



U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Registration Division (7505P)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

EPA Reg. Number:

70506-339

Date of Issuance:

2/15/18

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Acenthrin Insecticide

Name and Address of Registrant (include ZIP Code):

Sherry B. Hutcheson, Sr. Regulatory Manager  
 United Phosphorus, Inc.  
 630 Freedom Business Center, Suite 402  
 King of Prussia, PA 19406

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Richard Gebken, Product Manager 10  
 Invertebrate & Vertebrate Branch 2  
 Registration Division (7505P)  
 Office of Pesticide Programs

Date:

2/15/18

2. You must comply with all of the data requirements within the established deadlines for each DCI or EDSP. If you have questions about the Generic DCI or EDSPs, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division:  
<http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>
3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 70506-339.”
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

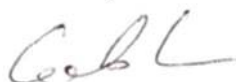
If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 11/09/2017

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Decision No. 530139

If you have any questions, please contact Richard Gebken by phone at 703-305-6701, or via email at [gebken.richard@epa.gov](mailto:gebken.richard@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Gebken', written in a cursive style.

Richard Gebken  
Product Manager 10  
Invertebrate & Vertebrate Branch 2  
Registration Division (7505P)  
Office of Pesticide Programs

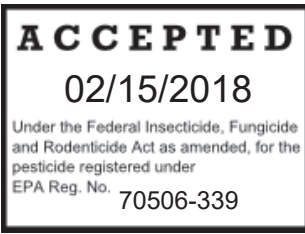
Enclosure

**RESTRICTED USE PESTICIDE**  
**Toxic to fish and aquatic organisms.**  
**For retail sale to and use only by certified applicators, or persons under their direct supervision, and only for the uses covered by the certified applicator's certification.**

GROUP	<b>1</b>	INSECTICIDE
GROUP	<b>3A</b>	INSECTICIDE

**ACENTHRIN INSECTICIDE**

Active Ingredient	By Wt.
Acephate:(O,S-Dimethyl acetylphosphoramidothioate) .....	74%
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....	6%
Other Ingredients.....	20%
Total .....	100%



\*U.S. Patent Nos. 6,752,943 and 6,875,381

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

FIRST AID	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<p><b>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE ROCKY MOUNTAIN POISON AND DRUG CENTER 1-866-673-6671.</b></p>	
<p><b>NOTE TO PHYSICIAN</b></p> <p>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. This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.</p>	

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300**

United Phosphorus, Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406  
1-800-438-6071

EPA Reg. No. 70506-339  
EPA Est. No. \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_

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

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

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Handlers of this product must wear:**

- protective eyewear (\*protective eyewear may be worn, if applicable)
- long-sleeved shirt and long pants
- shoes and socks
- chemical resistant gloves made of barrier laminate or butyl rubber or nitril rubber or neoprene rubber or polyvinyl chloride or viton

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

- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH 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**

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. **The use of human flaggers is prohibited.**

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds and extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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.

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

### USER SAFETY RECOMMENDATIONS

**Users should:**

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

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### DIRECTIONS FOR USE

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

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: coveralls, chemical resistant gloves made of any waterproof material and shoes plus socks.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or greenhouses.

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

## USE INFORMATION

ACENTHRIN INSECTICIDE is a combination insecticide product for control of pests on selected agricultural crops and in certain non-crop areas. The active ingredients in ACENTHRIN INSECTICIDE are acephate, a water-soluble insecticide readily absorbed by plant roots and foliage to give systemic control of feeding insects, and bifenthrin, which is effective by contact or ingestion. Insect pests are generally controlled more effectively by ACENTHRIN INSECTICIDE through ingestion than by contact. To maintain control, repeat application of ACENTHRIN INSECTICIDE as directed.

## RESISTANCE

Any insect/mite population may contain individual insects that may develop resistance to a specific pesticide product used in consecutive generations to control these pests. Prediction of resistance development is uncertain. Follow appropriate resistance management strategies. Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or Integrated Pest Management recommendations for the specific site and pest problems in your area.

If resistance to this product develops in your area, you may find reduced control from this product or other products with a similar mode of action. If poor performance cannot be related to improper application methods or extreme weather, it is possible that a resistant strain of insect may be present. If poor control occurs and resistance is a reasonable cause, immediately consult with your local UPI representative or agricultural advisor for the best alternative method of control for your area.

## USE RESTRICTIONS

- Do not apply with low pressure handwand equipment except for control of fire ants as a mound treatment and when used on ornamental trees, shrubs, and floral plants grown for non-agricultural or non-commercial use.
- Not for indoor residential use.
- For use on turf, use limited to sod farms and golf courses, except when applying to mound or spot treatment for fire ant and harvester ant control.
- For greenhouse/shadehouse, use is limited to commercial greenhouses/shadehouses for use on ornamental, floral and foliage plants and the tobacco floatbed application as specified in the tobacco use directions.
- Not for use on agricultural establishments in hopper-box, planter-box, slurry-box or other seed treatment applications at, or immediately before, planting.
- Do not apply this product through any type of irrigation system except as specified for use on cranberries.

## SPRAY DRIFT RESTRICTIONS

Observe the following precautions to minimize drift:

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. Do not allow this product to drift.

- All aerial, ground and air-assisted/airblast application equipment must be properly maintained and calibrated using water as carrier. Do not apply this product as an ultralow (ULV) spray or in any carrier other than water.
- Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Do not apply at wind speeds greater than 10 mph at the application site.
- Make applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph).
- Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage.

- For aerial applications, do not apply at heights greater than 10 feet (consistent with flight safety).
- For airblast applications, direct spray above foliage and turn off outward pointing nozzles at row ends and outer rows.
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.
- For ground applications, do not apply at heights greater than 4 feet.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THE 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.

**MIXING AND COMPATIBILITY**

Fill the spray tank one-third to one-half full of clean water with agitation running and add the required amount of ACENTHRIN INSECTICIDE to the spray tank. Add remaining water to bring to the desired volume and maintain agitation during mixing, loading and application. Do not add any liquid fertilizers, micronutrients or adjuvants to the spray solution until the ACENTHRIN INSECTICIDE has completely dissolved. ACENTHRIN INSECTICIDE should completely dissolve in approximately five minutes. Dissolution may be slowed by cold water, low level of agitation, or water containing high concentrations of boron or sulfur.

**FIRE ANT CONTROL**

Under prolonged hot and dry conditions, due to the location of ants deep in the nest, best results are obtained from applications made in the early morning or late afternoon when ants are most active.

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

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



**USE DIRECTIONS FOR FOLIAR APPLICATIONS TO BEANS AND LIMA BEANS**

**Dry and Succulent Forms**

**Use for Succulent green beans grown only for seed**

**Ground Application:** Apply in 20 to 100 gallons of water per acre by conventional ground equipment to ensure thorough coverage of the target crop.

**Aerial Application:** Make applications of ACENTHRIN INSECTICIDE in a minimum of 2 gallons of water per acre. Use sufficient carrier volume to provide thorough, uniform coverage.

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Aphids (excluding, Black Bean Aphid) Alfalfa Caterpillar Armyworms Beet Fall Southern Yellow Striped  Beetle Bean Leaf Cucumber Japanese (adult) Mexican Bean Sap  Bugs Plant Bugs Stink Bugs Tarnished Plant Bug  Bean Leafroller Cabbage Looper Corn Earworm Cutworms European Corn Borer Fleahoppers Green Cloverworm Leafhoppers Leafminers Pea Weevil Pea Leaf Weevil Soybean Looper Thrips Webworms Western Bean Cutworm Whitefly	6 to 21 oz.	Apply when eggs or insects first appear. Repeat at 7 day spray intervals as necessary to maintain control.* Use higher rates within the specified range for severe insect infestations.
Brown Marmorated Stink Bug	16 to 21 oz.	

**Restrictions:**

- Do not apply more than 2.83 lbs. product/A (2.1 lbs. ai acephate and 0.17 lbs ai bifenthrin).
- Do not feed treated vines to livestock.
- Do not use on succulent beans grown for fresh market or processing.
- **Succulent green beans use is only permitted if grown for seed.**
- **PHI Dry Beans: 14 days**
- **PHI Succulent: 1 day**

**Restrictions for Succulent Green Beans Grown for Seed:**

- Do not feed crop residues to livestock or allow animals to graze treated areas.
- 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.

**USE DIRECTIONS FOR FOLIAR APPLICATIONS TO  
BRUSSELS SPROUTS & CAULIFLOWER**

**Ground Application:** Apply in 25 to 150 gallons of water per acre by conventional ground equipment to ensure thorough coverage of the target crop.

**Aerial Application:** Make applications of ACENTHRIN INSECTICIDE in a minimum of 5 gallons of water per acre. Use sufficient carrier volume to provide thorough, uniform coverage.

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Aphids Armyworms Corn Earworm Crickets Beetles Cucumber Ground Flea Cutworms Diamondback Moth Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (adult)	6 to 21 oz.	Apply when eggs or insects first appear. Repeat at 7 day spray intervals as necessary to maintain control.* Use higher rates within the specified range when heavy infestations of aphids are present.
Brown Marmorated Stink Bug	16 to 21 oz.	
<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• Do not apply more than 2.83 lbs. product/A (2.1 lbs. ai acephate and 0.17 lbs ai bifenthrin).</li> <li>• Do not feed trimmings to livestock or allow animals to graze in treated areas.</li> <li>• PHI: 14 days</li> </ul>		

## USE DIRECTIONS FOR COTTON

### FOLIAR APPLICATIONS

**Ground Application:** Apply in 10 to 25 gallons of water per acre by conventional ground equipment to ensure thorough coverage of the target crop.

**Aerial Application:** Make applications of ACENTHRIN INSECTICIDE in 3 to 10 gallons of water per acre (minimum of 5 gallons per acre in AZ & CA). Use sufficient carrier volume to provide thorough, uniform coverage. . **Do not apply ACENTHRIN INSECTICIDE at more than 1.35 lbs. product/A (1,08 lb. a.i./A) in California and Arizona and not more than 1.04 lb. product/A (0.83 lb. a.i./A) for all other areas of the United States.** Use sufficient carrier volume to provide thorough, uniform coverage.

### RESISTANCE-MANAGEMENT

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

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Aphids Bollworm Cabbage Looper Cotton Leaf Perforator Armyworms Fall Yellow Striped Fleahoppers Pink Bollworm Plant bugs (Lygus) Saltmarsh Caterpillar Southern Garden Leafhopper Sweetpotato & Silverleaf Whitefly Thrips Tobacco Budworm Whiteflies	6 to 21 oz.	Begin applications when eggs or insects first appear.  Repeat application at 7 day spray intervals as necessary to maintain control*.  Use higher rates within the specified range for severe insect infestations.
Beet Armyworm Cutworms Stink bugs Lygus (AZ & CA)	16 to 21 oz.	Cutworm - Control is most effective when ground applications are made in the evenings and sprays are directed toward the base and lower portion of plant. Directed, ground applications are most effective. Aerial applications are less effective, but may be used.  Stink bug and Lygus – Apply when eggs or insects first appear.  Repeat applications at 7 day spray intervals as necessary to maintain control.*
Brown Marmorated Stink Bug	21 oz.	Apply when eggs or insects first appear. Repeat application at 7 day spray intervals necessary to maintain control*.

**RESTRICTIONS:**

- Allow at least 21 days to elapse between final application and harvest.\*
- Do not use treated seed for food or feed purposes or process for oil.
- Do not feed gin trash or forage to livestock.
- Do not allow animals to graze on treated areas.

**IN-FURROW APPLICATION**

<b>PESTS CONTROLLED</b>	<b>AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE</b>	<b>APPLICATION INSTRUCTIONS</b>
<p>Aphids (excluding Cotton Aphids in AZ &amp; CA) Thrips Black (Greasy) Cutworm (except CA) Wireworms</p>	<p>10 - 20 oz  NOTE: For the Blacklands of Texas use 20 oz/A Acenthrin</p>	<p>Apply in water a 3 to 5 gallons carrier per acre as an in-furrow spray. 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. Use higher rates within the specified range for severe insect infestations. Acenthrin can be mixed with fungicides that are sprayed in-furrow for disease control.</p>
<p>Army cutworm Armyworm spp. Cutworm spp. True armyworm</p>	<p>10-20 oz</p>	<p>Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.</p>

**RESTRICTIONS**

- Do not apply more than 5.4 lbs. product/A (4 lbs. a.i./A acephate and 0.32 lbs a.i./A bifenthrin) per season.
- When applied by air, do not apply ACENTHRIN INSECTICIDE at more than 1.35 lbs. product/A (1lb. a.i./A acephate and 0.08 lb. a.i./A bifenthrin) in California and Arizona and not more than 1.04 lb. product/A (0.77 lb. a.i./A acephate and 0.06 lb. a.i./A bifenthrin) for all other areas of the United States.
- PHI: 21 days

**USE DIRECTIONS FOR FOLIAR APPLICATIONS TO HEAD LETTUCE**  
**—Crisphead Type Only—**

**Ground Application:** Apply in 10 to 60 gallons of water per acre by conventional ground equipment to ensure thorough coverage of the target crop.

**Aerial Application:** Make aerial applications in minimum of 5 gallons of water per acre. Use sufficient carrier volume to provide thorough, uniform coverage.

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Aphids Aster Leafhopper Armyworms Beetles Cucumber Flea Cabbage Maggot Corn Earworm Cutworms Diamondback Moth Grasshoppers Imported Cabbage Worm Leafhoppers Loopers Lygus Salt Marsh Caterpillars Stink Bugs Thrips Tobacco Budworm Whitefly	6 to 21 oz.	Repeat application at 7 day spray intervals as necessary to maintain control*.  Use higher rates within the specified range for severe insect infestations.
Brown Marmorated Stink Bug	21 oz.	



**RESTRICTIONS:**

- Do not apply more than 2.83 lbs./A (2.1 lbs. a.i./A and 0.17 lb. a.i./A bifenthrin) per season.
- Do not feed trimmings to livestock or allow animals to graze on treated areas.
- For use on Spring, Summer, and early Fall crops in all areas; Winter crops in Florida and Texas; late Fall crops in Arizona; and Winter crops in Arizona and California.
- Do not apply after first head begins to form in crops which germinate from mid-September through November in desert areas of Arizona and California.
- PHI: 21 days

**USE DIRECTIONS FOR FOLIAR APPLICATIONS TO PEANUTS**

**Ground Application:** Apply in 10 to 50 gallons of water per acre by conventional ground equipment to ensure thorough coverage.

**Aerial Application:** Make aerial applications in 5 to 10 gallons of water per acre. Use sufficient carrier volume to provide thorough, uniform coverage.

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Armyworms Beet Fall Southern Yellow Striped Corn Earworm Cutworm Grasshoppers Green Cloverworm Leafhoppers Lesser Cornstalk Borer Loopers Red-necked Peanut Worm Southern Corn Rootworm Stink Bug Green Southern Green Brown Three-cornered Alfalfa Hopper Thrips Velvetbean Caterpillar	8 to 21 oz.	<p>Apply when eggs or insects first appear.</p> <p>Repeat application at 7 day spray intervals as necessary to maintain control<sup>‡</sup>.</p> <p>Use higher rates within the specified range for severe insect infestations or pest known to be difficult to control.</p> <p>ACENTHRIN INSECTICIDE can be tank mixed with registered at-cracking and early post-emergence peanut herbicides, provided those products do not prohibit tank mixes, provided the most restrictive of label limitations and precautions are followed, and provided no label dosage rates are exceeded.</p> <p>To determine physical compatibility, pour the specified 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. Do not use the mix combination if there is any separation which cannot be readily remixed. Combinations should be kept agitated and applied immediately. Do not allow combinations to set for prolonged periods in the chemical supply tank or irrigation lines.</p>
Brown Marmorated Stink Bug	6 to 12 oz.	

**RESTRICTIONS:**

- Do not apply more than 5.4 lbs. product/A (4 lbs. a.i./A acephate and 0.32 lb. a.i./A bifenthrin) per season.
- Do not feed treated forage or hay to livestock.
- Do not allow animals to graze on treated areas.
- PHI: 14 days prior to digging or lifting of peanuts.

**USE DIRECTIONS FOR FOLIAR APPLICATIONS TO BELL PEPPERS**

**Ground Application:** Apply in 25 to 150 gallons of water per acre by conventional ground equipment to ensure thorough coverage.

**Aerial Application:** Make aerial applications in minimum of 3 gallons of water per acre (minimum of 5 gal/A in CA). Use sufficient carrier volume to provide thorough, uniform coverage.

<b>PESTS CONTROLLED</b>	<b>AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE</b>	<b>APPLICATION INSTRUCTIONS</b>
Armyworms Beet Fall Southern Yellow Striped Beetles Cucumber Flea Beetle Colorado Potato Cabbage Looper Corn Earworm Cutworms Grasshoppers Leafminers Loopers Pepper Weevil Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whiteflies  Green Peach Aphid Tobacco Hornworm Lygus spp. Plant Bugs Stink Bugs	8 to 21 oz.	Apply when eggs or insects first appear.  Repeat at 7 day spray as necessary to maintain insect-pest populations below economically damaging numbers*.  Use higher rates within the specified range for severe insect infestations.
European Corn Borer Brown Marmorated Stink Bug	16 to 21 oz.	
<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• Do not apply more than 2.83 lbs. product/A (2.1 lbs. a.i./A and 0.17 lb. a.i./A bifenthrin) per season.*</li> <li>• PHI: 7 days</li> </ul>		

**USE DIRECTIONS FOR SOYBEANS**

<b>PESTS CONTROLLED</b>	<b>AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE</b>	<b>APPLICATION INSTRUCTIONS</b>
Grasshopper Cutworm Thrips	12 oz.	Apply when eggs or insects first appear.  Use higher rates within the specified range for severe insect infestations.
Potato Leafhopper Stinkbug Brown Green Southern Green	12 to 21 oz.	<b>Ground Application:</b> Apply in 10 to 50 gallons per acre by conventional ground equipment to ensure thorough coverage. <b>Aerial Application:</b> Make aerial applications in 5 to 10 gallons per acre (minimum of 5 gal/A in CA). Use sufficient carrier volume to provide thorough, uniform coverage.
Alfalfa Caterpillar Armyworms Aphids Aster Leafhopper Beetles Bean Leaf Cucumber (Adult) Flea Japanese (Adult) Mexican Bean Sap Cabbage Looper Cabbageworm Green Cloverworm Kudzu Bug Lygus spp. Pea Leaf Weevil Pea Weevil Plant Bug Saltmarsh Caterpillar Tobacco Budworm Threecornered Alfalfa Hopper, Velvetbean Caterpillar Webworms Whitefly	8 to 21 oz.	
Brown Marmorated Stink Bug	21 oz.	

**RESTRICTIONS:**

- Do not apply more than 2.09 lbs. product/A (1.55 lbs. a.i./A acephate and 0.13 lb. a.i./A bifenthrin) per crop cycle.
- Allow at least 14 days to elapse between final application and harvest.

- Do not apply more than once every 30 days.
- Do not graze or cut vines for hay or forage.

**IN FURROW SOYBEANS**

<b>PESTS CONTROLLED</b>	<b>AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE</b>	<b>AMOUNT OF ACENTHRIN INSECTICIDE PER 1,000 LINEAR FOOT</b>	<b>APPLICATION INSTRUCTIONS</b>
Rootworm larvae	20 oz	1.15 oz	Apply as a 5-7 inch band over the row on the soil surface, a 5-7 inch band over the open furrow (T-band), or in-furrow with the seed.
	0.925 lb ai/A Acephate and 0.075 lb ai/A Bifenthrin		
Grape colapsis Grubs Root maggot Seedcorn maggot Wireworm	10-20 oz	0.57-1.15 oz	
	0.46 lb ai/A Acephate and 0.0375 lb ai/A Bifenthrin 0.925 lb ai/A Acephate and 0.075 lb ai/A Bifenthrin		
Army cutworm Armyworm spp. Cutworm spp. True armyworm	10-20 oz	0.57-1.15 oz	Apply broadcast over the soil surface for control.
	0.46 lb ai/A Acephate and 0.0375 lb ai/A Bifenthrin 0.925 lb ai/A Acephate and 0.075 lb ai/A Bifenthrin		

**USE DIRECTIONS FOR TOBACCO**

**TOBACCO TRANSPLANT WATER APPLICATION (EXCEPT CA)**

<b>PESTS CONTROLLED</b>	<b>AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE</b>	<b>APPLICATION INSTRUCTIONS</b>
Armyworms Cutworms Flea Beetle Green Peach Aphid Mole Cricket Potato Tuberworm Stalkborers Tobacco Aphid Tobacco Flea Beetle Tobacco Thrips White Grubs Wireworms	16 oz.	<p>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 ACENTHRIN INSECTICIDE.</p> <p>Apply in a minimum of 100 gals. of transplant water per acre. ACENTHRIN INSECTICIDE should be pre-mixed in water to form a slurry solution prior to adding to the transplant water tank.</p>
<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• Do not apply more than 3.3 lbs. product/A (2.44 lbs. a.i./A acephate and 0.2 lbs. a.i./A bifenthrin) per season.</li> <li>• Total Acephate lbs. ai.. may not exceed 4 lbs. ai.. per acre. Total Bifenthrin lbs. ai may not exceed 0.2 lbs. This includes the use of other Acephate- and Bifenthrin-containing products in transplant water, plant bed, soil, float bed (greenhouse), and foliar applications.</li> <li>• 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.</li> <li>• Do not apply more than 16 oz of ACENTHRIN INSECTICIDE per acre as a transplant water application as some phytotoxicity may occur.</li> <li>• PHI: 3 days.</li> </ul>		

**TOBACCO FOLIAR APPLICATION (EXCEPT CA)**

**Ground Application:** Apply in 10 to 50 gallons of water per acre by conventional ground equipment to ensure thorough coverage.

**Aerial Application:** Make aerial applications in minimum of 3 gallons of water per acre. Use sufficient carrier volume to provide thorough, uniform coverage.

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Grasshoppers Green Peach Aphid Flea Beetle Hornworm Tobacco Thrips	8 to 12 oz.	Make a second application in 7 days if needed.* No more than two foliar applications per season.  Use higher rates within the specified range for severe insect infestations.
Aphids Armyworms Chinch Bugs Beetles Cucumber Flea (Adults) Japanese Cutworms Grasshoppers Green Bugs Saltmarsh Caterpillars Stink bugs Tarnished Plant Bugs Thrips Tobacco Aphid Tobacco Budworm Tobacco Hornworm Vegetable Weevils Whiteflies	6 or 8 to 16 oz.	
Cabbage Looper	16 oz.	
Lygus spp. Brown Marmorated Stinkbug	21 oz.	



**RESTRICTIONS:**

- Do not apply more than 3.3 lbs. product/A (2.44 lbs. a.i./A acephate and 0.2 lbs. a.i./A bifenthrin) per season.
- Total Acephate lbs. ai.. may not exceed 4 lbs. ai.. per acre. Total Bifenthrin lbs. ai may not exceed 0.2 lbs. This includes the use of other Acephate- and Bifenthrin-containing products in transplant water, plant bed, soil, float bed (greenhouse), and foliar applications
- Do not make more than 2 foliar applications per season.
- Do not apply later than layby.
- PHI: 3 days.

**COMMERCIAL TURFGRASS: GOLF COURSES AND SOD FARMS ONLY**

**DO NOT use this product on Golf Courses or Sod Farms in Nassau County or Suffolk County, New York.** 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 applications to turf are prohibited.

In New York State, this product may NOT be applied to turf within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch). In New York State, do make a single repeat application of ACENTHRIN INSECTICIDE if there are signs of renewed insect activity, but not sooner than two (2) weeks after the first application.

PLANTS	INSECTS	AMOUNT OF ACENTHRIN INSECTICIDE PER 1000 SQ. FT.	APPLICATION TIMING	APPLICATION INSTRUCTIONS
Turfgrass (Golf courses and Sod Farms only)	Fall Armyworm Yellow Striped Armyworm Southern Armyworm	0.4 to 0.9 oz. (1 to 2.5 lbs. per acre)	As the insects appear. A repeat application at a 14-day interval may be necessary.	Apply the specified amount of ACENTHRIN INSECTICIDE per 1,000 sq. ft. Use a minimum of 5 gallons of water per 1,000 sq. ft. to obtain good coverage.
	Cutworm	Golf course: 0.9 to 1.4 oz. (2.5 to 3.8 lbs. per acre)  Sod farms: 0.9 to 1.1 oz. (2.5 to 3.0 lbs. per acre)		
	Chinch Bugs	Golf course: 0.9 to 1.4 oz. (2.5 to 3.8 lbs. per acre)  Sod farms: 0.9 to 1.1 oz. (2.5 to 3.0 lbs. per acre)	Apply as needed for adult population knockdown.  Apply at 10- to 14-day intervals as needed.	Apply the specified amount of ACENTHRIN INSECTICIDE per 1,000 sq. ft. Use 1 to 15 gallons of water per 1,000 sq. ft. to obtain good coverage.  Use higher rates within the specified range for severe insect infestations.
	Annual Bluegrass Weevil (adults and larvae)	0.9 to 1.4 oz. (2.5 to 3.8 lbs. per acre)	Apply at 10- to 14-day intervals as needed.	
	European Crane Fly (larvae)	0.9 oz. (2.5 lbs. per acre)	Apply in late summer to early fall.	
	Leafhopper	0.75 oz. (2 lbs. per acre)	As the leafhoppers begin to appear. A repeat application at a 7-day interval may be necessary.	

PLANTS	INSECTS	AMOUNT OF ACENTHRIN INSECTICIDE PER 1000 SQ. FT.	APPLICATION TIMING	APPLICATION INSTRUCTIONS
	<p>Mole Crickets (except CA.) Spittlebug (except CA.)</p>	<p>Golf courses: 0.8 to 1.4 oz. (2.2 to 3.8 lbs. per acre)</p> <p>Sod farms: 0.8 to 1.1 oz. (2.2 to 3.0 lbs. per acre)</p>	<p>As mole crickets begin to appear.</p> <p>For knockdown of existing populations, more than one application may be required throughout the growing season. For heavy infestations, use the higher dosage rate.</p> <p>Apply at 7- to 14-day intervals as needed.</p>	<p>Apply the specified amount of ACENTHRIN INSECTICIDE per 1,000 sq. ft. Use 1 to 15 gallons of water per 1,000 sq. ft. to obtain good coverage.</p> <p>Apply during late afternoon or early evening hours and after irrigation. Do not irrigate after application. Use higher rates within the specified range for severe insect infestations.</p> <p>The use of a lemon fragrance substance in the spray mix may enhance control by acting as a flushing agent and thus provide increased mole cricket contact. The following lemon-scented products have been shown to be effective flushing agents: Lemon Joy, Lemon Palmolive, and Mighty Products manufactured-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 gallons of water for large mix volume.</p>

**COMMERCIAL TURFGRASS: GOLF COURSES AND SOD FARMS ONLY (continued)**

PLANTS	INSECTS	AMOUNT OF ACENTHRIN INSECTICIDE PER 1000 SQ. FT.	APPLICATION TIMING	APPLICATION INSTRUCTIONS
Turfgrass (Golf courses and Sod Farms only)	Sod Webworm (Crambus spp.)	0.4 to 0.8 oz. (1.1 to 2.2 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 needed.  Apply at 7- to 14-day intervals as needed.	Apply the specified amount of ACENTHRIN INSECTICIDE per 1,000 sq. ft. Use 1 to 15 gallons of water per 1,000 sq. ft. to obtain good coverage. Use higher rates within the specified range for severe insect infestations.
	Greenbug (Shizaphis graminum) Grasshoppers	0.4 oz. (1.1 lb. per acre)	Apply when insects or their damage first appear.  Apply at 7- to 14-day intervals as needed.	Apply the specified amount of ACENTHRIN INSECTICIDE. Use 4 gallons 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.)	Golf courses: 0.9 to 1.4 oz. (2.5 to 3.8 lbs. per acre)  Sod Farms: 0.9 to 1.1 oz. (2.5 to 3.0 lbs. per acre)	Apply when insects or their damage first appear.  Apply at 7- to 14-day intervals as needed.	Apply the specified amount of ACENTHRIN INSECTICIDE per 1,000 sq. ft. Use a minimum of 5 gallons of water per 1,000 sq. ft. Irrigate lightly after application (not more than ½ inch). Use the higher rate for severe infestations. Use higher rates within the specified range for severe insect infestations.
Dichondra (Golf courses and Sod Farms only)	Cutworm Flea Beetle Southern Armyworm Yellow Striped Armyworm	Golf courses: 0.8 to 1.4 oz. (2.2 to 3.8 lbs. per acre)  Sod Farms: 0.8 to 1.1 oz. (2.2 to 3.0 lbs. per acre)	Apply when the insects appear. Repeat at 14-day intervals as necessary.	Apply the specified amount of ACENTHRIN INSECTICIDE per 1,000 sq. ft. Use a minimum of 15 gallons of water per 1,000 sq. ft. to obtain good coverage. Use higher rates within the specified range for severe insect infestations.

**RESTRICTIONS:**

- Do not apply more than 3.09 lbs. product/A (2.29 lbs. a.i./A acephate and 0.18 lb. a.i./A bifenthrin) for Sod Farms and 4.12 lbs. product/A (3.05 lbs. a.i./A acephate and 0.25 lb. a.i./A bifenthrin) for Golf Courses.
- For Sod Farms, allow at least 3 days to elapse between final application and harvesting sod.
- Do not apply aerially.

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

PLANTS	INSECTS	AMOUNT ACENTHRIN INSECTICIDE	APPLICATION TIMING	APPLICATION INSTRUCTIONS
Turfgrass and Non-Crop Areas	Imported Fire Ants and Harvester Ants	<b>Mound Treatment-Drench Method:</b> Mix 0.75 oz. in 5 gallons of water. Apply 1 gallon 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.	Apply when insects first appear.	Apply the specified amount of ACENTHRIN INSECTICIDE as directed. Grass in treated areas may be injured.  For best results apply the material in the early morning or late afternoon when the ants are most active. Applications made under prolonged dry and hot conditions may be ineffective due to the location of the ants deep within the nest.

**RESTRICTIONS:**

- Do not treat mound more than once per season.
- For Sod Farms: Allow at least 3 days to elapse between last application and harvesting.
- Do not allow livestock to graze treated areas.
- Do not feed treated grass to livestock.

**ORNAMENTAL USES**

**PRODUCT INFORMATION**

ACENTHRIN INSECTICIDE can be used in the production and maintenance of horticultural crops in nurseries, greenhouses or in the landscape.

**CROP TOLERANCE**

ACENTHRIN INSECTICIDE is generally not phytotoxic to most greenhouse or field grown plants. However, it is impossible to test all plant varieties and cultural conditions. Before treating large plantings, apply to a representative group of plants and observe for two weeks to assure that a particular variety, grown under current conditions is not sensitive to ACENTHRIN INSECTICIDE.

The following have been found sensitive to ACENTHRIN INSECTICIDE:

**Trees:** Balm of Gilead, Cottonwood, Lombardy Poplar or *Viburnum suspensum* and Crabapple varieties - Ichonoski, *Malus floribunda*, Pink Perfection, Red Wine and Snow Cloud.

**Plants:** *Blechnum gibbum*, *Cissus Antarctica*, *Ficus triangularis*, *Fittonia verschoffeltii*, *Maranta leuconeura kerchoveana*, *Pachystachya lutea*, *Plectranthus australis*, *Polypodium aureus*, *Polystichum*, *Pteris ensiformis*, *Tolmiea menziesii*.

**Chrysanthemum Varieties:** Albatross, Bonnie Jean, Dixie, Garland, Gem, Iceberg, Pride, Showoff, Statesman, Tally Ho, Westward Ho and Wild Honey. Applications to Chrysanthemums and Roses with open flowers may results in flower damage.

<b>SMALL VOLUME SPRAY EQUIPMENT (for use in T&amp;O only)</b>
<b>PREPARATION OF ACENTHRIN INSECTICIDE SPRAY MIX USING A 16 OUNCE</b>

<b>LABEL DIRECTION PER ACRE IN 100 GALLONS OF WATER</b>	<b>EQUIVALENT PER ACRE IN 25 GALLONS OF WATER</b>	<b>EQUIVALENT PER ACRE IN 1 GALLON OF WATER (TEASPOONS/GALLON)</b>
<b>0.5 lb.</b>	<b>2 oz.</b>	<b>2/3 tsp.</b>
<b>1 lb.</b>	<b>4 oz.</b>	<b>1 1/3 tsp.</b>
<b>1.5 lbs.</b>	<b>6 oz.</b>	<b>2 tsp.</b>
<b>2 lbs.</b>	<b>8 oz.</b>	<b>2 2/3 tsp.</b>

**NON-BEARING CITRUS**

PLANTS	PESTS CONTROLLED	AMOUNT ACENTHRIN INSECTICIDE PER ACRE	TIME OF APPLICATION	FURTHER USE INSTRUCTIONS
Non-bearing Citrus (including citrus nursery seedlings)	Aphid, Grasshopper, Katydid, Mealybugs, Orangedog, Plant Bugs (Lygus), Thrips, Whiteflies	1.25 lb. (20 oz.)	Apply as needed for control of existing populations.	Apply ACENTHRIN INSECTICIDE in 100 to 200 gallons of water per acre. Spray individual juvenile or non-bearing trees for coverage with total application not to exceed specified rate in lbs. per acre. Length of residual activity will depend upon spray coverage and the amount of moisture following application.
	Citrus Blackfly *	1.25 – 1.75 lbs. (20 – 28 oz.)	Use the higher label rate when a heavy infestation of Citrus Blackfly is present. Begin applications when eggs or adults first appear. Apply on a 7 to 10 day interval or as needed to maintain control.	
Non-bearing Citrus (including citrus nursery seedlings)	Ants (excluding Carpenter, Fire, Harvester, and Pharaoh)	Foliar Spray 1.75 lbs. (28 oz.)	Apply as needed for control of existing populations.	Apply ACENTHRIN INSECTICIDE 100 to 200 gallons of water per acre. Spray individual juvenile or non-bearing trees for coverage with total application not to exceed specified rate in lbs. per acre. Length of residual activity will depend upon spray coverage and the amount of moisture following application.
	Fire Ant, Harvester Ant *	<b>Drench Method:</b> Mix 2 oz. in 5 gallons of water. Apply 1 gallon of mix to each mound area by sprinkling the mound until it is wet and treat a four (4) foot diameter circle around the mound.	For best results, apply the material in the early morning or late afternoon when the ants are most active.	Applications made under prolonged hot and dry conditions may be ineffective due to the location of the ants deep within the nest.

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

**N NURSERY STOCK**  
**Non-Bearing Deciduous Fruit Trees, Nut Trees and Vines in**  
**R Nursery Fields or Non-Bearing Orchards**

PLANTS	PESTS CONTROLLED	AMOUNT ACENTHRIN INSECTICIDE PER ACRE	TIME OF APPLICATION	FURTHER USE INSTRUCTIONS
Nursery Stock (Non-bearing Deciduous Fruit Trees, Nut Trees, Vines) Almond Apricot Apple Cherry Grape Kiwi Pear Pistachio Plum Prune Walnut	Aphid, Leafhoppers, Leafminers, San Jose Scale (Crawlers), Mealybugs, Japanese Beetle, Stink Bugs, Plant Bugs (Lygus), Whiteflies.	1.25 – 2.5 lbs. (20 - 40 oz.)	Apply as needed for control of existing populations.	Apply ACENTHRIN INSECTICIDE in 50 to 200 gallons of water per acre by ground.
	Ants (excluding Carpenter, Fire, Harvester, and Pharaoh)	Foliar Spray 1.75 lbs. (28 oz.)	Apply as needed for control of existing populations.	Apply ACENTHRIN INSECTICIDE in 100 to 200 gallons of water per acre. Spray individual 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.
	Fire Ant, Harvester Ant *	<b>Drench Method:</b> Mix 2 oz. in 5 gallons of water. Apply 1 gallon 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.  Restriction: Do not treat mound more than once per season.

\* Not registered in California for control of Harvester Ants.



**CONTAINER GROWN NURSERY STOCK**

**Restrictions**

- For repeat applications, use a minimum spray interval of 7 days for rates greater than 1 lb. product/A.

PLANTS	PESTS CONTROLLED	AMOUNT ACENTHRIN INSECTICIDE PER ACRE	TIME OF APPLICATION	FURTHER USE INSTRUCTIONS
Container Grown Nursery Stock (Arborvitae, Azalea, Camellia, Rhododendron, Roses, Viburnum, Yew)	Black Vine Weevil, Strawberry Root Weevil	1.75 lbs. (28 oz.)	<p>Make application by mid-September for greenhouse stock and by mid-October for outdoor stock.</p> <p>Consult your local County Extension Agent for information on the identification and control of root weevils on ornamentals.</p>	Apply the specified amount of ACENTHRIN INSECTICIDE per 100 gallons of solution so as to thoroughly drench the root system.
	Ants (excluding Fire, Harvester, Carpenter, and Pharaoh ants)	1.75 lbs. (28 oz.)	Apply as needed to control the pest.	

**ORNAMENTAL TREES AND SHRUBS**

PLANTS	PESTS CONTROLLED	AMOUNT ACENTHRIN INSECTICIDE PER ACRE	TIME OF APPLICATION	FURTHER USE INSTRUCTIONS
Trees and Shrubs (except Flowering Crabapple and Douglas Fir – see below)	Aphids, Bagworm, Birch Leafminer, Lace Bug, Leafroller, Tent Caterpillar *	1.0 – 1.5 lb. (16 - 24 oz.)	Make application as the insects begin to appear.	Apply the specified amount of Acephrin in 100 gallons of water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy Moth larvae.  <b>Mist blower application:</b> Adjust rates to 2 lbs. per 100 gallons of water for Gypsy
	Douglas Fir Tussock Moth Larvae, Gypsy Moth Larvae *, Webworms	1.5 lb. (24 oz.)	Make application as the insects begin to appear.	
	Scales (Crawlers)	1.25 lb. (20 oz.)	Make application as the crawlers begin to appear. Repeat applications, at a 2-week or more interval, may be necessary where there is continuous crawler production.	Moth control and 1.5 lbs per 100 gallons of water for Tent Caterpillar control. United Phosphorus, Inc. does not advise application be made to Huckleberry, Balm of Gilead, Cottonwood, Lombardy Poplar, and Viburnum suspensum as it may result in phytotoxicity in these plants.  <b>Nursery crops:</b> Before treating large plantings, spray only a few plants and observe two weeks for phytotoxicity.
	Ponderosa Pine Needle Miner	1.25 lb. (20 oz.)	Time of application is important. Consult your County Extension Agent.	Apply the specified amount of Acephrin in 100 gallons of water with a hydraulic sprayer as a full coverage spray.

PLANTS	PESTS CONTROLLED	AMOUNT ACENTHRIN INSECTICIDE PER ACRE	TIME OF APPLICATION	FURTHER USE INSTRUCTIONS
Trees and Shrubs (except Flowering Crabapple and Douglas Fir – see below)	Grasshopper	1.25 lb. (20 oz.)	Make application as the grasshoppers begin to appear.	Apply the specified amount of ACENTHRIN INSECTICIDE in 100 gallons of water with a hydraulic sprayer as a full coverage spray.
	California Oakworm, Cankerworm (Spring and Fall),	0.75 – 1.5 lb. (12 – 24 oz.)	Make application as the insects begin to appear. Use the higher rate when larger larvae are present.	Apply the specified amount of ACENTHRIN INSECTICIDE in 100 gallons of water with a hydraulic sprayer.
	Nantucket Pine Tip Moth Larvae	1.75 lbs. (28 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	1.75 lbs. (28 oz.)	Apply when first feeding damage occurs. Repeat applications, at 4-week intervals until the first heavy frost, may be necessary for complete foliage protection.	Apply the specified amount of ACENTHRIN INSECTICIDE in 100 gallons of water with a hydraulic sprayer as a full coverage spray.
	Box Elder Bug, Budworm, Leafhopper, Sawflies	1.75 lbs. (28 oz.)	Make application as insects begin to appear.	
	Japanese Beetle	2.5 lbs. (40 oz.)	Make application as the beetle begins to appear. Repeat applications as necessary at 2-week intervals.	Apply the specified amount of ACENTHRIN INSECTICIDE in 100 gallons of water with a hydraulic sprayer as a full coverage spray.

	Elm Leaf Beetle (larvae)	2.5 lbs. (40 oz.)	Make application as the larvae begin to appear. ACENTHRIN will not prevent Elm Leaf Beetle eggs from hatching.	Apply the specified amount of ACENTHRIN INSECTICIDE in 100 gallons of water with a hydraulic sprayer as a full coverage spray.
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PLANTS	PESTS CONTROLLED	AMOUNT ACENTHRIN INSECTICIDE PER ACRE	TIME OF APPLICATION	FURTHER USE INSTRUCTIONS
Douglas Fir (Christmas Trees)	Douglas Fir Needle Midge	1.25 lb. (20 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 ACENTHRIN INSECTICIDE in 100 gallons of spray per acre by ground.  Restriction: Do not make more than 1 application per season.
Flowering Crabapples	Aphid, Leafroller, Tent Caterpillar	0.75 lb. (12 oz.)	Make application as the insects begin to appear.	Apply the specified amount of ACENTHRIN INSECTICIDE in 100 gallons of water with a hydraulic sprayer.  Restriction: Do not apply more often than 3 times in a growing season at 4-week intervals.  Phytotoxicity has occurred on the following Crabapple varieties: Hopa, Ichonoski, <i>Malus floribunda</i> , Pink Perfection, Red Wine and Snow Clou.
Crepe Myrtle	Aphid	5 to 7 level tbsp. (1.5 – 2.1 oz.) per 1 tbsp. of water	Make application as aphids begin to appear.	Make a paint-on slurry by mixing the specified amount of ACENTHRIN INSECTICIDE with 1 tbsp. of water. Remove the loose bark from the trunk areas to be treated. Paint a band completely 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, make application as low as possible within the treatment zone.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep pesticide in original container. Do not put concentrate or dilute product into food or drink containers. Store in cool, dry place. Protect from excessive heat. Do not contaminate food or foodstuffs. Do not store near feed or food.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

### **Nonrefillable containers 5 gallons or less:**

**Container Handling:** 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 and drain for 10 seconds after the flow begins to drip. 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.

**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 mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

### **Refillable containers 5 gallons or larger:**

**Container Handling:** Refillable container. 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. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

### **Nonrefillable containers 5 gallons or larger:**

**Container Handling:** 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. **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 mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

**IMPORTANT INFORMATION  
READ BEFORE USING PRODUCT**

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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Rev. 02/14/2018