

66330-356

02/12/2009

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Bill Washburn
Regulatory Manager Arysta LifeScience North America, LLC
15401 Weston Parkway, Suite 150
Cary, NC 27513

FEB 12 2009

Subject: Label Notification for Pesticide Registration Notices 2007-4 and 98-10
Acephate 90 SP
EPA Reg. No. 66330-356
Application Dated January 26, 2009

Dear Mr. Washburn:

The Agency is in receipt of your subject Application for Pesticide Notification under Pesticide Registration Notices (PRN) 2007-4 and 98-10 for the subject products.

The Registration Division (RD) has conducted a review of this request for applicability under PRN-2007-4 and PRN 98-10 and finds that the label changes requested fall within the scope of these PR Notices. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

Sincerely,

A handwritten signature in cursive script, appearing to read "Marilyn A. Mautz".

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

Note to File EPA Reg. No. 66330-356

Subject: Notification of 1/26/09 for PR Notice 2007-4

The subject product is contained in a water soluble container; i.e. the unopened package containing the pesticide is placed into the spray tank. Thus, only the outer container is addressed in the container disposal statements and no cleaning of residues is necessary for the outer container.

Marilyn Mautz *mm*

Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 05-31-98



United States
Environmental Protection Agency
Washington, DC 20460

- Registration
- Amendment
- Other:

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 66330-356	2. EPA Product Manager Venus Eagle	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) ACEPHATE 90SP	PM# 01	
5. Name and Address of Applicant (Include ZIP Code) Arysta LifeScience North America, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

Check if this is a new address

Section - II

- Amendment - Explain below.
- Final printed labels in response to Agency letter dated _____
- Resubmission in response to Agency letter dated _____
- "Me Too" Application
- Notification - Explain below.
- Other - Explain below

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Notification of label change per PR Notice 2007-4. This notification is consistent with guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if the amendment is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Notification of label change per PR Notice 98-10. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Packaging wgt. No. per container	Water Soluble Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Package wgt. No. per container 1 lb and 2.5 lb. 10 and 2	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)
*Certification must be submitted			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 10 x 1 lb. and 2 x 2.5lb.	5. Location of Label/Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name Bill Washburn	Title Regulatory Manager	Telephone No. (Include Area Code) 901-432-5118
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Manager	
4. Typed Name Bill Washburn	5. Date January 26, 2009	



January 26, 2009

Ms. Venus Eagle
Document Processing Desk (NOTIF)
Office of Pesticide Programs – 7504P
U.S. Environmental Protection Agency
One Potomac Yard, Room S-4900
2777 South Crystal Drive
Arlington, VA 22202

**Subject: ACEPHATE 90SP
EPA Reg. No. 66330-356**

***Notification of Label Change per PR Notice 2007-4
and PR Notice 98-10***

Dear Ms. Eagle:

Please find the following enclosed:

- Application for Pesticide Registration (Other) dated 01/26/09.
- One highlighted copy of subject label, showing all changes.
- One clean copy of the subject label.

Notification of label change per PR Notice 2007-4. This notification is consistent with guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 USC Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amendment is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Also in this submission, we are using PR Notice 98-10 to update the name of the company, emergency telephone numbers and warranty. Arysta LifeScience North America Corporation was changed to Arysta LifeScience North America, LLC.

Should you have any questions or comments, please do not hesitate to contact me at 901-432-5118 or by e-mail at bill.washburn@arystalifescience.com

Sincerely,

Bill Washburn
Regulatory Manager

ACEPHATE 90SP

INSECTICIDE in Water Soluble Packets

NOTIFICATION

FEB 12 2009

Active Ingredient	By Wt.
Acephate (O,S-Dimethyl acetylphosphoramidothioate)	90%
Other Ingredients	10%
Total	100%

THIS PRODUCT MAY NOT BE REFORMULATED, REPACKAGED OR RELABELED.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Acephate is an organophosphate, cholinesterase inhibitor.	
IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> • 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.
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.	
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
EMERGENCY NUMBERS:	
FOR 24- HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-866-303-6952	
FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9390	

EPA Reg. No. 66330-356

EPA Est. No. 51036-GA-1

NET CONTENTS:

Manufactured For:
 Arysta LifeScience North America, LLC
 15401 Weston Parkway, Suite 150
 Cary, NC 27513

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

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber and viton. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators and other handlers using engineering controls must wear:

- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves for all mixers and loaders and for applicators using hand-held application equipment

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.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

Water-soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(4)]. Mixers and loaders using water-soluble packets must:

- wear the personal protective equipment required above for mixers/loaders, and
- be provided and must have immediately available and must use in an emergency, such as a broken package, spill, or equipment breakdown the following PPE:
 - Coveralls
 - Chemical-resistant footwear
 - 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.

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:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. 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.

For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Exposed treated seed may be hazardous to birds and other wildlife. Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

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

STORAGE AND DISPOSAL

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

STORAGE: Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in cool, dry place. Protect from excessive heat. Do not contaminate food or foodstuffs. Do not store or transport near feed or food. For help with any spill, leak, fire or exposure involving this material, call Chemtrec 1-800-424-9300.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or dispose of outer bag in a sanitary landfill or by incineration if allowed by state and local authorities.

CHEMIGATION PROHIBITION

Do not apply this product through any type of irrigation system, except on Cranberries.

TABLE OF EQUIVALENTS

Rates of Acephate 90SP Per Acre	Acres Treated by a 1 lb. Water-Soluble Bag	Acres Treated by a 2.5 lb Water-Soluble Bag
2.5 oz.	6.4	16
3.2 oz.	5	12.5
3.25 oz.	4.9	12.3
0.25 lb.	4	10
0.28 lb.	3.5	8.9
0.5 lb.	2	5
0.56 lb.	1.8	4.5
0.8 lb.	1.2	3.1
1.0 lb.	1	2.5
1.1 lb.	0.9	2.3

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

GENERAL USE RESTRICTIONS

Not for indoor residential use. For greenhouse use, use is limited to commercial greenhouses for use on tobacco) floatbed application, ornamental, floral, and foliage plants.

For use on turf, use limited to sod farms and golf courses. Aerial application to turf is prohibited.

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.

Do not apply with low pressure handwand except when used on ornamental trees, shrubs and floral plants grown for non-agricultural or non-commercial use.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

1. Coveralls
2. Chemical-resistant gloves made of any waterproof material and
3. 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, or greenhouses. Do not enter or allow others to enter until sprays have dried.

DIRECTIONS

This package contains water soluble packets of Acephate 90SP. Do not handle the packets with wet gloves or allow the packets to become wet prior to addition to the spray tank. If only one packet is used, close and reseal outer container to protect remaining packets.

To prepare spray solution, drop the unopened packet of Acephate 90SP into a spray tank containing at least one-half the desired total quantity of water. Continue to add water with the agitator running until the desired spray volume is reached. Depending on the water temperature and degree of agitation the packet should completely dissolve in approximately 5 minutes.

SPRAY DRIFT MANAGEMENT

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

- All aerial, ground and air-assisted/airblast application equipment must be properly maintained and calibrated using water as carrier. Do not apply this product as an ultra low volume (ULV) spray other than as specified on this label, or in any carrier other than water.
- Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Do not apply at wind speeds greater than 10 mph at the application site.
- Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage.
- For aerial applications, do not apply at heights greater than 10 feet (consistent with flight safety).
- For airblast applications, direct spray above foliage and turn off outward pointing nozzles at row ends and outer rows.
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.
- For ground applications, do not apply at heights greater than 4 feet.

Aerial applications to turf are prohibited.

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COTTON

PHI (pre-harvest interval) denotes number of days to harvest.

GENERAL USE PRECAUTIONS:

- Do not use treated seed for food or feed purposes for oil.
- Do not feed treated forage or gin trash to livestock.
- Do not allow animals to graze on treated areas.
- Do not apply more than 4.0 lbs a.i. per acre per crop cycle. This includes all methods of application.
- The maximum single aerial application rate for use in California and Arizona is 1.0 lb a.i. per acre. For all remaining areas, the maximum single application rate is 0.75 lb a.i. per acre.

COTTON: IN FURROW

By Ground AT-PLANTING APPLICATION: 3 to 5 gals/A of spray

PESTS CONTROLLED	RATES OF ACEPHATE 90SP PER ACRE	REMARKS	Minimum Spray Interval (Days)	PHI
Aphids* Black (Greasy) Cutworm (Except CA) Thrips (Including Western Flower Thrips) *Excluding Cotton Aphids in AZ & CA	0.56 to 1.1 lbs NOTE: For the Black Lands of Texas use 1.1 lbs/A ACEPHATE 90SP	Use flat-fan nozzles for in-furrow application. Align nozzles to ensure good spray deposition into the seed furrow. Cone type nozzles are not recommended since unacceptable spray deposition may occur. Securely fasten spray-system tubing to furrow opener and check frequently to ensure proper positioning and operation. ACEPHATE 90SP can be mixed with fungicides that are sprayed in-furrow for disease control.	N/A	N/A

COTTON: FOLIAR – GROUND APPLICATION

By Ground: Minimum of 10 gals water/A

PESTS CONTROLLED	RATES OF ACEPHATE 90SP PER ACRE	REMARKS	Minimum Spray Interval (Days)	PHI
Thrips (Including Western Flower Thrips)	3.2 oz	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	3	21
Plantbugs (Lygus)	0.25 to 1.0 lb 0.5 to 1.1 lbs (AZ & CA)	Apply when eggs or insects first appear. Use higher rate for Lygus adults that have migrated into cotton. Repeat application as necessary to maintain control.*	7	21
Fleahopper	0.25 lb	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	3	21

PESTS CONTROLLED	RATES OF ACEPHATE 90SP PER ACRE	REMARKS	Minimum Spray Interval (Days)	PHI
Cotton Aphids (Excluding AZ & CA)	0.5 to 1.1 lbs	This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations. Repeat application as necessary to maintain control.*	7	21
Whitefly (excluding Sweet potato Whitefly/Silverleaf Whitefly)	0.5 to 1.1 lb	Repeat application as necessary to maintain control.*	7	21
Armyworms (excluding Beet Armyworm) Cabbage Looper	1.1 lbs	Apply when eggs appear and repeat at 7 day spray intervals.*	7	21
Bollworm Tobacco Budworm Adults Larvae	0.5 to 1.1 lbs (East of Rockies) 1.1 lbs (AZ & CA)	Early Season: Use 0.5 lb/A for light infestations. Mid and Late Season: Use 0.8 to 1.1 lbs/A for moderate to severe infestations.	7	21
Eggs/DEADHATCH®	0.25 to 0.5 lb	Apply when eggs appear and repeat at 7 day spray intervals.* Moths of budworm larvae are controlled by direct contact with spray. Moth kill is most likely to occur when late evening applications are made. DEADHATCH: control of emerging larvae by consumption of treated egg casings.	7	21
Stink Bugs	0.8 lb	Apply when eggs appear and repeat at 7 day spray intervals.*	7	21
Pink Bollworm (AZ & CA)	1.1 lbs	Apply when insects appear and repeat at 7 day spray intervals.*	7	21
Cutworms	0.8 lb	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 as necessary to maintain control.*	7	21
RESTRICTIONS				
* Not to exceed maximum of 4.0 lbs a.i. per acre per crop cycle.				

COTTON: FOLIAR – AERIAL APPLICATION

By Air: Minimum of 1 gallon water/A
(minimum of 5 gals water/A in AZ & CA)

PESTS CONTROLLED	RATES OF ACEPHATE 90SP PER ACRE	REMARKS	Minimum Spray Interval (Days)	PHI
Thrips (Including Western Flower Thrips)	3.2 oz	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	3	21
Plantbugs (Lygus)	0.25 to 0.83 lb 0.5 to 1.1 lbs (AZ & CA)	Apply when eggs or insects first appear. Use higher rate for Lygus adults that have migrated into cotton. Repeat application as necessary to maintain control.*	7	21
Fleahopper	0.25 lb	Apply when eggs or insects first appear. Repeat application as necessary to maintain control.*	3	21
Cotton Aphids (Excluding AZ & CA)	0.5 to 0.83 lb	This insect may develop resistance to various classes of insecticides. Consult your local Agricultural Extension Service for current control recommendations. Repeat application as necessary to maintain control.*	7	21
Whitefly (excluding Sweet Potato Whitefly/Silverleaf Whitefly)	0.5 to 0.83 lb 0.5 to 1.1 lbs (AZ & CA)	Repeat application as necessary to maintain control.*	7	21
Armyworms (excluding Beet Armyworm) Cabbage Looper	0.83 lb 0.5 to 1.1 lbs (AZ & CA)	Apply when eggs appear and repeat at 7 day spray intervals.*	7	21
Bollworm Tobacco Budworm Adults Larvae	0.5 to 0.83 lb (East of Rockies) 1.1 lbs (AZ & CA)	Early Season: Use 0.5 lb/A for light infestations. Mid and Late Season: Use 0.8 to 1.1 lbs/A for moderate to severe infestations.	7	21
Eggs/DEADHATCH®	0.25 to 0.5 lb	Apply when eggs appear and repeat at 7 day spray intervals.* Moths of budworm larvae are controlled by direct contact with spray. Moth kill is most likely to occur when late evening applications are made. DEADHATCH: control of emerging larvae by consumption of treated egg casings.	7	21

PESTS CONTROLLED	RATES OF ACEPHATE 90SP PER ACRE	REMARKS	Minimum Spray Interval (Days)	PHI
Stink Bugs	0.8 lb	Apply when eggs appear and repeat at 7 day spray intervals.*	7	21
Pink Bollworm (AZ & CA)	1.1 lbs	Apply when insects appear and repeat at 7 day spray intervals.*	7	21
Cutworms	0.8 lb 0.8 to 1.1 lbs (AZ & CA)	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 as necessary to maintain control.*	7	21
RESTRICTIONS * Not to exceed maximum of 4.0 lbs a.i. per acre per crop cycle.				

COTTON TANK MIXES

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.

COTTON TANK MIX: FOLIAR

By Ground: Minimum of 10 gals water/A of spray

By Air: 3 to 10 gals/A of spray (minimum of 5 gals water/A in CA)

Pests Controlled	ACEPHATE 90SP SOLUBLE POWDER and Tank Mix Partner	AMOUNT OF ACEPHATE 90SP SOLUBLE POWDER + Tank Mix Partner Per Acre	REMARKS	Minimum Spray Interval (Days)	PHI
Sweet potato Whitefly (Silverleaf Whitefly)	ACEPHATE 90SP + DANITOL 2.4 EC Spray	0.5 lb + 10-2/3 to 16 fl oz	Follow all applicable directions, restrictions, and precautions on the EPA registered label for DANITOL 2.4 EC Spray	3	21

Pests Controlled	ACEPHATE 90SP SOLUBLE POWDER and Tank Mix Partner	AMOUNT OF ACEPHATE 90SP SOLUBLE POWDER + Tank Mix Partner Per Acre	REMARKS	Minimum Spray Interval (Days)	PHI
Armyworms (excluding Beet Armyworm) Bollworm Cabbage Looper Cotton Aphid Cutworms Fleahopper Grasshoppers Pink Bollworm Plantbugs (Lygus, Mirids) Salt Marsh Caterpillar Thrips (Including Western Flower Thrips) Tobacco Budworm Whitefly (Excluding Sweet potato/ Silverleaf Whitefly)	ACEPHATE 90SP + LORSBAN 4E or CHLORPYRIFOS 4E	0.28 to 1.1 lbs (ground) or 0.28 to 0.83 lb (aerial) 1 to 2 pts	Follow all applicable directions, restrictions and precautions on the EPA registered label for LORSBAN 4E. Cutworms: Use of 0.8 lb/A ACEPHATE 90SP By Ground: Ground application is recommended. 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 when insects first appear or when damage is first noted.	7	21

RESISTANCE-MANAGEMENT

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

COTTON TANK MIXES WITH PYRETHROIDS

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

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

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COTTON TANK MIXES: FOLIAR

By Ground: Minimum of 10 gals water/A of spray

By Air: 3 to 5 gals/A of spray (minimum of 5 gals water/A in CA)

Pests Controlled	ACEPHATE 90SP SOLUBLE POWDER and Tank Mix Partner	Amount of ACEPHATE 90SP SOLUBLE POWDER + Tank Mix Partner Per Acre	REMARKS	Minimum Spray Interval (Days)	PHI
Aphids Bollworm Cabbage Looper Cotton Leaf Perforator Cutworms Fall Armyworms Fleahoppers Pink Bollworm (AZ & CA) Plantbugs Stinkbugs Sweet potato/Silverleaf Whitefly Thrips (Including Western Flower Whitefly Thrips) Tobacco Budworm	ACEPHATE 90SP	0.5 to 1.1 lbs (ground) or 0.5 - 0.83 lb (aerial)	Apply when eggs or insects first appear. Stink Bugs: Use 0.8 lb/A of Acephate 90SP. *Cutworms: Use 0.8 lb/A of ACEPHATE 90SP.	7	21
	+	+	By Ground: Ground application is recommended. Control is most effective when ground application is made in the evenings and sprays are directed toward the base and lower portion of plant.		
	one of the following	one of the following	By Air: 3 to 10 gals/A spray (minimum 5 gals/A in CA) Aerial applications are less effective, but may be used. Apply when eggs or insects first appear or damage is first noted.		
	AMBUSH® 2EC	Refer to the AMBUSH 2EC approved label for use instructions.	Repeat as necessary to maintain control.*		
	AMMO® 2.5EC*	Refer to the AMMO 2.5EC approved label for use instructions.			
	ASANA® XL*	Refer to the ASANA XL approved label for use instructions.			
	BAYTHROID® 2EC	Refer to the BAYTHROID 2EC approved label for use instructions.			
	CAPTURE® 2EC	Refer to CAPTURE 2EC approved label for use instructions.			
	CYMBUSH 3EC	Refer to CYMBUSH 3EC approved label for use instructions			
	KARATE 1E (Except CA)	Refer to the KARATE 1E approved label for use instructions.			
PYDRIN 2.4EC	Refer to the PYDRIN 2.4EC approved label for use instructions.				
POUNCE 3.2EC	Refer to the POUNCE 3.2EC approved label for use instructions.				
SCOUT X-TRA® (Except CA)	Refer to the SCOUT X-TRA approved label for use instructions.		28		

RESTRICTIONS

*Do not apply more than 4 lbs. ai/A per season, this includes all methods of application. Including the use of PAYLOAD 15 Granular as an in-furrow at planting treatment, all foliar spray, liquid in-furrow application and seed treatment uses.

RESISTANCE MANAGEMENT

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

FIELD CROPS

PHI (pre-harvest interval) denotes number of days to harvest.

CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS	Minimum Spray Interval (Days)	PHI
Peppermint, Spearmint	Alfalfa looper, Cutworm, Aphids	1.11 lbs	Initial application should be made when eggs or insects first appear using a minimum of 20 (ground) or 5 (aerial) gal of water/A. The grazing of animals on treated areas and the feeding of spent mint hay to animals are prohibited. Do not apply more than 2.0 lbs. a.i. (2.22 lbs. product) per acre per season. Maximum of 2 applications per crop season.	7	14
Peanuts	Grasshoppers	0.28 - 0.55 lb	Apply in water at 10 to 50 gals. spray per acre by ground or in 5 to 10 gals. spray per acre by air. Begin applications when insects first appear and repeat as needed to maintain control.* Do not feed treated forage or hay to livestock or allow animals to graze treated areas. *Do not apply more than 4.0 lbs. a.i. (4.44 lbs. product) per acre per crop cycle, this includes all methods of application.	7 (for postemergence, foliar, ground/aerial)	14 (of digging)
	Thrips	0.55 - 0.83 lb			
	Corn earworms, Fall armyworms, Leafhopper, Loopers, Velvetbean Caterpillar	0.83 - 1.11 lbs			
Soybeans	Grasshopper, Thrips	0.28 - 0.56 lb	By Air: 5 to 10 gallons / Acre of spray By Ground: 10 to 50 gallons / Acre of spray	0.5 lbs.a.i./acre and less : 3 days greater than 0.5	14
	Potato Leafhopper, Stinkbugs	0.56 - 1.1 lbs.			

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CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS	Minimum Spray Interval (Days)	PHI
	Armyworms (except Beet), Bean Leaf Beetle, Cabbage . Looper, Green Cloverworm, Mexican Bean Beetle, Soybean Aphid, Three-cornered Alfalfa Hopper, Velvetbean Caterpillar	0.83 – 1.1 lbs.	Do not graze or cut vines for hay or forage. Do not apply more than 1.5 lbs. a.i./Acre of Acephate 90SP per season. Always read and follow all label directions, restrictions, and precautions when using any pesticide alone or in tank mix combinations. The most restrictive labeling applies when using a tank mix.	lbs.a.i./acre: 7 days	

TOBACCO
TOBACCO TRANSPLANT WATER APPLICATION
(Use Prohibited in CA)

CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS
Tobacco	Flea Beetle, Green Peach Aphid, Tobacco Aphid, Cutworms, Tobacco Thrips	0.83 lb	Provides control of early season flea beetles, green peach aphids, tobacco aphids, and cutworms for approximately 3 to 4 weeks after transplanting. For later season control of these insects, apply a foliar spray of ACEPHATE 90SP. Apply in a minimum of 100 gals. of water per acre. Do not apply more than 0.8 lb ACEPHATE 90SP per acre as a transplant water application as some phytotoxicity may occur. Do not apply more than 0.75 lb a.i. per acre per year.

RESTRICTIONS

Make transplant-water applications using mechanical transplant equipment only. Using such equipment, the insecticide/water mixture is mechanically applied directly into the soil along with the transplanted plants.
Do not apply more than 4 lbs a.i. per acre per season. This includes all methods of application.

TOBACCO FOLIAR APPLICATION

(Use Prohibited in CA)

PHI (pre-harvest interval) denotes number of days to harvest.

CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS	PHI
Tobacco (Flue-Cured, Air Cured, Dark Fire Cured)	Grasshoppers	0.28 - 0.83 lb	Apply in 10 to 50 gals. water per acre with ground equipment or a minimum of 3 gals. per acre by air. Apply spray at a minimum of 7 days if necessary to maintain control. Do not apply more than 4 lbs a.i. per acre per season. This includes all methods of application.	3
	Green Peach Aphid, Flea Beetle, Hornworm, Tobacco Thrips	0.55 - 0.83 lb		
	Tobacco Aphid, Vegetable Weevils, Stinkbugs	0.55 - 0.83 lb		
	Budworm, Cabbage Looper, Cutworm	0.83 lb		

TOBACCO PLANT BED APPLICATION

(Use Prohibited in CA)

CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS
Tobacco Bed Treatment	Flea Beetle, Green Peach Aphid, Tobacco Aphid, Cutworm	0.83 lb	Apply to foliage at the rate of 1 gal. of diluted product per every 1,000 sq. ft. of bed. Prepare diluted product by adding 1 lb Acephate 90SP to 43.5 gallons of water. Apply evenly to ensure thorough coverage. Apply spray at a minimum of 7 days if necessary to maintain control. Do not apply more than 4 lbs a.i. per acre per season. This includes all methods of application.

TOBACCO FLOATBED/GREENHOUSE APPLICATION

(Use Prohibited in CA)

CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS
Tobacco	Cutworm, Flea beetle, Green Peach Aphid, Tobacco Aphid	0.83 lb	Apply to foliage at the rate of 3 gals. Of diluted product per every 1,000 sq. ft. of bed. Prepare diluted product by adding 1 lb. Acephate 90SP in 130. 7 gallons of water. Apply evenly to ensure thorough coverage. NOTE: Floatbed water should be disposed of in the transplanted field through the transplant water or through foliar spray. Apply spray at a minimum of 7 days if necessary to maintain control.

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			Do not apply more than 4 lbs a.i. per acre per season. This includes all methods of application.
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CRANBERRIES

PHI (pre-harvest interval) denotes number of days to harvest.

CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS	Minimum Spray Interval (days)	PHI
Cranberries	Cranberry Blossom Worm, Gypsy Moth, False Armyworm, Fireworms, Spanworms, Sparganothis	1.11 lbs	<p>Application should be made using sufficient water to achieve thorough coverage (ground) or in a minimum of 2 gal of water/A (aerial). Application should not be made from start of bloom until all berries have set. When applied via irrigation system, only sprinkler type irrigation equipment can be used.</p> <p>Apply in water by air, ground or with sprinklers.</p> <p>NOTE: Limit to one application per growing season.</p> <p>Do not apply more than 1.0 lb a.i. (1.11 lbs. product) per acre per crop cycle.</p>	N/A	90

SPRINKLER IRRIGATION APPLICATION TO CRANBERRIES

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

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

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 shall 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, 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.

System 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 ensure the lines are flushed and free of remaining pesticide, a dye indicator may be injected into the line to mark the end of the application period. See NOTE.

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

NOTE: Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Inject the product with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing.

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

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VEGETABLE CROPS

PHI (pre-harvest interval) denotes number of days to harvest.

CROPS	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS	Minimum Spray Interval (Days)	PHI
Beans & Lima Beans (Dry & Succulent Forms)	Fleahoppers, Grasshoppers	0.28 - 0.55 lb	Initial application should be made when eggs or insects first appear using a minimum of 20 (ground) or 2 (aerial) gal of water/A. The feeding of treated vines to livestock is prohibited. Severe insect infestations, use the higher rates. Do not apply more than 2.0 lb a.i. (1.22 lbs. product) per acre per crop cycle.	7	14 (snap-beans or dry beans) lima beans succulent forms
	Aphids, Beanleaf Beetle, Bean Leafroller, Cabbage Looper, Cutworms, Green Cloverworm, Leafhoppers, Mexican Bean Beetle, Plantbugs (Lygus), Soybean Looper, Thrips, Whitefly	0.55 to 1.11 lbs		7	
	Armyworms, Corn Earworm, European Cornborer	0.83 - 1.11 lbs			

CROPS	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS	Minimum Spray Interval (Days)	PHI
Brussels Sprouts, Cauliflower	Green Peach Aphid	0.55 – 1.11 lbs	Initial application should be made when eggs or insects first appear using a minimum of 25 (ground) or 5 (aerial) gal of water/A. The feeding of treated trimmings or the grazing of livestock in treated areas is prohibited. Brussel Sprouts Only: Do not apply more than 2.0 lb a.i. (2.22lbs. product) per acre per crop cycle. Spray per acre by air. Use the high rate when heavy infestations of aphids are present.	7	14
	Cabbage Looper, Diamondback Moth, Imported Cabbageworm	1.11 lbs			
Celery	Green Peach Aphid	0.55 to 1.11 lbs	Initial application should be made when eggs or insects first appear using a minimum of 50 (ground) or 5 (aerial) gal of water/A. All celery must be trimmed (tops removed) before shipment. The use of treated tops for food/feed is prohibited. Do not apply more than 2.0 lb a.i. (2.22lbs. product) per acre per crop cycle.	7	21
	Beet & Fall Armyworm, Cabbage Looper	1.11 lbs		7	21
Head Lettuce (Crisphead Type Only)	Aster Leafhopper, Green Peach Aphid	0.55 – 1.11 lbs	Application should be made using a minimum of 10 (ground) or 5 (aerial) gal of water/A. Applications may be made in spring, summer, and early fall in	7	21

	Cabbage Looper, Armyworm (excluding beet armyworm)	1.11 lbs	all areas; winter applications may be made in AZ, CA, FL, and TX; and late fall applications may be made in AZ. In the desert areas of AZ and CA, application should not be made after first head begins to form in crops which germinate from mid-September through November. The feeding of trimmings to livestock, and the grazing of animals on treated areas are prohibited. Maximum of 5 applications per crop season. Do not apply more than 2.0 lb a.i. (2.22 lbs. product) per acre per crop cycle.		
Peppers (non-Bell type)	Aphids	0.55 lb	Use limited to Midwestern and Eastern states and to PR. Application should be made by using a minimum of 40 gal of water/A. Maximum of 2 applications per crop season. Do not apply more than 1.0 lbs a.i. (1.11 lbs. product) per acre per crop cycle.	3	7
Peppers (Bell type)	Grasshoppers	0.28 – 1.11 lbs	Initial application should be made when eggs or insects first appear using a minimum of 25 (ground), 3 (aerial), or 5 (aerial in CA) gal of water/A. Do not apply more than 2.0 lbs a.i. (2.22 lbs. product) per acre per crop cycle.	7	7
	Cabbage Looper, Green Peach Aphid, Tobacco Hornworm	0.55 – 1.11 lbs			
	European Cornborer	0.83 – 1.11 lbs			

NON-BEARING CITRUS

PHI (pre-harvest interval) denotes number of days to harvest.

CROPS	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS	Minimum Spray Interval (Days)	PHI
CITRUS (Non-bearing)	Aphids Grasshoppers Katydid Mealybugs Orangedogs Plantbugs Thrips Whiteflies (except Sweet potato/ Silverleaf)	1.11 lbs	Initial spray application should be made to individual juvenile or non-bearing trees when eggs or insects first appear using a minimum of 100 gal of water/A by ground equipment. The grazing of livestock on treated areas and the harvesting of citrus fruits for one year after treatment are prohibited.	7	N/A

SPECIALTY USES

CROP	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS
Non-crop Areas (field borders, fencerows, roadsides, ditchbanks and borrow pits)	Grasshoppers	0.28 lb	Application should be made using a minimum of 10 (ground), 1 (aerial), or 5 (aerial in CA) gallons of water per acre. The grazing or feeding of vegetation cut from treated areas is prohibited.

NON-CROP AREAS (Wasteland)

APPLICATION METHOD	INSECTS	AMOUNT ACEPHATE 90SP PER ACRE	FURTHER USE INSTRUCTIONS
Foliar Ground/ aerial	Black Grass Bugs, Grasshoppers, Mormon Crickets	1.6 to 2.2 oz	Application should be made using a minimum of 10 (ground), 0.5 (aerial), or 5 (aerial in CA) gal of water/A. The grazing or feeding of vegetation cut from treated areas is prohibited.

CONTAINER GROWN NURSERY STOCK

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 100 GALS	TIME OF APPLICATION	RECOMMENDED APPLICATION
Container Grown Nursery Stock (Arborvitae, Azalea, Camelia, Rhododendron, Roses, Viburnum, Yew)	Black Vine Weevil, Strawberry Root Weevil	0.63 lb	Through drench application of liquid formulation should be made by mid-September for greenhouse stock and by mid-October for outdoor stock. Consult your local county extension agent for information on the identification and control of root weevils on ornamentals.	Apply the specified amount of ACEPHATE 90SP per 100 gals. of solution so as to thoroughly drench the root system.
	Ants (except fire, harvester, carpenter, and pharaoh)	0.63 lb	Apply as needed to control the pest.	

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ORNAMENTAL TREES & SHRUBS

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 100 GALS	TIME OF APPLICATION	Minimum Spray Interval (Days)	RECOMMENDED APPLICATION
Trees and Shrubs (except Flowering Crabapple and Douglas Fir, see below)	Aphids, Bagworms, Birch Leafminer, Tent Caterpillar*, Lace Bugs, Leafrollers	0.28 lb - 1.11 lbs (4.4 - 17.7 oz)	As the insects or damage first appear.	Rates ≤ 0.5 lb. a.i./A = 3 days Rates > 0.5 lb. a.i./A = 7 days	Apply the specified amount of ACEPHATE 90SP in 100 gals water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy Moth larvae. Do not apply by low pressure handwand.
	Douglas Fir Tussock, Moth Larvae, Gypsy Moth Larvae*, Webworms	0.55 - 1.11 lbs (8.7 - 17.7 oz)	As insects begin to appear.		*Mist blower application. Adjust rates to 1.11 lbs per 100 gals water for Gypsy Moth control and 0.83 lb per 100 gals water for Tent Caterpillar control. Application to Huckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar and Viburnum suspensum may result in flower damage. Nursery crops. Before treating large plantings, spray only a few plants and observe two weeks for phytotoxicity.
	Scales (Crawlers)	0.55 - 1.11 lbs (8.7 - 17.7 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	0.55 - 1.11 lbs (8.7 - 17.7 oz)	Time of application is important. Consult your Farm Advisor or County Extension Agent.		Apply the specified amount of ACEPHATE 90SP in 100 gals water with a hydraulic sprayer as a full coverage spray
	Grasshoppers	0.55 - 1.11 lbs (8.7 - 17.7 oz)	As the grasshoppers begin to appear		
	California Oakworm, Cankerworms (Spring & Fall)	0.28 - 1.11 lbs	As the insects begin to appear. Use the higher amount when the larger larvae are present.		Apply the specified amount of ACEPHATE 90SP in 100 gals. water with a hydraulic sprayer.

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PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 100 GALS	TIME OF APPLICATION	Minimum Spray Interval (Days)	RECOMMENDED APPLICATION
	Nantucket Pine Tip Moth Larvae	1.11 lbs (17.7 oz)	Time of application is important. Consult your Farm Advisor or County Extension Agent. Repeat applications will be required for subsequent generations.	Rates ≤ 0.5 lb. a.i./A = 3 days Rates > 0.5 lb. a.i./A = 7 days	
	Root Weevil Adults	1.11 lbs (17.7 oz)	Apply when first feeding damage occurs. Repeat applications at four week intervals until the first heavy frost, may be necessary for complete foliage protection.		Apply the specified amount of ACEPHATE 90SP in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Box Elder Bugs, Sawflies, Budworms, Leafhoppers	1.11 lbs (17.7 oz)	As the insects begin to appear.		Apply the specified amount of ACEPHATE 90SP in 100 gals. water with a hydraulic sprayer as a full coverage spray.
	Japanese Beetle	1.11 lbs (17.7 oz)	As the Japanese Beetles begin to appear. Repeat applications, at 2 week intervals, may be necessary.		
	Elm Leaf Beetle (larvae)	1.11 lb (17.7 oz)	As the larvae begin to appear. ACEPHATE will not prevent Elm Leaf Beetle eggs from hatching.		

PLANTS	INSECTS	AMOUNT ACEPHATE	TIME OF APPLICATION	Minimum Spray	RECOMMENDED APPLICATION
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		90SP PER 100 GALS		Interval (Days)	
Douglas Fir, Christmas Trees	Douglas Fir Needle Midge	0.55 lb (8.7 oz)	Application should be made no more than 2 weeks prior to bud burst. For additional pest management information, consult your county extension service.	N/A	Application should be made no more than 2 weeks prior to bud burst using a minimum of 100 (ground) or 2 (aerial) gal of water/A. Do not apply by low pressure handwand. Maximum of 1 application per crop season. Do not apply more than 0.55 lb product per acre per crop cycle.
Flowering Crabapples	Aphids, Tent Caterpillars, Leafrollers	0.28 lb (4.4 oz)	As the insects begin to appear.	28	Apply the specified amount of ACEPHATE 90SP in 100 gals. water with a hydraulic sprayer. Do not apply more often than 3 times in a growing season. Note: Phytotoxicity has occurred on the following Crabapple varieties: Hopa, Ichonoski, Malusflorihunda, Pink Perfection, Red Wine and Snow Cloud. Do not apply by a low pressure handwand.
Crepe Myrtle	Aphids	1 lb. (16 oz.) per 16 gallons of water	As aphids begin to appear.	N/A	Make a paint-on slurry to the trunk in a band 6-12 inches above the ground by mixing the specified amount of ACEPHATE 90SP. 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.

**COMMERCIAL TURFGRASS
(Golf Course Turf Only)**

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

Use limited to golf courses.

Aerial applications to turf are prohibited.

NOT FOR USE ON RESIDENTIAL LAWNS

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 1,000 SQ FT	TIME OF APPLICATION	RECOMMENDED APPLICATION
Turfgrass	Fall Armyworm, Yellow Striped Armyworm, Southern Armyworm	0.4 to 1.0 oz (1.11 to 2.71 lbs per acre)	As the insects appear. A repeat application at 2 week intervals may be necessary.	Apply the specified amount of ACEPHATE 90SP 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 (2.71 to 4.44 lbs per acre)		
	Chinch bugs	1.0 to 1.6 oz (2.71 to 4.44 lbs per acre)	Apply as needed for adult population knockdown (10 to 14 days)	Apply the specified amount of ACEPHATE 90SP 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 (1.11 to 2.22 lbs per acre)	As sod webworms begin to appear. Use the higher amount when quick knockdown is needed or with heavy infestations. Repeat application may be necessary. Do not repeat at more than 1 week intervals.	Apply the specified amount of ACEPHATE 90SP per 1,000 sq ft. Use 1 to 15 gals water per 1,000 sq ft to obtain good coverage.
	Leafhopper	0.8 oz (2.22 lbs per acre)	As the leafhoppers begin to appear. A repeat application at 1 week intervals may be necessary.	Apply the specified amount of ACEPHATE 90SP per 1,000 sq ft. Use 1 to 15 gals water per 1,000 sq ft to obtain good coverage.

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 1,000 SQ FT	TIME OF APPLICATION	RECOMMENDED APPLICATION
	Mole Crickets (Except CA)	0.8 to 1.6 oz (2.22 – 4.44 lbs per acre)	As mole crickets begin to appear. For knockdown of existing populations, more than one application may be required throughout the growing season. For heavy infestations, use the higher dosage rate.	Apply the specified amount of ACEPHATE 90SP per 1,000 sq ft. Use 1 to 15 gals water per 1,000 sq ft to obtain good coverage.
	Mole Crickets (Except CA) (continued)	0.8 to 1.6 oz (2.22-4.44 lbs per acre)	Refer to directions on previous page.	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 90SP. The following lemon-scented products have been shown to be effective flushing agents. Lemon Joy, Lemon Palmolive and Might Myrt Products Manufacturer- Base Pure Lemon Fragrance. The use rate for these lemon-scented products is 2 teaspoons per gallon of water for small total mix volumes or 5 fl. oz. per 50 gals. of water for a large total mix volume.
	Greenbug (Schizaphis graminun), Grasshoppers	0.4 oz (1.11 lbs per acre)	Apply when insects or their damage first appear. Repeat as necessary. Application is not to be repeated at more than 1 week intervals.	Apply the specified amount of ACEPHATE 90SP per 1,000 sq ft. Use 4 to 15 gals water per 1,000 sq ft to obtain good coverage. Do not mow turfgrass for at least 24 hours after application.

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 1,000 SQ FT	TIME OF APPLICATION	RECOMMENDED APPLICATION
Dichondra (golf course turf only)	Cutworm, Flea Beetle, Southern Armyworm, Yellow Striped Armyworm	0.8 to 1.6 oz (2.2 to 4.44 lbs per acre)	As the insects appear. Repeat at 2 week intervals as necessary.	Apply the specified amount of ACEPHATE 90SP per 1,000 sq ft Use a minimum of 15 gals water per 1,000 sq ft to obtain good coverage.

OUTDOOR WASP AND PERIMETER SPRAY

Not for use on residential turf.

The use of low pressure handwand equipment for perimeter or wasp treatments is prohibited.

LOCATION	INSECTS	AMOUNT ACEPHA TE 90SP PER GALLON	TIME OF APPLICATION	RECOMMENDED APPLICATION
Outdoor wasp and perimeter area	Wasps	1.6 oz (0.10 lb)	Treat early or late in the day, as wasps are generally less active during these times.	Apply the specified amount of ACEPHATE 90SP per each gallon of water used. Apply as a spot treatment to the nest, nest entrance, and surrounding areas where the wasps alight.
	Cockroaches, Ants (excluding fire, harvester, carpenter and pharaoh ants), Pillbugs, Earwigs (Perimeter treatment)	1.6 oz (0.10 lb)	As the insects appear	Apply specified amount of ACEPHATE 90SP 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 90SP PER 100 GALS	TIME OF APPLICATION	RECOMMENDED APPLICATION
Daisies, Dahlias, Easter Lily, Gladioli, Gyposophila, Pachysandra, Peony, Roses, Sedum, Statice, Strawflower, Yarrow, Zinnia	Aphids, Thrips, Lygus,	0.55 lb (8.7 oz) Single application rate not to exceed 0.75 lb.a.i./A for cut flowers and 1.0 lb a.i./A for all other plants	As insects begin to appear. Repeat applications may be necessary.	Apply the specified amount of ACEPHATE 90SP 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.
Roses, Boston Ivy	Japanese Beetle	1.11 lbs (17.7 oz) Single application rate not to exceed 0.75 lb.a.i./A for cut flowers and 1.0 lb a.i./A for all other plants	As the Japanese Beetles begin to appear. Repeat applications at 2 week intervals may be necessary.	

COMMERCIAL GREENHOUSE FLORAL AND FOLIAGE PLANT CROPS

Do not apply more than 0.83 lbs. a.i. (13.3 oz. product) per acre per 100 gallons of water (not to exceed 0.75 lb a.i. (0.83 lbs product) per acre for cut flowers and 0.83 lbs. a.i. (13.3 oz. product) per acre for all other ornamentals).

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.

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 100 GALS	TIME OF APPLICATION	RECOMMENDED APPLICATION
Roses	Leafrollers	0.55 to 0.83 lb (8.7 to 13.3 oz)	As leafrollers begin to appear. Use the higher amount when the large larvae are present.	Apply the specified amount of ACEPHATE 90SP in 100 gals water with a hydraulic sprayer as a full coverage spray.

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 100 GALS	TIME OF APPLICATION	RECOMMENDED APPLICATION
Foliage Plants, Orchids, Anthuriums, Cacti, Poinsettia	Aphids	0.28 lb (4.3 oz)	As aphids begin to appear.	Apply the specified amount of ACEPHATE 90SP in 100 gals water with a hydraulic sprayer as a full coverage spray. The addition of a wetting agent may be required on difficult to wet foliage.
	Mealybugs, Thrips, Whiteflies	0.55 lb (8.7 oz)	As the insects begin to appear. A repeat application, at a 2 week interval, may be necessary for control of mealybugs and whiteflies.	Note: Phytotoxicity has occurred on the following foliage plants: Bletchum gibbum, Cissus antarctica, Ficus triangularis, Fittonia verschaffeltii, Maranta leuconeura kerchoveana, Pachystachya lutea, Plectranthus australis, Polypodium aureus, Polystichum, Pteris ensiformis, Tolmiea manziesii. Before treating large plantings spray only a few plants and observe 2 weeks for varietal phytotoxicity. Applications of ACEPHATE 90SP on Poinsettias after bract formation may result in phytotoxicity on certain varieties.
	Scales (crawlers)	0.55 lb (8.7 oz)	As crawlers begin to appear. Repeat applications, at a 2 week or more interval, may be necessary where there is continuous crawler production.	
	Sweet Potato Whiteflies, (except CA and NY)	0.28 lb (4.3 oz) plus 10 2/3 fl oz (0.2 lb ai) TAME 2.4 EC Spray	Apply when insects first appear. If a population is well established, make one application of the tank mix and follow 5 to 7 days later with TAME alone at 16 fl oz/100 gals. See TAME label for instructions.	For sweet potato whitefly control, apply the specified amounts of ACEPHATE 90SP 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 and TAME alone and the rotation instructions to avoid potential resistance.

PLANTS	INSECTS	AMOUNT ACEPHATE 90SP PER 100 GALS	TIME OF APPLICATION	RECOMMENDED APPLICATION
Roses, Carnations, Chrysan- themums	Aphids, Thrips	0.55 lb (8.7 oz)	As aphids begin to appear. As thrips begin to appear or at the right flower bud stage. Repeat applications may be necessary.	Apply the specified amount of ACEPHATE 90SP in 100 gals water with a hydraulic sprayer as a full coverage spray. Do not apply more often than once every 28 days to Carnations and Chrysanthemums. Note: 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. Application to Chrysanthemums and Roses with open flowers may result in phytotoxicity.

NOTE: This product is sold by weight and package is full when packed but due to fluffy nature this material is inclined to settle.

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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. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer. Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

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- ®AMBUSH - Reg. TM of ICI Agricultural Products for permethrin insecticide.
- ®AMMO - Reg. TM of FMC Agri Chemical Group for cypermethrin insecticide.
- ®ASANA - Reg. TM of E.I. duPont de Nemours & Co. for esfenvalerate insecticide.
- ®BAYTHROID - Reg. TM of Mobay Corp. for cyfluthrin synthetic pyrethroid.
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