# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

June 26, 2014

**MANA** Laura Phelps 3120 Highwoods Blvd. Suite 100 Raleigh, NC 27604

Dear Ms. Phelps,

Subject: Fast Track Amendment to correct error in precautionary statement and PPE

Acephate 90 Prill

EPA Registration No. 66222-123

Your submission dated: February 11, 2014

The labeling referred to above submitted in connection with the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable.

Please submit one final printed copy of the labeling before releasing the product for shipment. A stamped copy of the labeling is enclosed for your records. If you have any questions regarding this label, please contact Autumn Metzger at (703) 305-5314 or metzger.autumn@epa.gov.

Sincerely,

Venus Eagle, PM 01

Insecticide-Rodenticide Branch

**Registration Division** 

Date: June 26, 2014

# ACCEPTED

06/26/2014

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

66222-123

GROUP 1B Insecticide

# **ACEPHATE 90 PRILL**

Agricultural & Fire Ant Insecticide

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alquien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### Manufactured for:

Makhteshim Agan of North America, Inc. 3120 Highwoods Blvd., Suite 100 Raleigh, NC 27604 How can we help? 1-866-406-MANA(6262)

**EPA Reg. No**. 66222-123

EPA Est. No.

# NET CONTENTS: \_\_\_

	FIRST AID								
	Contains an organophosphate that inhibits cholinesterase.								
IF ON SKIN OR	Take off contaminated clothing.								
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.								
	Call a poison control center or doctor for treatment advice.								
IF	Call poison control center or doctor immediately for treatment advice.								
SWALLOWED:	Do not induce vomiting unless told to do so by the poison control center or doctor.								
	Do not give anything by mouth to an unconscious person.								
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.								
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.								
	Call a poison control center or doctor for treatment advice.								
	•								
IF 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.								
Harra tha anna dead	containing as label with you when colling a policy contained device.								

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact Prosar at 1-877-250-9291 for emergency medical treatment information.

NOTE TO PHYSICIAN: 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.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through skin. Harmful is swallowed or inhaled. Causes eye irritation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash clothing before reuse.

# 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 must wear: and

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

#### In addition, 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.

#### **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.

# **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

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

#### **ENVIRONMENTAL HAZARDS**

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

**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.

# **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.

#### 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.

BEANS AND LIMA BEANS - Dry and Succulent Forms (except succulent green beans)

BEANS AN		d Succulent Forms (except succulent green beans)
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.
Aphids (excluding Black bean Aphid) Bean Leaf Beetle Bean Leafroller Cabbage Looper Cutworms Green Cloverworm Leafhoppers Mexican Been Beetle Plant Bugs (Lygus) Soybean Looper Thrips Whitefly (Except Sweetpotato/Silverleaf Whitefly)	8.9 oz. to 1.1 lbs.	Apply when eggs or insects first appear. Repeat at minimum 7 day intervals.For severe insect infestations, use higher listed rates.
Armyworms (excluding Beet Armyworm)	13.3 oz. to 1.1 lbs.	
Corn Earworm European Corn Borer		

# Restrictions

- Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
- Do not feed treated vines to livestock.
- Allow 1 day between application and harvest on lima beans (succulent form) and 14 days between application and harvest on snap-beans ( dry beans).
- Use in succulent green beans as a food crop is prohibited (including string beans and wax beans). Use in succulent green beans is permitted only if grown for seed.

# 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**

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
Fall Armyworms Cabbage Looper	1.1 lbs.	minimum of 5 gals per acre by air. Apply when eggs or insects appear. Repeat at minimum 7 day intervals.

- 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 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
- Preharvest interval is 21 days.

# **COLE CROPS**

(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
Cabbage Looper Diamondback Moth Larvae Imported Cabbage Worm	1.1 lbs.	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 minimum 7 day intervals.  Diamondback Moth Larvae: This insect has demonstrated an ability to develop resistance to various classes of insecticides.  Consult your local Agricultural Extension Service for current recommended control practices for this insect.

# Restrictions

- Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
- Do not feed trimmings to livestock or allow animals to graze in treated areas.
- Preharvest interval is 14 days.

#### COTTON

#### **RESTRICTIONS 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. per treatment.
- Do not apply more than 4.4 lbs. of ACEPHATE 90 PRILL (4 lb a.i.) 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
Aphids* Thrips Black (Greasy) Cutworm (Except CA) * Excluding Cotton Aphids in AZ & CA		Apply ACEPHATE 90 PRILL in 3 to 5 gals. of water per acre as an infurrow 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.
Restrictions	·	· · · · · · · · · · · · · · · · · · ·

#### Restrictions

- Do not use treated seed for food/ feed purposes or processed for oil.
- Preharvest interval NA.

#### **COTTON FOLIAR APPLICATION**

INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE		ADDITIONAL USE INSTRUCTIONS
	Ground	Aerial	
Thrips	2.5 to 3.3	2.5 to 3.3	Apply in water at 3 to 10 gals. spray per acre by air (minimum 5
	OZ.	OZ.	gals per acre in CA and AZ) or 10 to 25 gals. spray per acre by

Plant Bugs (Lygus)	4.4 oz. to	4.4 oz. to	ground.
	1.1 lbs.	13.3 oz.	Apply when eggs or insects first appear.
	(East of	(East of	Repeat as necessary but do not exceed maximum application rate
	Rockies)	Rockies)	of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
		400	Repeat at minimum 7 day intervalsLygus: Use higher listed rate
	13.3 oz. to	13.3 oz. to	for lygus adults that have migrated into cotton.
	1.1 lbs.	1.1 lbs.	Cotton Aphid: This insect may develop resistance to various
	(CA & AZ)	(CA & AZ)	classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations.
Flooboppor	4.4.07	4.4 oz.	Armyworms & Cabbage Looper: Apply when eggs appear. Do
Fleahopper Cotton Aphid	4.4 oz. 8.9 oz. to	8.9 oz. to	not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90
(excluding AZ and	1.1 lbs.	13.3 oz.	PRILL per acre per crop cycle.
CA)	1.1 105.	13.3 02.	Bollworm and Tobacco Budworm Early season light infestation
Whitefly (excluding	8.9 oz. to	8.9 oz. to	use 8.9 oz. per acre. Mid and late season moderate to severe
Sweetpotato	1.1 lbs.	13.3 oz.	infestations use 13.3 oz. to 1.1 lbs. per acre. Apply when eggs
/Silverleaf Whitefly)	1.1 103.	(East of	appear. Do not exceed maximum application rate of 4.4 lbs. of
/Gilverieal vviiiteriy)		Rockies)	ACEPHATE 90 PRILL per acre per crop cycle.
		1.001.00)	Adult/Larvae: Moths are controlled when they come in direct
		8.9 oz. to	contact with spray particles during application. Moth kill is most
		1.1 lbs.	likely to occur when application is made late in the evenings during
		(CA & AZ)	periods of peak activity.
			DEADHATCH: Control of emerging larvae by consumption of
Armyworms	1.1 lbs.	13.3 oz.	treated egg casings.
(excluding Beet		(East of	Pink Bollworm: Apply when insects appear. Do not exceed
Armyworm)		Rockies)	maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
Cabbage Looper			acie pei ciop cycle.
		1.1 lbs.	
D.II.	0.0	(CA & AZ)	
Bollworm	8.9 oz. to	8.9 oz. to	
Tobacco Budworm Adults	1.1 lbs. (East of	13.3 oz. (East of	
Larvae	Rockies)	Rockies)	
Eggs (DEADHATCH)	1.1 lbs.	1.1 lbs.	
	(CA & AZ)	(CA & AZ)	
	<u> </u>	<u> </u>	
Stinkbugs	13.3 oz.	13.3 oz.	
Pink Bollworm	1.1 lbs.	1.1 lbs.	
(AZ & CA)			
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.
			Repeat at minimum 7 day intervals.
Restrictions	<u> </u>	<u> </u>	Tropode de minimum F day intorvaio.
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# COTTON TANK MIXES RESTRICTIONS 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.

Preharvest interval is 14 days.

- 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.
- For use only in states: AL,AR,FL,GA,LA,MS,OK, and TN.

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 <sup>2</sup> / <sub>3</sub> 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.

- 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)	Ground Application:  4.4 oz. to 1.1 lbs.  ACEPHATE 90 PRILL  +  1 to 2 pts.  CHLORPYRIFOS 4E   Aerial Application:  4.4 to 13.3 oz.  ACEPHATE 90 PRILL  +  1 to 2 pts  CHLORPYRIFOS 4E  (East of the Rockies)  4.4 oz. to 1.1 lbs.  ACEPHATE 90 PRILL  +  1 to 2 pts  CHLORPYRIFOS 4E  (East of the Rockies)  4.4 oz. to 1.1 lbs.  ACEPHATE 90 PRILL  +  1 to 2 pts.  CHLORPYRIFOS 4E  (CA & AZ)	Comply with all applicable directions, restrictions, and precautions on the EPA registered label for CHLORPYRIFOS 4E 4 E.  *Cutworms: Use 13.3 oz. per acre of ACEPHATE 90 PRILL.  By Ground: 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.  By Air: 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. Repeat at minimum 7 day intervals.
Restrictions		

- 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.

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	TANK MIX P	OF ACEPHATE 90 PRILL + ARTNER PER ACRE	ADDITIONAL USE INSTRUCTIONS
Aphids Bollworm Cabbage Looper Cotton Leaf Perforator Cutworms Fall Armyworm Fleahoppers Pink Bollworm (AZ & CA) Plantbugs Stinkbugs Sweetpotato/ Silverleaf Whitefly Thrips Tobacco	PRILL AND TANK MIX PARTNER  ACEPHATE 90 PRILL + one of the following  CYPER- METHRIN 2.5 EC	For Cutworm 13.3 oz. per 90 0ne o Refer to the ( EC appro	PRILL + ARTNER PER ACRE Aerial  8.9 to 13.3 oz. per acre (East of the Rockies) 8.9 oz. to 1.1 libs. per acre (CA & AZ) + one of the following us and Stinkbugs use acre of ACEPHATE PRILLS f the following CYPERMETHRIN 2.5 oved label for use structions.	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 but do not exceed maximum application rate of 4.4 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.  Repeat at minimum 7 day intervals.By Ground: 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.  By Air: 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
Budworm Whitefly	ASANA® XL  BAYTHROID® 2 EC  BIFENTHRIN 2 EC  KARATE® 1 EC or Silencer™ (Except CA) SCOUT® X-TRA** (Except CA)	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.		per crop cycle.

- 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**

		GIVARDERITIES
INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE	ADDITIONAL USE INSTRUCTIONS
Cranberry Blossom Worm Gypsy Moth False Armyworm Fireworms Spanworms Spanganothis	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.
		·

#### Restrictions

- Do not make more than one application per growing season.
- Do not apply from start of bloom until all berries set.
- Preharvest interval is 75 days for MA, NJ, WA, and WI; and 90 days for other states.

**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 information below.

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

**Information:** 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** 

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.
Cabbage Looper Armyworms (excluding Beet Armyworm)	1.1 lbs.	Repeat at minimum 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. 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.

#### Restrictions

- 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.
- Do not feed trimmings to livestock or allow animals to graze on treated areas.
- Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
- Do not apply within 21 days of harvest.
- Do not apply after first head begins to form in crops which germinate mid September through November in desert areas of AZ and CA.

**MINT 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. Do not apply sooner than 7 days after last application.  Strawberry Root and Black Vine Weevil:  For control, apply in water in a minimum of 40 gals. spray per acre by ground. Good spray coverage and canopy spray penetration is critical for control. Increase spray volume and pressure with tall or dense mint canopy.  Apply after adult emergence is complete but prior to egg laying. Apply at dusk or during the night on a warm still evening.

#### Restrictions

- Do not use spent mint hay for feed for dairy animals.
- Do not graze treated areas.
- Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL (2 lb a.i.) per acre per crop cycle.
- Maximum 2 applications per crop season.
- Preharvest interval is 14 days.

# **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 minimum 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.	Apply when eggs or insects first appear. Use the high rate when a heavy infestation is present. Repeat spray application at 7 to 10 day intervals.	
Ants	Mound Treatment	Repeat application as	Apply 1 gal. of mix to each mound area

Fire Ants and Harvester Ants* Only	Method: Mix <sup>1</sup> / <sub>3</sub> lb. in 31.9 gals. of water	necessary to maintain control.	by sprinkling the mound until it is wet and treat a four (4) foot diameter circle around the mound. Use as a mound treatment only: only for use on fire ants and harvester ants.
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- Do not graze treated areas.

• Do not harvest citrus for one year (365 days) after treatment.
\*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.		
<ul><li>Restrictions</li><li>Do not graze or f</li></ul>	Restrictions  • 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.

# Restrictions

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

# **PEANUTS**

# **FOLIAR APPLICATION**

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
Thrips	6.7 to 13.3 oz.	gals. spray per acre by air.

Corn Earworm 13.3 oz. to 1.1 Begin applications when eggs or insects first appear and repeat as Fall Armyworm needed to maintain control but do not exceed maximum application lhs Leafhoppers 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. Loopers Velvetbean Caterpillar 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. 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.

#### Restrictions

- 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.
- Preharvest interval is 14 days.

#### **PEPPERS**

#### **BELL PEPPERS**

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
Cabbage Looper Green Peach Aphid Tobacco Hornworm	8.9 oz. to 1.1 lbs.	gals. spray per acre in CA) by air or 25 to 150 gals. spray per acre by ground.
European Corn Borer	13.3 oz. to 1.1 lbs.	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. Repeat at minimum 7 day intervals.

- Do not apply more than 2.2 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
- Preharvest interval is 7 days.

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

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 minimum 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.

#### Restrictions

- Do not apply more than 1.1 lbs. of ACEPHATE 90 PRILL per acre per crop cycle.
- Preharvest interval is 7 days
- Maximum of 2 applications per crop season.

# SOYBEANS (14)

		001==1110(11)
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.
Potato Leafhopper, Stinkbugs	0.56 to 1.1 lbs.	Repeat treatment at minimum 7 day intervals to maintain control, but do not exceed a maximum of 1.66 lbs./A (1.5 lbs. ai/A) per
Armyworms (except Beet)	0.83 to 1.1	season
Bean leaf beetle	lbs.	
Cabbage looper		
Green cloverworm		
Mexican bean beetle		
Soybean aphid		
Threecornered alfalfa hopper		
Velvetbean caterpillar		

# Restrictions

- 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.

# **TOBACCO (NOT REGISTERED FOR USE IN CALIFORNIA) RESTRICTIONS 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.

# **GREENHOUSE TOBACCO FLOATBED APPLICATIONS (except California)**

INSECTS ACEPHATE 90 ADDITIONAL USE INSTRUCTIONS PRILL PER ACRE	
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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. Dispose of Floatbed water in the transplant field through the transplant water or through foliar spray.
Restrictions  Minimum application	on interval is 7 days.	

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.

#### Restrictions

- Observe a minimum application interval of 0 days.
- Preharvest interval is o days

Preharvest interval is 3 days

# **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.  Do not apply more than 13.3 oz. of ACEPHATE 90 PRILL per acre as a transplant-water application as some phytotoxicity may occur.

Restrictions

• 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 FOLIAR APPLICATION (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
Flea Beetle Green Peach Aphid Tobacco Hornworm	8.9 oz.	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
Tobacco Thrips		cycle.
Stinkbugs Tobacco Aphid Vegetable Weevils	8.9 to 13.3 oz.	Repeat at minimum 7 day intervals.
Budworm Cabbage Looper Cutworm Japanese Beetle	13.3 oz.	

# Restrictions

- Do not apply more than 4.4 lbs. of ACEPHATE 90 PRILL (4lb a.i.) per acre per crop cycle.
- Preharvest interval is 3 days.
- Observe a minimum application interval of 7 days.

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

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

- Treat maximum of 13 mounds per acre.
- Do not treat more than once per season.
- Use as a mound treatment only: only for use on fire ants and harvester ants.
- Preharvest interval is 3 days

# **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.

#### Restrictions

- Do not treat mound more than once per season.
- Use as a mound treatment only: only for use on fire ants and harvester ants.
- Do not graze animals
- Do not feed treated grass/hay to dairy animals.
- Do not apply if lactating dairy cattle are present.
- Meat animals should be removed from treated areas at least 1 day before slaughter if they were present at application or grazed treated areas within 21 days of application.
- \*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	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.
Roses Viburnum Yew)	Ants (excluding fire, harvester, carpenter, and pharaoh ants)	13.3 oz.	Apply as needed to control the pest.	

# Restrictions

- Make repeat applications at 3 day intervals for application rates at 8.9 oz. or less and at 7 day intervals for application rates greater than 8.9 oz.
- Do not apply with low pressure hand wand.

# ORNAMENTAL TREES AND SHRUBS

PLANTS	INSECTS	AMOUNT ACEPHATE 90 PRILL PER ACRE PER 100 GALS.	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
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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.
	Douglas Fir Tussock Moth Larvae Gypsy Moth Larvae* Webworms	8.9 oz.	As the insects begin to appear.	* 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.
	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.	Apply the specified amount of ACEPHATE 90 PRILL in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	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)** 

		RNAMENTAL TREES AND S AMOUNT ACEPHATE 90	TIME OF	ADDITIONAL LISE
PLANTS	INSECTS	PRILL PER ACRE PER 100 GALS.	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.  Restriction Do not make more than one application per season
Flowering Crabapples	Aphids Tent Caterpillars Leafrollers	4.4 oz.	As the insects begin to appear. Restriction 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.
Crepe Myrtle	Aphids	1/3 lb. in 6 to 8 Tbsp. of water	As aphids begin to appear.	Phytotoxicity has occurred on the following Crabapple varieties: Hops, Ichonoski. Malusfloribunda, Pink Perfection, Red Wine and Snow Cloud.

\*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 make 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 recommenced treatment zone.

# **RESTRICTIONS 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.
- Do not apply with low pressure hand wand.

# **GOLF COURSE AND SOD FARM TURFGRASS**

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
INSECTS	Golf Course	Sod Farm Turfgrass	TIME OF APPLICATION	INSTRUCTIONS
Fall Armyworm Yellow Striped Armyworm Southern Armyworm Cutworm	0.4 to 1.0 oz. (1.1to 2.7 lbs. per acre)	0.4 to 1.0 oz. (1.1to 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.
Gutwoiiii	(2.7 to 4.3 lbs. per acre)	(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.
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.	water per 1,000 sq. ft. to obtain good coverage.
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.	
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.	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.

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.

	on. oz per 50 gais. or 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 ½ inch). Use the higher listed rate for severe infestations.	

Dichondra

(Plant Site for Golf Course and Sod Farm Turfgrass)

Cutworm Flea Beetle Southern Armyworm Yellow Striped Armyworm	As the insects appear. Repeat application at minimum 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.	
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- Aerial applications are prohibited.
- Do not allow livestock to graze.
- Do not feed treated grass to livestock.
- Maximum Application Rate for Sod/ Turf: 3 lbs. ai/A.
- Maximum Application Rate for Golf Course Turf: 4 lbs ai/A.
- Preharvest interval is 3 days.

# MOUND TREATMENT OF FIRE ANTS AND HARVESTER ANTS IN TURFGRASS

	ISECTS A	AMOUNT ACEPHATE 90 PRILL	TIME OF APPLICATION	ADDITIONAL USE INSTRUCTIONS
Residential, Harve	vester which was well as well	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 creat 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.

# Restrictions

- Use as a mound treatment only: only for use on fire ants and harvest ants. Not registered for use in California for control of Harvester Ants.
- Do not treat mound more than once per season.
- Preharvest interval is 3 days
- Do not allow livestock to graze.
- Do not feed treated grass to livestock.

# **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.

- Do not allow livestock to graze.
  Do not feed treated grass to livestock.
  Do not apply with low pressure hand wand.

# **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	
Roses	Japanese Beetles	12.3 oz.	applications at 2 week intervals may be necessary.	

- If flowers are to be cut, do not apply more than 0.83 lb/ ACEPHATE 90 PRILL (0.75 lbs ai/100 gallons) per 100 gals. For all other ornamentals, application rates must not exceed 1.1 lb./acre ACEPHATE 90 PRILL (1.01 lb a.i.)per 100 galls.
- Do not apply with low pressure hand wand.

COMMERCIAL 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	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.
Orchids Poinsettia	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 mealybugs and whiteflies.	
	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)** 

OKEEN 1000E 1 EOKAE AND 1		OLIAGE I LANT GROT G (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 Chrysanthe- mums	Aphids Thrips	8.9 oz.	As aphids begin to appear. As thrips begin to appear or at the tight flower bud stage. Repeat applications may be necessary.	Apply the specified amount of ACEPHATE 90 PRILL in 100 gals. water with a hydraulic sprayer as a full coverage spray. Application to Chrysanthemums and Roses with open flowers may result in flower damage. 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.

# Restrictions

- Applications cannot be made more than once every 28 days to Carnations and Chrysanthemums.
- 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.
- If flowers are to be cut, do not apply more than 0.83 lb/ ACEPHATE 90 PRILL (0.75 lbs ai/100 gallons) per 100 gals. For all other ornamentals, application rates must not exceed 1.1 lb./acre ACEPHATE 90 PRILL (1.01 lb a.i.)per 100 galls.
- Retreatment interval is 5 days.
- Do not apply with low pressure hand wand.

# STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

# **PESTICIDE STORAGE:**

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Do not store above 100°F for extended periods of time. Storage below 20°F can result in formation of crystals. If product crystallizes, store at 50°F to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

#### PESTICIDE DISPOSAL:

Open dumping is prohibited. Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the hazardous waste representative at the nearest EPA Regional Office for guidance.

# **CONTAINER HANDLING:**

# **NONREFILLABLE CONTAINERS:**

# Rigid, Nonrefillable containers small enough to shake (i.e. with capacities equal to less than five gallons).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

# Rigid, Nonrefillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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. Offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

# **REFILLABLE CONTAINERS:**

Refill this container with pesticide 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.

# **REFILLING OR RETURNING CONTAINERS:**

If refilling or returning container is planned, end users are not authorized to remove tamper evident cables, one way values or clean container.

#### RECYCLE OR DISPOSAL OF CONTAINERS:

End users are authorized to remove tamper evident cable as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. Instructions for container rinsing and either recycling or disposal are as follows:

# Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing 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 pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

# Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums and Kegs).

Triple rinsing 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 triple rinse 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. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

# 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 lambdacyhalothrin 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)(notif to EPA 7-29-13)