use instructions.		
		Refer to the KARATE® 1 EC or Silencer™ approved label for use instructions.		
Refer to the SCOUT X-TRA** approved label for use instructions.				

- Do not apply within 21 days of harvest when using Cypermethrin 2.5EC, Asana XL, Baythroid 2EC, Bifenthrin 2EC, Karate 1EC, and Silencer, and within 28 days of harvest when using Scout X-Tra.
- Do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.

**CRANBERRIES (90)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Cranberry Blossom Worm Gypsy Moth False Armyworm Fireworms Spanworms Sparganothis	1.1 lbs.	Apply in water by air, ground or with sprinkler irrigation systems. Use a minimum of 2 gals. spray per acre by air. Use sufficient water to give thorough coverage with ground or sprinkler equipment.
<ul style="list-style-type: none"> <li>• Do not make more than one application per growing season.</li> <li>• Do not apply from start of bloom until all berries set.</li> </ul>		

**SPRINKLER IRRIGATION 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.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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 supplies are in place.

A person knowledgeable of the chemigation system and responsible for its operation should shut the system down and make necessary adjustments should the need arise.

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.

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 fitted with a system interlock.

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

**Solid Set Systems:** 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 insure 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 below.

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

**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 angle turn to insure adequate mixing.

Application of more than label listed quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness.

**HEAD LETTUCE – Crisphead type only (see text for PHI)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Aster Leafhopper Green Peach Aphid	8.9 oz. to 1.1 lbs.	Apply in water at 5 to 10 gals. of spray per acre by air or 10 to 60 gals. of spray per acre (broadcast) by ground. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater than 0.5 lbs. a.i./acre), repeat at 7 day intervals. Apply as necessary to maintain desired control but do not exceed maximum application rate of 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
Cabbage Looper Armyworms (excluding Beet Armyworm)	1.1 lbs.	
<ul style="list-style-type: none"> <li>Do not apply after first head begins to form to crops that germinate from mid-September through November in desert areas of AZ and CA.</li> <li>Do not feed trimmings to livestock or allow animals to graze on treated areas.</li> <li>Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</li> <li>Do not apply within 21 days of harvest. Applications may be made in spring, summer, and early fall crops in all areas and winter crops in Florida and Texas, late fall crops in Arizona, winter crops in Arizona and California.</li> </ul>		

**MINT (14)**

**Spearmint and Peppermint**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Alfalfa Looper Aphids Cutworms Strawberry Root Weevil Adult Black Vine Weevil Adult	1.1 lbs. (17.7 oz.)	Apply in water at 5 to 10 gals. spray per acre by air or 20 to 100 gals. spray per acre by ground. Apply when eggs or insects first appear. Make one repeat application, if necessary, to maintain control but do not exceed maximum application rate of 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. Two applications 10 to 14 days apart may be necessary to reduce heavy infestations. <b>Strawberry Root and Black Vine Weevil:</b> 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.
<ul style="list-style-type: none"> <li>Do not use spent mint hay for feed for dairy animals.</li> <li>Do not graze treated areas.</li> <li>Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.</li> </ul>		

**NON-BEARING CITRUS**

INSECTS	AMOUNT OF ACEPHATE 90 PRILL PER ACRE	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Aphids Grasshoppers Katydid Mealybugs Orangedogs Plant Bugs Thrips Whiteflies (except Sweetpotato/Silverleaf Whitefly)	8.9 oz.	Repeat spray application at 7 to 10 day intervals to maintain control.	Apply ACEPHATE 90 PRILL in 100 to 200 gals. of water per acre by ground application. 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*	8.9 to 13.3 oz.		
Ants Fire Ants and Harvester Ants* Only	Mound Treatment Method: Mix 1/3 lb. in 31.9 gals. of water	Repeat application as necessary to maintain control.	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.
<ul style="list-style-type: none"> <li>Do not graze treated areas.</li> </ul>			

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- Do not harvest citrus for one year after treatment.
  - Use as a mound treatment only: only for use on fire ants and harvester ants.
- \*Not registered for use in California for control of Citrus Blackfly or Harvester Ants.

**NON-CROP AREAS**

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

INSECTS	AMOUNT OF ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Grasshoppers	4.4 oz.	For early to mid-season application. Apply in water at 1 to 5 gals. spray per acre by air (minimum 5 gals per acre in CA) or 10 to 20 gals. spray per acre by ground. 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.

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

**WASTELAND (NON-FOOD/NON-FEED PRODUCING AREAS)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Black Grass Bugs Grasshoppers Mormon Crickets	1.7 to 2.2 oz.	Apply in water at 1/2 gal. spray per acre by air (minimum of 5 gals. per acre in CA) or 10 to 20 gals. spray per acre by ground. 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.

• Do not make more than one application per season.  
• Do not graze or feed vegetation cut from treated areas.

**PEANUTS**

**FOLIAR APPLICATION (14; of digging)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Grasshoppers	4.4 to 8.9 oz.	Apply in water at 10 to 50 gals. spray per acre by ground or in 5 to 10 gals. spray per acre by air.
Thrips	6.7 to 13.3 oz.	
Corn Earworm Fall Armyworm Leafhoppers Loopers Velvetbean Caterpillar	13.3 oz. to 1.1 lbs.	Begin applications when eggs or insects first appear and repeat as needed to maintain control but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater than 0.5 lbs. a.i./acre), repeat at 7 day intervals. ACEPHATE 90 PRILL can be tank mixed with 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. To determine physical compatibility, pour the listed 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 five 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. Combinations should be kept agitated and should be applied immediately. Do not allow combinations to set for prolonged periods in the chemical supply tank.

• Do not apply more than 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle, this includes the use on peanuts as a foliar spray in addition to the peanut planter box seed treatment use.  
• Do not feed treated forage or hay to livestock or allow animals to graze treated areas.

**PEPPERS**

**BELL PEPPERS (7)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Grasshoppers	4.4 to 8.9 oz.	Apply in water at a minimum of 3 gals. spray per acre (minimum 5 gals. spray per acre in CA) by air or 25 to 150 gals. spray per acre by ground.  Apply when eggs or insects appear. Repeat as necessary until insects have been reduced below economically damaging numbers but do not exceed maximum application rate of 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle. For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater than 0.5 lbs. a.i./acre), repeat at 7 day intervals.
Cabbage Looper Green Peach Aphid Tobacco Hornworm	8.9 oz. to 1.1 lbs.	
European Corn Borer	13.3 oz. to 1.1 lbs.	

- Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.

**NON-BELL PEPPERS (For Use in Midwestern, Eastern States, and Puerto Rico Only)(7)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Aphids	8.9 oz.	Apply in water at 40 to 150 gals. spray per acre with ground equipment. Repeat at a 7 to 10 day interval as necessary but do not exceed maximum application rate of 1.1 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.

- Do not apply more than 1.1 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.

**SOYBEANS (14)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Grasshopper, Thrips	0.28 to 0.56 lb.	For Foliar Application apply in 5 to 10 gals. spray per acre by air or in 10 to 50 gals. spray per acre by ground. Repeat treatment as necessary to maintain control, but do not exceed a maximum of 1.66 lbs./A (1.5 lbs. ai/A) per season
Potato Leafhopper, Stinkbugs	0.56 to 1.1 lbs.	
Armyworms (except Beet) Bean leaf beetle Cabbage looper Green cloverworm Mexican bean beetle Soybean aphid Threecornered alfalfa hopper Velvetbean caterpillar	0.83 to 1.1 lbs.	

- Do not graze or cut vines for hay or forage.
- Do not apply more than 1.66 lbs./A (1.5 lbs. ai/A) of Acephate 90 Prill per season.
- For rates up to 0.56 lb./A, at least 3 days must pass between applications of Acephate 90 Prill.
- For rates between 0.56 lb./A and 1.1 lbs./A, at least 7 days must pass between applications of Acephate 90 Prill.

**TOBACCO (NOT REGISTERED FOR USE IN CALIFORNIA)**

**GENERAL USE RESTRICTION FOR ALL APPLICATIONS ON TOBACCO:**

- Do not apply more than 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle, this includes the use in transplant water, plant bed soil, floatbed (greenhouse), and foliar application.

**TOBACCO FLOATBED APPLICATIONS (except California)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	13.3 oz.	Apply to foliage at the equivalent of 1 tablespoon in 3 gal. of water per every 1,000 sq. ft. of bed. Apply evenly to ensure through coverage. NOTE: Floatbed water should be disposed of in the transplant field through the transplant water or through foliar spray.

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**TOBACCO PLANT BED APPLICATIONS (except California)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Cutworm Flea Beetle Green Peach Aphid Tobacco Aphid	13.3 oz.	Apply to foliage at the equivalent of 1 tablespoon in 1 gal. of water per every 1,000 sq. ft. of bed. Apply evenly to ensure thorough coverage.

**TOBACCO TRANSPLANT WATER APPLICATION (except California)**

Transplant water applications should be made using mechanical transplant equipment only. Using such equipment, the insecticide/water mixture is mechanically applied directly into the soil along with the transplanted plants.

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Cutworms Flea Beetle Green Peach Aphid Potato Tuberworm Tobacco Aphid Tobacco Thrips	13.3 oz.	Provides control for approximately 3 to 4 weeks after transplanting. For later season control of these insects, apply a foliar spray of ACEPHATE 90 PRILL. Apply in a minimum of 100 gals. of transplant water per acre.
<ul style="list-style-type: none"> <li>Do not use more than 13.3 oz. of ACEPHATE 90 PRILL per acre as a transplant-water application as some phytotoxicity may occur.</li> </ul>		

**TOBACCO FOLIAR APPLICATION (3) (except California)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Grasshoppers	4.4 to 8.9 oz.	Apply in 10 to 50 gals. water per acre with ground equipment or a minimum of 3 gals. per acre by air. Apply on a 7 day schedule or as needed but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
Flea Beetle Green Peach Aphid Tobacco Hornworm Tobacco Thrips	8.9 oz.	
Stinkbugs Tobacco Aphid Vegetable Weevils	8.9 to 13.3 oz.	For applications of 8.9 oz. ACEPHATE 90 PRILL or less (0.5 lbs. a.i./acre or less), repeat at 3 day intervals. For applications greater than 8.9 oz. of ACEPHATE 90 PRILL (greater then 0.5 lbs. a.i./acre), repeat at 7 day intervals.
Budworm Cabbage Looper Cutworm Japanese Beetle	13.3 oz.	

**TOBACCO SOIL APPLICATION (3) (except California)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Ants Fire Ants and Harvester Ants Only	Mound Treatment - Mix 1/3 lb. in 31.9 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.
<ul style="list-style-type: none"> <li>Treat maximum of 13 mounds per acre.</li> <li>Do not treat more than once per season.</li> <li>Use as a mound treatment only: only for use on fire ants and harvester ants.</li> </ul>		

**SPECIALITY USES**

**NON CROP AREAS (FIELD BORDERS, FENCEROWS, ROADSIDES, DITCHBANKS, BORROW PITS)**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE SPRAY PER ACRE	ADDITIONAL USE INSTRUCTIONS
Ants Fire Ants and Harvester Ants* Only	Mound Treatment: Mix 1/3 lb. in 31.9 gals. of water. Apply 1 gal. of mix to each mound area by sprinkling the mound until it is wet and treat a four (4) foot diameter circle around the mound.	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest. Grass in treated area may be injured.

- Do not treat mound more than once per season.
- Use as a mound treatment only; only for use on fire ants and harvester ants.
- \*Not registered for use in California for control of Harvester Ants.

**CONTAINER GROWN NURSERY STOCK**

PLANTS	INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE PER 100 GALS.	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Container Grown Nursery Stock (Arborvitae Azalea Camellia Rhododendron Roses Viburnum Yew)	Black Vine Weevil Strawberry Root Weevil	13.3 oz.	Application should be made by of 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 ACEPHATE 90 PRILL per 100 gals. of solution so as to thoroughly drench the root system.
	Ants (excluding fire, harvester, carpenter, and pharaoh ants)	13.3 oz.	Apply as needed to control the pest.	

**ORNAMENTAL TREES AND SHRUBS**

PLANTS	INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE PER 100 GALS.	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Trees and Shrubs (except Flowering Crabapple see below)	Aphids Bagworms Birch Leafminer Tent Caterpillar* Lace Bugs Leafrollers	4.4 oz.	As the insects begin to appear.	Apply the specified amount of ACEPHATE 90 PRILL 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 1.1 lbs. per 100 gals. water for Gypsy Moth control and 13.3 oz. per 100 gals. water for Tent Caterpillar control.
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae* Webworms	8.9 oz.	As the insects begin to appear.	
	Scales (Crawlers)	8.9 oz.	As crawlers begin to appear. Repeat applications at a 2 week or more interval. May be necessary where there is continuous crawler production.	
	Ponderosa Pine Needle Miner	8.9 oz.	Time of application is important. Consult your Farm advisor or County Extension Agent.	
	Grasshoppers	8.9 oz.	As the grasshoppers begin to appear.	
	California Oakworm Cankerworms (Spring and Fall)	4.4 to 8.9 oz.	As the insects begin to appear. Use the higher amount when the larger larvae are present.	

ORNAMENTAL TREES AND SHRUBS (continued)

PLANTS	INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE PER 100 GALS.	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
	Nantucket Pine Tip Moth Larvae	13.3 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	13.3 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.	
	Box Elder Bugs Sawflies Budworms Leafhoppers	13.3 oz.	As the insects begin to appear.	
	Japanese Beetle	1.1 lbs. (17.7 oz.)	As the Japanese Beetles begin to appear. Repeat applications at 2 week intervals may be necessary.	
	Elm Leaf Beetle (larvae)	1.1 lbs. (17.7 oz.)	As the larvae begin to appear. ACEPHATE 90 PRILL will not prevent Elm Leaf Beetle eggs from hatching.	
Douglas Fir Christmas Trees	Douglas Fir Needle Midge	8.9 oz.	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 ACEPHATE 90 PRILL in not less than 2 gals. of spray per acre by air or in 100 gals. of spray per acre by ground.
Flowering Crabapples	Aphids Tent Caterpillars Leafrollers	4.4 oz.	As the insects begin to appear.  Do not apply more often than 3 times in a growing season at a 4 week interval.	Apply the specified amount of ACEPHATE 90 PRILL in 100 gals. water with a hydraulic sprayer.
Crape Myrtle	Aphids	1/3 lb. in 6 to 8 Tbsp. of water	As aphids begin to appear.	* See below

\*Make a paint-on slurry by mixing the specified amount of ACEPHATE 90 PRILL with 6 to 8 tablespoons 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.

**USE PRECAUTIONS FOR ALL ORNAMENTAL TREES AND SHRUBS:**

- 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.



- Apply at a minimum of 2 week intervals unless otherwise indicated.
- Caution: Phytotoxicity has occurred on the following Crabapple varieties: Hops, Ichonoski, Malusfloribunda, Pink Perfection, Red Wine and Snow Cloud.

**GOLF COURSE AND SOD FARM TURFGRASS (3 DAYS FOR SOD FARMS)**

Do not allow livestock to graze treated areas. Do not feed treated grass to livestock. Use is limited to sod farms and golf courses, except when applying by mound or spot treatment for fire ant and harvester ant control. Aerial application to turf is prohibited.

INSECTS	AMOUNT ACEPHATE 90 PRILL PER 1,000 SQ. FT.		TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
	Golf Course	Sod Farm Turfgrass		
Fall Armyworm Yellow Striped Armyworm Southern Armyworm	0.4 to 1.0 oz. (1.1 to 2.7 lbs. per acre)	0.4 to 1.0 oz. (1.1 to 2.7 lbs. per acre)	As the insects appear. Repeat application at 7 to 14 day intervals as needed.	Apply the specified amount of ACEPHATE 90 PRILL per 1,000 sq. ft. Use a minimum of 5 gals. water per 1,000 sq. ft. to obtain good coverage.
Cutworm	1.0 to 1.6 oz. (2.7 to 4.3 lbs. per acre)	1.0 to 1.2 oz. (2.7 to 3.2 lbs. per acre)		
Chinch bugs	1.0 to 1.6 oz. (2.7 to 4.3 lbs. per acre)	1.0 to 1.2 oz. (2.7 to 3.2 lbs. per acre)	Repeat application at 7 to 14 day intervals as needed.	Apply the specified amount of ACEPHATE 90 PRILL per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage.
Sod Webworm (Crambus spp.)	0.4 to 0.8 oz. (1.1 to 2.3 lbs. per acre)	0.4 to 0.8 oz. (1.1 to 2.3 lbs. per acre)	As sod webworms begin to appear. Use the higher amount when quick knockdown is needed or with heavy infestations. Repeat application at 7 to 14 day intervals as needed.	
Leafhopper	0.8 oz. (2.3 lbs. per acre)	0.8 oz. (2.3 lbs. per acre)	As the leafhoppers begin to appear. Repeat application at 7 to 14 day intervals as needed.	Apply the specified amount of ACEPHATE 90 PRILL per 1,000 sq. ft. Use 1 to 15 gals. water per 1,000 sq. ft. to obtain good coverage. Apply during late afternoon or early evening hours and after irrigation. Do not irrigate after application.
Mole Crickets (Except CA) Spittlebug (Except CA)	0.8 to 1.6 oz. (2.3 to 4.3 lbs. per acre)	0.8 to 1.2 oz. (2.3 to 3.2 lbs. per acre)	As mole crickets begin to appear. For knockdown of existing populations, repeat application at 7 to 14 day intervals as needed. For heavy infestations, use the higher dosage rate.	
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 acephate. The following lemon-scented products have been shown to be effective flushing agents: Lemon Joy, Lemon Palmolive, and Mighty Myrt Products Manufacture- Base pure lemon fragrance. The use rate for these lemon-scented products is 2 teaspoons per gallon of water for small total mix volume or 6 fl. oz per 50 gals. of water for large mix volume.				
Greenbug (Schizaphis graminun) Grasshoppers	0.4 oz. (1.1 lbs. per acre)	0.4 oz. (1.1 lbs. per acre)	Apply when insects or their damage first appears. Repeat application at 7 to 14 day intervals as needed.	Apply the specified amount of ACEPHATE 90 PRILL. 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)	1.3 to 1.6 oz (3.4 to 4.3 lbs. per acre)	1.2 oz. (3.2 lbs. per acre)	Apply when insects or their damage first appear. Repeat application at 7 to 14 day intervals as needed.	Apply the specified amount of ACEPHATE 90 PRILL per 1,000 sq. ft. Use a minimum of 5 gallons water per 1,000 sq ft. Irrigate lightly after application (not more than 1/2 inch). Use the higher rate for severe infestations.
<b>Dichondra</b> (Plant Site for Golf Course and Sod Farm Turfgrass)				
Cutworm Flea Beetle Southern Armyworm Yellow Striped Armyworm	0.8 to 1.6 oz. (2.3 to 4.3 lbs. per acre)	0.8 to 1.2 oz. (2.3 to 3.2 lbs. per acre)	As the insects appear. Repeat application at 7 to 14 day intervals as needed.	Apply the specified amount of ACEPHATE 90 PRILL per 1,000 sq. ft. Use a minimum of 15 gals. of water per 1,000 sq. ft. to obtain good coverage.

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

PLANT	INSECTS	AMOUNT ACEPHATE 90 PRILL	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Turfgrass Residential, Recreational and Commercial Turf	Fire Ants and Harvester Ants* (Only)	Mix 1/3 lb. in 31.9 gals. of water. Apply 1 gal. of mix to each mound area by sprinkling the mound until it is wet and treat a four (4) foot diameter circle around the mound.	For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest.	Apply the specified amount of ACEPHATE 90 PRILL as directed. Grass in treated area may be injured. Do not treat mound more than once per season.
<ul style="list-style-type: none"> <li>Use as a mound treatment only; only for use on fire ants and harvester ants.</li> </ul> *Not registered for use in California for control of Harvester Ants.				

**OUTDOOR AND PERIMETER SPRAY EXCLUDING RESIDENTIAL TURF**

LOCATION	INSECTS	AMOUNT ACEPHATE 90 PRILL PER GALLON	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Outdoor and perimeter area excluding residential turf	Wasps	1.3 oz.	Treat early or late in the day as wasps are generally less active during these times.	Apply the specified amount of ACEPHATE 90 PRILL 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) Crickets Cockroaches Earwigs Pillbugs	1.3 oz.	As the insects appear.	Apply specified amount of ACEPHATE 90 PRILL per each gallon of water used. Apply to a band of soil 6 to 10 feet adjacent to the structure and to a height of 2 to 3 feet on the foundation where pests may be active or may find entrance. Also apply as a residual spray or with a paint brush to surfaces of buildings, window frames, shutters, entry-ways, screens, eaves, patios, garages, carports, around garbage areas and other areas where these pests congregate.

**OUTDOOR FLORAL CROPS AND GROUND COVERS**

PLANTS	INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE PER 100 GALS.	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Chrysanthemums Daisies Dahlias Easter Lily Gladioli Gyposophila Pachysandra Peony Roses Sedum Statice Strawflower Yarrow Zinnia	Aphids Thrips Lygus	8.9 oz.	As insects begin to appear. Repeat applications at 2 week intervals may be necessary.	Apply the specified amount of ACEPHATE 90 PRILL in 100 gals. water with a hydraulic sprayer as a full coverage spray. Multiple applications may cause slight tip burn or marginal leaf necrosis on some varieties. Test on a few plants to determine varietal susceptibility.
Boston Ivy	Japanese Beetles	1.1 lbs. (17.7 oz.)	As the Japanese Beetles begin to appear. Repeat applications at 2 week intervals may be necessary.	
Roses	Japanese Beetles	12.3 oz.		

**GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS**

PLANTS	INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE PER 100 GALS.	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Roses	Leafrollers	8.9 to 12.3 oz.	As leafrollers begin to appear. Use the higher amount when large larvae are present.	Apply the specified amount of ACEPHATE 90 PRILL in 100 gals. water with a hydraulic sprayer as a full coverage spray.
Foliage Plants Anthuriums Cacti Orchids Poinsettia	Aphids	4.4 oz.	As aphids begin to appear.	Apply the specified amount of ACEPHATE 90 PRILL 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: Bletchum gibbum, Cissus antarctica, Ficus triangularis, Fittonia verschaffeltii, Maranta leuconeura kerchoveana, Plectranthus lutes, Plectranthus australis, Polypodium aureus, Polystichum. Pteris ensiformis, Tolmiea menziesii. Before treating large plantings spray only a few plants and observe 2 weeks for varietal phytotoxicity. Application of ACEPHATE 90 PRILL on Poinsettias after bract formation may result in phytotoxicity on certain varieties.
	Mealybugs Thrips Whiteflies	8.9 oz.	As the insects begin to appear. A repeat application at a 2 week interval may be necessary for control of	
	Scales (Crawlers)	8.9 oz.	As crawlers begin to appear. Repeat applications at a 2 week or more interval may be necessary where there is continuous crawler production.	

**GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS (continued)**

PLANTS	INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE PER 100 GALS.	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Foliage Plants Anthuriums Cacti Orchids Poinsettia	Sweetpotato/ Silverleaf Whiteflies (Except CA)	8.9 oz. plus TAME® 2.4 EC Spray 10 2/3 fl. oz. (0.2lb. a.i.)	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/100gal. See TAME label for instructions.	For Sweetpotato/ Silverleaf whitefly control, apply the specified amount of ACEPHATE 90 PRILL plus TAME® 2.4 EC Spray as a tank mix at a volume necessary to obtain good coverage. Follow the TAME® label for specific instructions on the alternation of TAME® plus ACEPHATE 90 PRILL and TAME® alone and the rotation instruction to avoid potential resistance.
Roses Carnations Chrysanthemums	Aphids Thrips	8.9 oz.	As aphids begin to appear. As thrips begin to appear or at the tight flower bud stage.	Apply the specified amount of ACEPHATE 90 PRILL in 100 gals. water with a hydraulic sprayer as a full coverage spray
<ul style="list-style-type: none"> <li>• Applications cannot be made more than once every 28 days to Carnations and Chrysanthemums.</li> <li>• Caution: Phytotoxicity has occurred on the following Chrysanthemum varieties: Albatross, Bonnie Jean, Dixie, Garland, Gent, 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.</li> <li>• Application to Chrysanthemums and Roses with open flowers may result in flower damage.</li> <li>• 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.</li> </ul>				

**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 concentrated or dilute product into food or drink containers. Store in cool, dry place. Protect from excessive heat. Do not contaminate food or feedstuffs. Do not store or transport near feed or food.

**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:**

**Nonrefillable Container (flexible-bag-all weights):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

**Nonrefillable Container (rigid-fifty lbs. or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Nonrefillable Container (rigid-greater than fifty lbs.):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Refillable Container:** Refillable container. Refill this container with acephate only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL INFOTRAC AT (800) 535-5053.**

**LIMITATION OF WARRANTY AND LIABILITY**

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY.**

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

ASANA® -- Reg. TM of E.I. duPont de Nemours & Co., Inc. for esfenvalerate insecticide.

BAYTHROID® -- Reg. TM of Bayer Crop Protection for cyfluthrin synthetic pyrethroid.

DANITOL® -- Reg. TM of Valent USA Corporation for fenpropathrin insecticide-miticide.

KARATE® -- Reg. TM of Syngenta Crop Protection, Inc. for lambda-cyhalothrin insecticide.

SILENCER™ -- Reg. TM of Makhteshim Agan of North America, Inc.

SCOUT® -- Reg. TM of Aventis Crop Science for tralomethrin pyrethroid insecticide.

TAME® -- Reg. TM of Valent USA Corporation for fenpropathrin insecticide.

Acephate 90 Prill (66222-123)(EPA app 3-14-07)(notif to EPA 10-10-07)(notif to EPA 06-05-08)(notif to EPA 03-10-10) (notif to EPA 10-22-12)