

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 7, 2022

Christine Villegas Regulatory Manager UPL NA Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406

Subject: Label Amendment – Addition of NY state restrictions, Bifenthrin IRRD initiated language, and other label edits Product Name: ACENTHRIN INSECTICIDE EPA Registration Number: 70506-339 Application Date: November 16, 2018 and February 17, 2021 Decision Number: 554639 and 570928

Dear Ms. Villegas:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Bifenthrin Interim Decision, and has concluded that your submission is acceptable

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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.

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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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact David Gardner by phone at (202) 566-2677, or via email at gardner.david@epa.gov.

Sincerely,

Jamica Cair

Tamica Cain, Acting Product Manager 10 Invertebrate & Vertebrate Branch 2 Registration Division (7505P)

Enclosure

Acenthrin Insecticide Amendment May 18, 2021

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.

ACEPHATE	GROUP	1	INSECTICIDE
BIFENTHRIN	GROUP	3 A	INSECTICIDE

ACENTHRIN INSECTICIDE

Active Ingredient	By Wt.
Acephate:*(O,S-Dimethyl acetylphosphoramidothioate)	
Bifenthrin (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,	3-trifluoro-
1-propenyl)-2,2-dimethylcyclopropanecarboxylate	
Other Ingredients	
Total	
Patent Nos. 6 752 042 and 6 875 381	

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

[OPTIONAL REFERRAL STATEMENTS for commercial packaging:

Outer case/carton/box: See (containers) inside for additional Precautionary Statements and complete Directions For Use.

Bag: See attached booklet on back for additional Precautionary Statements and complete Directions For Use. On booklet:

Outer booklet: See inside for additional Precautionary Statements and complete Directions For Use.

Base label of booklet: See attached booklet for additional Precautionary Statements and complete Directions For Use. PEEL DOWN FOR DIRECTIONS]

KEEP OUT OF REACH OF CHILDREN CAUTION



FIRST AID			
If swallowed	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person. 		
If on skin	 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 in eyes	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. 		

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 SAFETY 1-866-673-6671.

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. 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.

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

UPL NA, 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 WEIGHT: _____ lbs.

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 ≥14 mils, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride ≥14 mils, or viton ≥14 mils

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

• A minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSHapproved powered air purifying respirator with HE filters.

Mixers and loaders supporting aerial applications to cotton must wear at a minimum:

- long-sleeved shirt and long pants,
- chemical-resistant gloves,
- shoes plus socks

Mixers, loaders, and applicators using mechanically pressurized handguns for applications to tobacco must wear at a minimum:

- long-sleeved shirt and long pants,
- chemical-resistant gloves,
- shoes plus socks

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.

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.

NON-TARGET ORGANISM ADVISORY STATEMENT

This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/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. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms.

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.

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.

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 barrier laminate ≥ 14 mils, or butyl rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils, or neoprene rubber ≥ 14 mils, or polyvinyl chloride ≥ 14 mils, or viton ≥ 14 mils, and shoes plus socks.

Mixers and loaders Mixers and loaders supporting aerial applications to cotton must wear at a minimum: long-sleeved shirt and long pants, chemical-resistant gloves, shoes plus socks.

Mixers, loaders, and applicators using mechanically pressurized handguns for applications to tobacco must wear at a minimum: long-sleeved shirt and long pants, chemical-resistant gloves, 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.

For outdoor use only.

RESISTANCE MANAGEMENT

For resistance management, Acenthrin Insecticide contains both a Group 1 and Group 3A insecticides. Any insect population may contain individuals naturally resistant to Acenthrin Insecticide and other Group 1 or 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Acenthrin insecticide or other Group 1 or 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition,

consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):

- Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
- Mixtures with components have the same IRAC mode of action classification are not recommended for insect resistance management.
- When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological or other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistancemanagement and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact your local UPI representative.

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.
- In New York State, this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.
- For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not spray the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not allow the product to enter any drain during or after application.
- Do not apply or irrigate to the point of runoff.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.
- For outdoor use only.
- Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).

- Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application.
- Do not apply when the wind speed is greater than 15 mph. For outdoor applications to commercial nurseries
 - Do not apply when the wind speed is greater than 15 mph.
 - Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- Buffer Zones to Water Bodies (Ground Application)
 - Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).
- Ultra Low Volume (ULV) Aerial Application
 - Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Applications made by mosquito control districts and other public health officials are exempt from this requirement.
- Non-ULV Aerial Application
 - Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

Airblast Applications:

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

• Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Handheld Technology Applications:

• Take precautions to minimize spray drift.

For outdoor applications to commercial nurseries:

- Do not apply when the wind speed is greater than 15 mph.
- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- For soil or foliar applications, do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

VEGETATIVE FILTER STRIPS

Construct and maintain a vegetative filter strip, according to the width specified below, of grass or other permanent vegetation between the field edge and nearby down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing bifenthrin onto fields where a maintained vegetative filter strip of **at least 25 feet** exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).
 - For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
 - The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
 - Conservation tillage is being implemented on the area of application. Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till.
 - A functional terrace system is maintained on the area of application.
 - Water and sediment control basins for the area of application are functional and maintained.
 - The area of application is less than or equal to 10 acres.

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175.

Ground Application

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Ultra Low Volume (ULV) Aerial Application

Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Applications made by mosquito control districts and other public health officials are exempt from this requirement.

Non-ULV Aerial Application

Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit <u>https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators</u>. **Managed pollinator protection plans** are developed by states/tribes to promote communication between growers, landowners, farmer, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

How to Report Bee Kills

It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at <u>beekill@epa.gov</u>. To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: <u>http://npic.orst.edu/reg/state_agencies.html</u>.

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: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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)	6 to 21 oz.	Apply when eggs or insects first appear.
Alfalfa Caterpillar		Repeat at 7 day spray intervals as necessary to maintain
Armyworms Beet Fall Southern Yellow Striped		control. Use higher rates within the specified range for severe insect infestations.
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		
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	AMOUNT OF	APPLICATION INSTRUCTIONS
CONTROLLED	ACENTHRIN	
	INSECTICIDE	
	PER ACRE	
Aphids	6 to 21 oz.	Apply when eggs or insects first appear.
Armyworms		Repeat at 7 day spray intervals as necessary to maintain control.
Corn Earworm		
Crickets		Use higher rates within the specified range when heavy infestations
Beetles		of aphids are present.
Cucumber		
Ground		
Flea		
Cutworms		
Diamondback Moth		
Imported		
Cabbageworm		
Leafhoppers		
Loopers		
Saltmarsh Caterpillar		
Stink Bugs		
Thrips		
Tobacco Budworm		
Whitefly		
Wireworm (adult)		
Brown Marmorated	16 40 21 00	
Stink Bug	16 to 21 oz.	
RESTRICTIONS:		
• DO NO	DT apply more than 2.83	B lbs. product/A (2.1 lbs. ai acephate and 0.17 lbs ai bifenthrin).
		vestock or allow animals to graze in treated areas.

• PHI: 14 days

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	6 to 21 oz.	Begin applications when eggs or insects first appear.
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		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.

- 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

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Aphids (excluding Cotton Aphids in AZ & CA) Thrips Black (Greasy) Cutworm (except CA) Wireworms	10 to 20 oz NOTE: For the Blacklands of Texas use 20 oz/A Acenthrin	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.
Army cutworm Armyworm spp. Cutworm spp.	10 to20 oz	Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.

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

- 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	8 to 21 oz.	Apply when eggs or insects first appear.
Beet Fall Southern		Repeat application at 7 day spray intervals as necessary to maintain control.
Yellow Striped Corn Earworm Cutworm		Use higher rates within the specified range for severe insect infestations or pest known to be difficult to control.
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		ACENTHRIN INSECTICIDE can be tank mixed with registered at- cracking and early post-emergence peanut herbicides, provided those products do not prohibit tank mixes. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. 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.
Brown Marmorated	6 to 12 oz.	
Stink Bug		
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.

PESTS	AMOUNT OF	APPLICATION INSTRUCTIONS
CONTROLLED	ACENTHRIN	
	INSECTICIDE	
	PER ACRE	
Armyworms	8 to 21 oz.	Apply when eggs or insects first appear.
Beet		Repeat at 7 day spray as necessary to maintain insect-pest populations
Fall		below economically damaging numbers.
Southern Yellow		below economicany damaging numbers.
Striped		Use higher rates within the superified range for severe insect
Beetles		Use higher rates within the specified range for severe insect infestations.
Cucumber		intestations.
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		
Sunk Dugs		
European Corn Borer	16 to 21 oz.	1
Brown Marmorated		
Stink Bug		
RESTRICTIONS:		•

• PHI: 7 days

USE DIRECTIONS FOR SOYBEANS

PESTS	AMOUNT OF	APPLICATION
CONTROLLED	ACENTHRIN	INSTRUCTIONS
	INSECTICIDE	
	PER ACRE	
Grasshopper	12 oz.	Apply when eggs or insects first appear.
Cutworm		
Thrips		Use higher rates within the specified range for severe insect
Potato Leafhopper	12 to 21 oz.	infestations.
Stinkbug		
Brown		Ground Application: Apply in 10 to 50 gallons per acre by
Green		conventional ground equipment to ensure thorough coverage.
Southern Green		Aerial Application: Make aerial applications in 5 to 10 gallons per
Alfalfa Caterpillar	8 to 21 oz.	acre (minimum of 5 gal/A in CA). Use sufficient carrier volume to
Armyworms		provide thorough, uniform coverage.
Aphids		provide diorough, uniform coverage.
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		
Brown Marmorated	21 oz.	
Stink Bug		
RESTRICTIONS:		·

- **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

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	AMOUNT OF ACENTHRIN INSECTICIDE PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Rootworm larvae	20 oz 0.925 lb ai/A Aceph Bifenthrin	1.15 oz ate and 0.075 lb ai/A	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
Grape colapsis Grubs Root maggot Seedcorn maggot Wireworm	10 to 20 oz0.57 to 1.15 oz0.46 lb ai/A Acephate and 0.0375 lb ai/ABifenthrin0.925 lb ai/A Acephate and 0.075 lb ai/ABifenthrin		seed.
Army cutworm Armyworm spp. Cutworm spp. True armyworm	Bifenthrin	0.57 to 1.15 oz te and 0.0375 lb ai/A ate and 0.075 lb ai/A	Apply broadcast over the soil surface for control.

USE DIRECTIONS FOR TOBACCO

PESTS CONTROLLED	AMOUNT OF ACENTHRIN INSECTICIDE PER ACRE	APPLICATION INSTRUCTIONS
Armyworms Cutworms Flea Beetle Green Peach Aphid Mole Cricket Potato Tuberworm Stalkborers Tobacco Aphid Tobacco Flea Beetle Tobacco Thrips White Grubs Wireworms	16 oz.	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. 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.

TOBACCO TRANSPLANT WATER APPLICATION (EXCEPT CA)

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.
- 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 16 oz of ACENTHRIN INSECTICIDE per acre as a transplant water application as some phytotoxicity may occur.

• PHI: 3 days.

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	APPLICATION INSTRUCTIONS
	INSECTICIDE	
	PER ACRE	
Grasshoppers	8 to 12 oz.	Make a second application in 7 days if needed. No more than two foliar
Green Peach Aphid		applications per season.
Flea Beetle		
Hornworm		Use higher rates within the specified range for severe insect infestations.
Tobacco Thrips		
Aphids	8 to 16 oz.	
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		
Cabbage Looper	16 oz.	
Lygus spp.	21 oz.	
Brown Marmorated		
Stinkbug		
Stinkbug		

- 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 Cutworm	0.4 to 0.9 oz. (1 to 2.5 lbs. per acre) 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)	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. Use higher rates within the specified range for severe insect infestations.
	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 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) European Crane Fly (larvae) Leafhopper	0.9 to 1.4 oz. (2.5 to 3.8 lbs. per acre) 0.9 oz. (2.5 lbs. per acre) 0.75 oz.	needed. Apply in late summer to early fall. As the leafhoppers	
		(2 lbs. per acre)	begin to appear. A repeat application at a 7-day interval may be necessary.	

PLANTS	INSECTS	AMOUNT OF	APPLICATION	APPLICATION INSTRUCTIONS
		ACENTHRIN	TIMING	
		INSECTICIDE		
		PER 1000 SO.		
		FT.		
	Mole Crickets (except CA.) Spittlebug (except CA.)	PER 1000 SQ. FT. 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)	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 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. 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.

COMMERCIAL TURFGRASS	GOLF COURSES AND SOD FARMS ONLY	(continued)
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	1		Î.	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			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.
		mound.		

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.
- Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).

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 Popular or *Viburnum suspensum* and Crabapple varieties - Ichonoski, *Malus fioribunda*, Pink Perfection, Red Wine and Snow Cloud.

Plants: Bletchum gibbum, Cissus Antarctica, Ficus triangularis, Fittonia verschaffeltii, 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.

SMALL VOLUME SPRAY EQUIPMENT (for use in T&O only)					
PREPARATION OF ACEN	THRIN INSECTICIDE SPRAY N	MIX USING A 16 OUNCE			
LABEL DIRECTION PER ACRE IN 100 GALLONS OF WATER	EQUIVALENT PER ACRE IN 25 GALLONS OF WATER	EQUIVALENT PER ACRE IN 1 GALLON OF WATER (TEASPOONS/GALLON)			
0.5 lb.	2 oz.	2/3 tsp.			
1 lb.	4 oz.	1 1/3 tsp.			
1.5 lbs.	6 oz.	2 tsp.			
2 lbs.	8 oz.	2 2/3 tsp.			

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
	Citrus Blackfly *	1.25 to 1.75 lbs. (20 to28 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.	depend upon spray coverage and the amount of moisture following application.
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 *	Drench Method: 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.

	Nursery Fields of 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 Baar	Aphid, Leafhoppers, Leafminers, San Jose Scale (Crawlers), Mealybugs, Japanese Beetle, Stink Bugs, Plant Bugs (Lygus), Whiteflies,	1.25 to 2.5 lbs. (20 to 40 oz.)	Apply as needed for control of existing populations.	Apply ACENTHRIN INSECTICIDE in 50 to 200 gallons of water per acre by ground.		
Pear Pistachio Plum Prune Walnut	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 [*]	Drench Method: 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.		

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

[* 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.) 1.75 lbs. (28 oz.)	Make application 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 ACENTHRIN INSECTICIDE per 100 gallons of solution so as to thoroughly drench the root system.
	(excluding Fire, Harvester, Carpenter, and Pharaoh ants)	(28 oz.)	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 Douglas Fir Tussock Moth Larvae, Gypsy Moth	1.0 to 1.5 lb. (16 to 24 oz.) 1.5 lb. (24 oz.)	Make application as the insects begin to appear. Make application as the insects begin to appear.	Apply the specified amount of Acenthrin in 100 gallons of water with a hydraulic sprayer. The addition of a suitable sticker improves control of Gypsy Moth larvae. Mist blower application: Adjust rates to 2 lbs. per 100 gallons of water for Gypsy
	Larvae [*], Webworms Scales (Crawlers)	1.25 lb. (20 oz.)	Make application as the crawlers begin to appear.	Moth. Moth control and 1.5 lbs per 100 gallons of water for Tent Caterpillar control.
			Repeat applications, at a 2-week or more interval, may be necessary where there is continuous crawler production.	UPL NA, 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. Nursery crops: 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 Acenthrin in 100 gallons of water with a hydraulic sprayer as a full coverage spray.

[* Not registered in California for control of Gypsy Moth Larvae.]

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 to 1.5 lb. (12 to 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.

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</i> <i>floribunda</i>, Pink Perfection, Red Wine and Snow Clou.
Crepe Myrtle	Aphid	5 to 7 level tbsp. (1.5 to 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). Do not pour or dispose down-the-drain or sewer. Call your local solid waste agency for local disposal options.

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. 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 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 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. Turn the container over onto its other 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. 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 other procedures allowed by state and local authorities.

[Optional container handling for bags]

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill. 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.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA, Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA, Inc. and Seller harmless for any claims relating to such factors.

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