

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Ms. Jill Holihan FMC Corporation 1735 Market Street Philadelphia, PA 19103

DEC - 2 2010

Dear Ms. Holihan:

Subject: Amendment: Add Sugar Beets Zeta-Cype 0.8 EC Insecticide

EPA Reg. No. 279-3327 Your submission dated September 10, 2010

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) section 3(c)(7)(a), is acceptable provided the following revision is made prior to release for shipment under the amended labeling:

 On page 27 in the new directions for use on Sugar Beets, in the first note under the specific directions for use revise "including at plant plus foliar applications of Zeta-Cype 0.8 EW" to read "including at plant plus foliar applications of Zeta-Cype 0.8 EC".

A stamped copy of the label is enclosed for your records. Please submit two copies of the revised amended labeling prior to release for shipment.

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

If you have any questions regarding this letter, please contact Dana Pilitt, PhD of my staff at (703) 305-7071 or via e-mail at <a href="mailto:pilitt.dana@epa.gov">pilitt.dana@epa.gov</a>.

Sincerely LebL

Richard Gebken Product Manager 10 Insecticide Branch

Registration Division (7505P)

## ESTRICTED USE PES ICIDE

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 those uses covered by the certified applicator's certification.

# **Zeta-Cype** 0.8EC Insecticide

EPA Reg. No. 279-3327

EPA Est. 279-FL-1

Active Ingredient:	By Wt.
* S-Cyano (3-phenoxyphenyl)methyl	
(+) cis/trans 3-(2,2-dichloroethenyl)-	
2,2 dimethylcyclopropane carboxylate**	9.6%
Inert Ingredients***	90.4%
	100.0%

\* Contains 0.8 pounds active ingredient per gallon.

\*\* Cis/trans ratio: Max. 75% (±) cis and min. 25% (±) trans

\*\*\* Contains Petroleum Distillates

U.S. Patent No. Pending

## KEEP OUT OF REACH OF CHILDREN CAUTION

#### FIRST AID

**IF SWALLOWED:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Note to Physician

Contains petroleum distillates - vomiting may cause aspiration pneumonia. Vomiting should be supervised by a physician or the professional staff because of the possible pulmonary damages by aspiration of the solvent.

For Emergency Assistance Call (800) 331-3148. See other panels for additional precautionary information.

**FMC** Corporation Agricultural Products Group 1735 Market Street Philadelphia PA 19103

ACCEPTED with COMMENTS In EPA Letter Dated:

DEC - 2 2010

Under the Federal Insecticide. Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 279-3327

### **HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

# PRECAUTIONARY STATEMENTS Hazards to Humans (and Domestic Animals)

Caution

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

**Personal Protective Equipment:** 

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS. Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate, and shoes plus socks.

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate, shoes plus socks, and protective eyewear.

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

## **User Safety Recommendations**

Users should:

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

## **Environmental Hazards**

This pesticide is extremely toxic to fish, aquatic invertebrates, oysters and shrimp. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.

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

#### Physical/Chemical Hazards

Do not use or store near heat or open flame.

# E ECTIONS FOR USE RESTRICTED USE PESTICIDE

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

Resistance. Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

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 12 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, such as Barrier Laminate or Viton, and shoes plus socks.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed, or other pesticides or fertilizers by storage and disposal.

**Pesticide Storage** 

Do not freeze. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and Spills): (800) 424-9300.

To confine spill: Dike surrounding area or absorb with sand, cat litter, or commercial clay. Place damaged package in a holding container.

Identify contents.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling

#### Nonrefillable Container.

Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows:

For containers equal to 5 gallons or less: 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.

For containers greater than 5 gallons: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten ciosures. 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.

Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### Refillable/Returnable 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 mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## migation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Zeta-Cype 0.8EC insecticide should be applied continuously for the duration of the water application. Zeta-Cype 0.8EC should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the target pest. Agitation is not required when a suitable diluent is used.

#### **BUFFER ZONES**

#### **Vegetative Buffer Zones**

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing zeta-cypermethrin onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21pp. http://www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf.

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast) – Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

Buffer Zone for ULV Aerial Application - Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

**Buffer Zone for Non-ULV Aerial Application** – Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

Spray Drift Requirements
Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph. Temperature Inversion

Do not make aerial or ground applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of the inversion in humid areas. of an inversion by producing smoke and observing a smoke layer near the ground surface.

**Droplet Size** Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

**Additional Requirements for Ground Applications** 

Wind speed must be adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

**Additional Requirements for Aerial Applications** 

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor votices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

#### GENERAL INSTRUCTIONS

Use low rate under light to moderate infestation. Higher rates should be used under heavy insect pressure. The rate of application is variable according to insect pressure, timing of spray and field scouting. Do not exceed maximum allowable rate.

#### **Preventive Use**

For cutworm, armyworm, or stalk borer control, Zeta-Cype 0.8EC insecticide may be applied before, during, or after planting. For soilincorporated applications, use higher rates for improved control. Do not exceed maximum allowable rate.

**Rotational Crops** 

With the exception of the crops listed below, rotational crops should not be planted within 30 days of last application.

#### Tank-Mixture

Zeta-Cype 0.8EC Insecticide may be applied in tank mixtures with other products approved for use on Alfalfa and Nongrass Animal Feeds; Berries; Brassica Vegetables; Bulb Vegetables; Canola (Rapeseed); Corn; Cotton; Cucurbit Vegetables; Fruiting Vegetables; Grapes; Grass Forage, Fodder and Hay and Grass Grown for Seed; Leafy Vegetables; Legume Vegetables; Peanut; Pome Fruits; Rice; Root and Tuber Vegetables; Sorghum; Soybeans; Stone Fruits; Sugar Rests Currences Surfavor Trace National Meson. Beets, Sugarcane; Sunflower; Tree Nuts; and Wheat. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

M um Usage When Applying Both Zeta-Cyper rin and Cypermethrin Products to the Same Crop Within the Same Season.

Do not apply more than the maximum seasonal total for either product when used alone, and do not apply more than the combined maximum seasonal total for both products as outlined in the table below.

Сгор	Maximum Seasonal Total (Ibs ai/acre)				Maximum Seasonal Total ((lbs ai/acre) When Applying Cypermethrin and Zeta- Cypermethrin Products to the Same Crop	Maximum Seasonal Total (lbs ai/acre) When Applying Zeta- cypermethrin Products to the Same Crop
		a-cypermethr		Cypermethrin**	Zeta- cypermethrin* plus Cypermethrin **	Zeta- cypermethrin*
Mo	Mustang	Z-Cype	HERO			
Cotton	0.3	0.15	0.1125	0.6	0.6	0.3
Field Corn	0.2	0.10	0.10	NA	NA	0.2
Sweet Corn	0.3	0.15	0.0675	NA	NA	0.3
Eggplant	0.3	0.15	0.0675	NA	NA	0.3
Pepper (Bell & Non-Bell)	0.3	0.15	0.0675	NA	NA	0.3
Tomato	0.3	0.15	0.105	NA	NA	0.3
Head Lettuce	0.3	0.15	0.1125	0.6	0.6	0.3
Head and Stem Brassica	0.3	0.15	0.1125	0.6	0.6	0.3
Succulent Peas and Beans	0.3	0.15	0.0675	NA	NA	0.3
Pecans	0.3	0.15	0.1125	0.6	0.6	0.3

<sup>\*</sup> Mustang or Fury (1.5 EW or 1.5 EC); Z-Cype (0.8 EC or 0.8 EW); HERO; or any zeta-cypermethrin product approved for crop use,

\* Any cypermethrin product approved for crop use including Ammo<sup>to</sup>.

NA = Not Applicable.

# Magnitum Seasonal Usage and PHI (Pre-Harvest Interval) for Zeta-Cype 0.8EC Labeled Crops

Crop	Maximum Seasonal Total/Acre for Zeta-Cype 0.8 EC		PHI (days)		
	Lbs Al	Floz			
Alfalfa and Nongrass	0.025/cutting	4.0			
Animal Feeds (Forage, Fodder, Straw and Hay) Group	0.075/season	12.0	3 (cutting or grazing) 7 (harvesting seed)		
Berries	0.15	24.0	1		
Brassica Vegetables	0.15	24.0	1		
Bulb Vegetables	0.125	20.0	7		
Citrus	0.1	16.0	1		
Corn, sweet	0.15	24.0	3		
Corn, field, seed, pop	0.10	16.0	30 (grain & stover) 60 (forage)		
Cotton	0.15	24.0	14		
Cucurbit Vegetables	0.15	24.0	1		
Fruiting Vegetables	0.15	24.0	1		
Grapes	0.15	24.0	1		
Grass Forage, Fodder, and Hay	0.025/cutting	4.0			
Group and Grass Grown for Seed	Hay 0.10/season	16.0	0 (Forage and Hay)		
	Forage, Straw & Seed Screenings 0.125/season	20.0	7 (Straw and Seed Screenings)		
Leafy Vegetables	0.15	24.0	1		
Legume Vegetables	0.15	24.0	1 (succulent shelled or edible-podded) 21 (dried shelled)		
Oilseed Commodities:					
Canola (Rapeseed)	0.15	24.0	7		
Safflower	0.075	12.0	14		
Sunflower	0.125	20.0	30		
Peanut	0.15	24.0	7		
Pome Fruits	0.15	24.0	14		
Rice and Wild Rice	0.10	16.0	14		
Root and Tuber   Vegetables (except Sugar Beet)	0.15	24.0	1		
Sod Farms	0.125/season	20.0	0		
Sorghum	0.125	20.0	14 (grain & fodder (stover)) 45 (forage (silage))		
Soybeans	0.15	24.0	21		
Stone Fruits	0.15	24.0	14		
Sugar Beets	0.075	12.0	50		
Sugarcane	0.10	16.0	21		
Tree Nuts	0.125	20.0	7		
Wheat	0.125	20.0	14		

The REI (Restricted Entry Interval) is 12 hours for all labeled crops. Refer to the crop specific use directions for detailed information on application timing and any use restrictions.

10/52

N ass Animal Feeds (Forage, Fodder, Straw and j) Group intruding: Alfalfa; Alfalfa grown for seed (Includes luceme, sainfoin, holy clover, esparcet, birdsfoot trefoil and varieties and/or hybrids of these); Velvet Bean; Clover; Kudzu; Lespedeza; Lupin; Sainfoin; Trefoil; Vetch; Crown Vetch; and Milk Vetch.

Insects Controlled	Rate of Application	Method of Application
Alfalfa Caterpillar Alfalfa Looper Alfalfa Weevil Cutworms Egyptian Alfalfa (larvae & adult) Flea Beetles Green Cloverworm Hornworms Meadow Spittlebug Potato Leafhopper Velvetbean Caterpillar Webworms	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply as insects appear in sufficient volume of water to ensure thorough coverage of foliage. Use higher recommended dosage for increased pest pressure or for increased residual pest control. Do not exceed maximum allowable rate.
Blue Alfalfa Aphid <sup>1</sup> Green Peach Aphid <sup>1</sup> Pea Aphid <sup>1</sup> Spotted Alfalfa Aphid <sup>1</sup> Threecornered Alfalfa Hopper		Apply in a minimum of 2 gallons of finished spray per acre by aerial equipment or 10 gallons per acre by ground equipment. ULV oil spray
Armyworms Grasshoppers Plant Bugs (including Lygus spp. & Stink Bugs)	2.8 to 4.0 ounces (0.0175 to 0.025 pound active) per acre	application is prohibited. Higher volumes of finished spray may improve insect control under high temperatures, when foliage is dense and/or when insect pressure is high.

Do not make applications less than 7 days apart.

A maximum of 4 ounces of product or 0.025 pounds active ingredient/acre may be applied per cutting and a maximum of 12 ounces of product or 0.075 pounds of active ingredient per acre per season.

Applications may be made up to 3 days of cutting or grazing or up to 7 days of harvesting seed.

<sup>1</sup>Aphid control may be variable depending on species present and host-plant relationships.

Berries Crop Group (1 Day PHI) including: blackberry; loganberry, red and black raspberry; blueberry, highbush and lowbush; currant; elderberry; gooseberry; huckleberry; and cultivars and/or hybrids of these.

Insects Controlled	Rate of Application	Method of Application
Leafrollers Orange Tortrix Root Weevils	4.0 ounces (0.025 pounds active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.
		Apply by ground and air equipment using sufficient water to obtain full coverage of foliage (minimum of 20 gallons by ground and 2 gallons by air).

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Do not make applications less than seven days apart.

H and Stem Brassica Vegetables (1 day phi sluding: Brussels Sprouts; Cauliflower; Cavalo broccolo; Kohlrabi; Cabbage; Chinese Cabbage (napa); Chinese Mustard Cabbage (gai

Leafy Brassica Greens (1 day phi) including: Broccoli Raab (rapini); Chinese cabbage (bok choy); Collards; Kale; Mizuna; Mustard Greens; Mustard Spinach; Rape Greens; and Turnip Greens.

Insects Controlled	Rate of Application	Method of Application
Corn Earworm Cucumber Beetles Cutworm Diamondback Moth <sup>1</sup> Flea Beetles Imported Cabbageworm Leafhoppers Saltmarsh Caterpillar	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air.
Southern Cabbageworm Tobacco Budworm¹ Alfalfa Looper Armyworms Cabbage Looper Cabbage Webworm Crickets	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	Lower rates of Zeta-Cype 0.8EC should be used under light to moderate insect pressure. Higher rates should be used to control heavy to extremely heavy insect populations.
Grasshoppers Ground Beetles Leafminers (adults) Lygus Bugs Onion Thrips Stinkbugs Wireworm (adults) Aphids <sup>2</sup> Whiteflies <sup>3</sup>		In areas where arid climatic conditions persist, such as California and Arizona, higher than minimum recommended rates may be required.

Do not make applications less than 7 days apart.

A maximum of 24 ounces of product or 0.15 pounds of active ingredient may be applied per acre per season.

<sup>1</sup> See resistance statement under "Directions for Use" section.

Bulb Vegetables (Allium spp.) (7 day phi) including: Garlic; Garlic, Great-Headed (elephant); Green Eschalots; Japanese Bunching Onions; Leeks; Onion, Dry Bulb and Green; Onion, Welch; Shallots, Dry Bulb and Green; Spring Onion or Scallions

Insects Controlled	Rate of Application	Method of Application
Armyworms Cutworms Leafminers (adults) Onion Maggot Adults Stink Bugs Aphids <sup>1</sup>	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply in a minimum of 20 gallons per acre with ground equipment or in a minimum of 3 gallons per acre by aircraft. Begin applications when pests
Onion Thrips	2.88 to 4.0 ounces (0.018 to 0.025 pound active) per acre	appear and repeat as necessary to maintain control.  To control Onion Thrips: Use higher rates as population increases and avoid rescue situations. Use of a crop oil concentrate at 16 fluid ounces per acre is recommended. Do not exceed maximum allowable rate.

Do not make applications less than 7 days apart.
Do not apply more than 20 ounces of product or 0.125 pound of active ingredient per acre per season.

Do not graze livestock in treated areas or cut treated crops for feed.

Aphid control may be variable depending on species present and host-plant

<sup>&</sup>lt;sup>2</sup>Aphid control may be variable depending on species present and host-plant relationships.

<sup>3</sup> Aids in control

C Fruits Crop Group (1 Day PHI) including: Calar n (Citrus min., Citrofortunella mitis); Citrus citron (Citrus medica); Citrus hybrids (Citrus spp.) (includes chironja, tangelo, tangor); Grapefruit (Citrus paradisi); Kumquat (Fortunella spp.); Lemon (Citrus jambhiri, Citrus limon); Lime (Citrus aurantiifolia); Mandarin (tangerine) (Citrus reticulata); Orange, sour (Citrus aurantium); Orange, sweet (Citrus sinensis); Pummelo (Citrus grandis, Citrus maxima); and Satsuma mandarin (Citrus unshiri) mandarin (Citrus unshiu).

Insects	Rate of	Method of
Controlled	Application	Application
Asian Cockroach Beet Armyworm Blue-Green Citrus Root Weevils Cutworms Diaprepes Root Weevil Fire Ants Fuller Rose Beetle Glassy-Winged Sharpshooter Grasshopper Katydid Leafhoppers Leafminers* Little Leaf Notcher Loopers Orange Tortrix Orangedog Caterpillars Plantbugs Psyllids Thrips Whiteflies	4.0 ounces ( 0.025 pound active) per acre	Apply by ground equipment using sufficient water to obtain ful coverage of foliage in a minimum of 20 gallons for concentrate spray or a minimum of 100 gallons for dilute spray. Apply by air in a minimum of 10 gallons per acre.  Begin applications when pest activity is noted.

Do not make applications less than fourteen days apart.

#### Corn, Sweet (3 day phi)

Insects Controlled	Rate of Application	Method of Application
Chinch Bug Corn Rootworm (Adult) Corn Silkfly Cutworms Flea Beetle Leafhoppers Japanese Beetle (Adult) Sap Beetle (adults) Tarnished Plant Bug	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply with ground or air equipment using sufficient water and application methods to insure thorough coverage of foliage. Apply in water using a minimum of 20 gallons of finished spray per acre with ground equipment and a minimum of 2 gallons per acre by air.
Armyworms Corn Borers Corn Earworm Grasshoppers Aphids'	2.8 to 4.0 ounces (0.0175 to 0.025 pound active) per acre	

Apply at minimum 3 to 5 day intervals or as needed for control.

A maximum of 24 ounces of product or 0.15 pounds of active ingredient per acre per season may be applied.

Do not apply within 3 days of harvest of ears or forage or livestock grazing. 

Aphid control may be variable depending on species present and host-plant

13

Insects Controlled	Rate of Applicat			Metho Applica	
Cutworms		0.001 ctive)	or Table	r-band trea ninimum 4'	
Row Spacings (inches)		40	The A	30	20
Zeta-Cype 0.8EC (pounds	ai per acre)	0.0	12	0.018	0.024
Zeta-Cype 0.8EC (formulate	ed ounces per	acre) 3.84	4	1.92	2.88

Do not apply more than 16 ounces of product or 0.10 pound of active ingredient per acre per season including at-plant plus foliar applications of Zeta-Cype 0.8EC.

Do not apply within 30 days of harvest for grain and stover and 60 days for forage.

Insects Controlled	Rate of Application	Method of Application
Cutworms	1.28 to 2.8 ounces (0.008 to 0.0175 pound active) per acre	Make applications when insect populations reach economic thresholds. Refer to local Cooperative
Corn Earworm¹ Green Cloverworm Meadow Spittlebug Western Bean Cutworm1	1.76 to 4.0 ounces (0.011 to 0.025 pound active) per acre	Extension Pest Management Guidelines and/or scouting results. Do not exceed maximum allowable rate
Bean Leaf Beetle Cereal Leaf Beetle Corn Borer, European Corn Borer, Southwestern Corn Rootworm Beetle Flea Beetle Grasshoppers Hop Vine Borer Hornworms Japanese Beetle (adult) Sap Beetle (adult) Southern Corn Leaf Beetle Stalk Borer Stink Bug Spp. Tobacco Budworm² Webworms Aphids³	2.72 to 4.0 ounces (0.017 to 0.025 pound active) per acre	Apply by air or by ground equipment using sufficient water to obtain full coverage of foliage (minimum of 2 gallons per acre by air and 10 gallons per acre by ground).  For chinch bug control, scout corn fields and make applications when bugs migrate from small grains or wild grasses to small corn. Direct spray to the base of plant. Repeat applications at 3 to 5 day intervals if needed. Zeta-Cype 0.8EC may only suppress heavy infestations and/or
Armyworms (including Fall Armyworms) Chinch Bug	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	subsequent migrations.

Do not apply more than 16 ounces of product or 0.10 pound of active ingredient per acre per season including At-Planting plus foliar applications of Zeta-Cype 0.8EC Insecticide.

Do not apply within 30 days of harvest for grain and stover and 60 days for forage.

<sup>&</sup>lt;sup>1</sup> For control before the larva bores into the plant stalk or ear.

<sup>2</sup> See resistance statement under "Directions for Use" section.

<sup>3</sup> Control may be variable depending on species present and host-plant relationships.

Insects Controlled	Rate of Application	Method of Application
Preemergent Use: Cutworms	1.28 to 1.92 ounces (0.008 to 0.012 pound active) per acre	Use Zeta-Cype 0.8EC in the time period from 14 days prior to planting up to emergence of the crop. Apply as a broadcast spray by ground or air, banded (including T-band) or infurrow spray using sufficient spray volume to achieve adequate coverage. Reduced volumes of water may be used with specialized equipment. Use the higher rates of Zeta-Cype 0.8EC when incorporating into the soil.
Cutworms Tobacco Thrips Soybean (banded) Thrips  Armyworm, Fall	1.28 to 1.92 ounces (0.008 to 0.012 pound active) per acre 2.64 to 3.6	Zeta-Cype 0.8EC may be applied in water or refined vegetable oil. When water is used, apply a minimum of one gallon of finished spray per acre by air or
Armyworm, Yellow Striped Boll Weevil Cabbage Looper Corn Borer, European Cotton Bollworm Cotton Fleahopper Cotton Leaf Perforator Pink Bollworm Saltmarsh Caterpillar Stink Bugs Tarnished Plant Bug Other Plant Bugs Tobacco Budworm	ounces (0.0165 to 0.0225 pound active) per acre	five gallons of finished spray with ground equipment. When applying in water by air, one quart of emulsified oil may be substituted for one quart of water in the finished spray. When using oil, use a minimum of one quart per acre in the finished spray. Control of lepidopteran eggs may be achieved with proper timing of applications.
Armyworm, Beet <sup>2</sup> Cotton Aphid <sup>3</sup> Lygus Bugs Whiteflies <sup>4</sup>	2.8 to 4.0 ounces (0.0175 to 0.025 pound active) per acre	For boll weevil control, apply Zeta-Cype 0.8EC at a 3 to 4 day interval until pest numbers are reduced
Grasshoppers	3.0 to 4.0 ounces (0.01875 to 0.025 pound active) per acre	to acceptable levels.  For control of grasshoppers, applications should be made based on careful field scouting. Treatment decisions should be made based on evidence of feeding damage and prescence of grasshoppers in cotton. Loss of cotyledon leaves in seedling cotton should be considered more important than leaf loss in older cotton. Applications should be made on a broadcast basis since grasshopper are highly mobile.  Adjust rates based on populations of grasshopper found in fields. Applications should be made on a three to five day schedule until grasshopper populations are under control or until foliage loss subsides. Increase application rates as grasshopper size and population density increases.

A maximum of 24 ounces of product or 0.15 pounds of active ingredient may be applied per acre per season.

Do not graze or feed cotton for feet.

Do not graze or feed cotton for forage.

<sup>&</sup>lt;sup>1</sup> See resistance statement under "Directions for Use" section.

 $<sup>^{\</sup>rm 2}$  For control of beet armyworms only in the high plains of Texas, Arizona, and California.

 $<sup>^{\</sup>rm 3}$  Aphid control may be variable depending on species present and host-plant relationships.

<sup>&</sup>lt;sup>4</sup> Aids in control.

of Pleasure, Hare's-Ear Mustard, Lesquerella, Lunaria, Meadowfoam, Milkweed, Mustard, Oil Radish, Poppy Seed, Sesame, and Sweet Rocket (7 Day PHI).

1	6
3	2

Aphids Cutworms Diamondback Moth Loopers Lepidopterous Larvae Flea Beetle Fleahoppers Grasshopper Plant Bug Stink Bugs Schedpod Weevil Thrips Whitefly Armyworms  4.0 ounces (0.025 pounds active) per acre (0.025 pounds are required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.  Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).	Insects	Rate of	Method of
	Controlled	Application	Application
(B. 1882년 2월 1882년 1882년 18일 - 1922년 1	Cutworms Diamondback Moth Loopers Lepidopterous Larvae Flea Beetle Fleahoppers Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly	(0.025 pounds	scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.  Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Do not make applications less than seven days apart.

Cucurbit Vegetables Group (1 day PHI) including: Chayote (fruit); Chinese Waxgourd (Chinese Preserving Melon); Citron Melon; Cucumber; Gherkin; Gourd (edible) (including hyotan, cucuzza, hechima, Chinese orkra); Mormordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); Pumpkin; Summer Squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Winter Squash (includes butternut squash, calabaza, hubbard squash, acorn squash, and spaghetti squash); Watermelon (includes hybrids and varieties).

Insects Controlled	Rate of Application	Method of Application
Cutworm spp.	1.28 to 4.0 ounces (0.008 to 0.025 pounds active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not
Cabbage Looper Cucumber Beetle spp. (adult) Leafhopper spp. Melonworm Pickleworm Rindworm Squash Bug Squash Vine Borer	2.8 to 4.0 ounces (0.0175 to 0.025 pounds active) per acre	Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).
Aphid spp. 1,2 Armyworm, Beet 1,2 Corn Earworm Leafminer Plant Bug spp. Stinkbug spp.	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	Do not make applications less than 7 days apart.

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Aids in control.

See resistance statement under "Directions For Use" section.

ng Vegetables (except Cucurbits) (1 day photologic Egyplant; groundcherry (Physalis spp.); okra; pepino (Melon pear); pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); tomatillo; tomato.

1	7
3	2

Insects Controlled	Rate of Application	Method of Application
Armyworm, Southern Armyworm, True Armyworm, Yellow-striped Celery Leaf Tier Colorado Potato Beetle Corn Borer, European Corn Borer, Southwestern Corn Earworm Cucumber Beetle Cutworm spp. Flea Beetle Garden Webworm Green Stink Bug Hornworms Leafminers (adults) Leafhopper spp. Meadow Spittlebug Pepper Maggot (adults) Pepper Weevil Plant Bug spp. Tobacco Budworm² Tomato Fruitworm Tomato Pinworm	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Do not exceed maximum allowable rate. Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).
Aphid spp. <sup>2, 3</sup> Armyworm, Beet <sup>2</sup> Armyworm, Fall Cabbage Looper Grasshoppers Lygus Bugs Brown Stink Bug Tomato Psyllid Thrips spp. <sup>1, 2</sup> Whitefly spp. <sup>1, 2</sup>	3.2 to 4.0 ounces (0.020 to 0.025 pound active) per acre	

Do not make applications less than 7 days apart.

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Aids in control

<sup>2</sup> See resistance statement under "Directions for Use" section.

<sup>3</sup> Aphid control may be variable depending on species present and host-plant relationships.

Grape (1 Day PHI).

Insects Controlled	Rate of Application	Method of Application
Asian Lady Bird Beetle Lady Bird Beetle Cutworm species	2.0 to 4.0 ounces (0.0125 to 0.025 pound active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper Grape Berry Moth Japanese Beetle (adult)	4.0 ounces (0.025 pounds active) per acre	Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Do not make applications less than seven days apart.

Forage, Fodder, and Hay Group and Grass Grand For Seed and Pasture and Rangeland (0 day PHI for forge and hay; 7 day PHI for straw and seed screenings) including: bahiagrass, barnyardgrass, bentgrass, Bermudagrass, Kentucky bluegrass, big bluestem, smooth bromegrass, buffalograss, reed canarygrass, centipedegrass, crabgrass, cupgrass, dallisgrass, sand dropseed, Kentucky fescue, meadow foxtail, eastern gramagrass, side-oats grama, guinea grass, lovegrass, papiergrass, paterrass Indian grass, Johnsongrass, lovegrass, napiergrass, oatgrass, orchardgrass, pangolagrass, paspalum, redtop, Italian ryegrass, St. Augustine grass, sprangletop, squirreltailgrass, stargrass, switchgrass, timothy, crested wheatgrass, wildrye grass and zoysia grass. Also included are sudangrass and sorghum forages and their hybrids.

Insects Controlled	Rate of Application	Method of Application
Alfalfa Caterpillar Alfalfa Looper Alfalfa Weevil Cutworms Egyptian Alfalfa Weevil (larvae & adult) Flea Beetles Green Cloverworm Hornworms Meadow Spittlebug Potato Leafhopper Velvetbean Caterpillar Webworms Blue Alfalfa Aphid Green Peach Aphid Pea Aphid Pea Aphid Spotted Alfalfa Aphid Threecornered Alfalfa Hopper	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply as insects appear in sufficient volume of water to ensure thorough coverage of foliage. Use higher recommended dosage for increased pespressure or for increased residual pest control. Do not exceed maximum allowable rate.  Apply in a minimum of 2 gallons of finished spray per acre by aerial equipment or 10 gallons per acre by ground equipment.  ULV oil spray application is prohibited. Higher volumes of finished spray may improve insect control under high temperatures, when foliage is dense and/or wher insect pressure is high.
Armyworms Cereal Leaf Beetle Chinch Bug- Grass Mealybug Grasshoppers Plant Bugs (including Lygus spp. & Stink Bugs)	2.8 to 4.0 ounces (0.0175 to 0.025 pound active) per acre	

Do not make applications less than 7 days apart for forage and hay; not less than 17 days for straw and seed screenings.

Do not spray livestock. Allow application to dry before letting livestock graze

A maximum of 4 ounces of product or 0.025 pounds of active ingredient per acre may be applied per cutting.

For hay, a maximum of 16 ounces of product or 0.10 pounds of active ingredient per acre per season may be applied.

For forage, straw, and seed screenings, a maximum of 20 ounces of product or 0.125 pounds active ingredient per acre per season may be applied.

Applications may be made up to 0 days for forage and hay; 7 days for straw and seed screenings.

<sup>&</sup>lt;sup>1</sup> Aphid control may be variable depending on species present and host-plant relationships.

Le legetables (except Brassica) (1 day PHI): Am h (leafy amananth, Chinese spinach, tampala); Arugula (Roquette), Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum, edible-leaved and garland; Cilantro (not for use on cilantro grown for seed or coriander); Corn salad; Cress, garden; Cress, upland (yellow rocket, winter cress); Dandelion; Dock (sorrel); Endive (escarole); Fennel, Florence (finochio); Lettuce, head and leaf; Orach; Parsley; Purslane, garden; Purslane, winter; Radicchio (red chicory); Rhubarb; Spinach (including New Zealand and vine, Malabar spinach, Indian spinach); Swiss chard.

Insects Controlled	Rate of Application	Method of Application
Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply in water as necessary for insect control using a minimum of 10 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air.
Leafhoppers Saltmarsh Caterpillar Tobacco Budworm <sup>2</sup> Aphid spp. <sup>2,3</sup> Whitefly spp. <sup>1,2</sup>		Lower rates of Zeta-Cype should be used under light to moderate insect pressure. Higher rates should be used to control heavy to
Armyworms Ground Beetles Crickets Loopers Lygus Bugs Onion Thrips Stink Bugs Wireworm (adults)	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	

Do not make applications less than 7 days apart.

A maximum of 24 ounces of product or 0.15 pound active ingredient may be applied per acre per season.

Aids in control

2 See resistance statement under "Directions For Use" section

3 Aphid control may be variable depending on species present and host-plant relationships.

### ne Vegetables

Legume Vegetables - Dried (Except Soybeans) (At-plant Application)

#### Dried Shelled Pea and Bean (except Soybean)

Dried Cultivars of bean (Lupinus spp.) includes Grain Lupin, Sweet Lupin, White Lupin, and White Sweet Lupin; Phaseolus spp. Includes Field Bean, Kidney Bean, Lima Bean (dry), Navy Bean, Pinto Bean, Tepary Bean; Bean (Vigna spp.) includes Adzuki Bean, Blackeyed Pea, Catjang, Cowpea, Crowder Pea, Moth Bean, Mung Bean, Rice Bean, Southern Pea, Urd Bean; Broad Bean (dry); Chickpea; Guar; Lablab Bean; Lentil; Pea (Pisum spp.) includes Field Pea; Pigeon Pea.

Insects	Rate of	Method of
Controlled	Application	Application
Cutworm spp. White grub Wireworm spp.	4.0 fl oz/A (0.025 lbs ai/A)	For Cutworm spp: Apply at planting on the soil surface in a 5 – 7 inch band in a minimum of 2 – 7 gallons per acre or broadcast in a minimum of 10 gallons per acre.  For White grubs and Wireworms: Apply infurrow or in a 3 – 4 inch T-Band (band over the open furrow) at planting in a minimum of 2 – 7 gallons per acre.

PHI: Do not apply within 21 days of harvest for dried shelled peas or beans.

Maximum Amount per Application: Do not apply more than 4.0 ounces of product or 0.025 pounds of active ingredient per acre.

Maximum Amount per Season: Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season including atplant plus foliar applications.

Row spacing (inches)	Fl oz/ 1000 linear feet	Lbs ai/ 1000 linear feet
30	0.23	0.0014
20	0.15	0.00096
15	0.115	0.0007

#### Legume Vegetables (Foliar Use)

Succulent and Dried (except Soybeans)
1 day PHI for succulent shelled or edible-podded peas or beans
21 day PHI for dried shelled peas or beans

Succulent Edible-Podded Peas, Succulent Shelled Peas and Dried Shelled Peas (Pisum spp.) including:

Dwarf Pea; Edible-pod Pea; Snow Pea; Sugar Snap Pea; Pigeon pea; English Pea; Garden Pea; Green Pea; Lentil.

Succulent Edible-Podded Beans, Succulent Shelled Beans, and

Succulent Edible-Podded Beans, Succulent Shelled Beans, and Dried Shelled Beans including:
Runner Bean; Snap Bean; Wax Bean; Asparagus Bean; Chinese Longbean; Moth Bean; Yardlong Bean; Jackbean; Soybean (immature seed); Swordbean; Lima Bean; Broad Bean (Fava Bean); Blackeyed Pea; Southern Pea; Grain Lupin; Sweet Lupin; White Lupin; White Sweet Lupin; Field Bean; Kidney Bean; Navy Bean; Pinto Bean; Tepary Bean; Adzuki Bean; Catjang; Crowder Pea; Moth Bean; Mung Bean; Rice Bean; Urd Bean; Chickpea (Garbanzo Bean): Guar: Lablab bean. Bean); Guar; Lablab bean.

Insects Controlled	Rate of Application	Method of Application
Cutworm spp. Thistle Caterpillar (Painted Lady) Saltmarsh Caterpillar Silverspotted Skipper	1.28 to 4.0 ounces (0.008 to 0.025 pound active) per acre	Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be
Alfalfa Caterpillar Armyworm, Southern Armyworm, True Armyworm, Yellow-Striped Bean Leaf Beetle Blister Beetle spp. Colorado Potato Beetle Corn Borer, European	2.72 to 4.0 ounces (0.017 to 0.025 pound active) per acre	based upon insect populations reaching locally determined economic thresholds. Do not exceed maximum allowable rate.  Apply by ground or air
Corn Borer, Southwestern Corn Earworm Corn Rootworm Beetle (adult) Cowpea Curculio Cucumber Beetle Flea Beetle		equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).
Green Cloverworm Ground Beetles Imported Cabbageworm Japanese Beetle Leaf Skeletonizer spp. Leafmopper spp. Leafminers (adults) Mexican Bean Beetle Pea Weevil		
Pea Leaf Weevil Plant Bug spp. Potato Leafhopper Seedcorn Beetle Seedcorn Maggot (adult) Spittlebug Three-Cornered Alfalfa Hopper		
Tobacco Budworm <sup>2</sup> Velvetbean Caterpillar Webworm spp. Woolly Bear Caterpillar		
Aphid spp. <sup>2,3</sup> Armyworm, Beet <sup>2</sup> Armyworm, Fall Grasshoppers Lesser Cornstalk Borer <sup>1</sup> Looper spp. <sup>2</sup> Stink Bug spp. Thrips spp. <sup>1,2</sup> Whitefly spp. <sup>1,2</sup>	3.2 to 4.0 ounces (0.020 to 0.025 pound active) per acre	

Do not make applications less than 5 days apart.

Maximum Amount per Season: Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season including atplant plus foliar applications.

<sup>2</sup> See resistance statement under "Directions For Use" section

<sup>3</sup> Aphid control may be variable depending on species present and host-plant relationships.

#### Peanut (7 day PHI)

Insects Controlled	Rate of Application	Method of Application
Cutworm spp. Green Cloverworm Velvetbean Caterpillar Red-necked Peanut Worm	1.28 to 4.0 ounces (0.008 to 0.025 pounds active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.  Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).  Do not make applications less than 14 days apart.
Bean Leaf Beetle Leafhopper spp. Southern Corn Rootworm (adult) Vegetable Weevil Whitefringed Beetle (adult)	1.76 to 4.0 ounces (0.011 to 0.025 pounds active) per acre	
Aphid spp. "12" Armyworm, Beet 1,2 Armyworm, Fall 1,2 Corn Earworm Grasshopper spp. Lesser Cornstalk Borer 1,2 Soybean Looper 1,2 Stink Bug spp. 1,2 Tobacco Thrips 2	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Do not graze livestock in treated areas. Do not use treated vines or hay for animal feed.

Aids in control.

See resistance statement under "Directions For Use" section.

# Pome Fruit Group (14 day PHI) including: Apple; Crabapple; Loquat; Mayhaw; Pear; Oriental Pear; and Quince.

Insects Controlled	Rate of Application	Method of Application
Apple Maggot Codling Moth European Apple Sawfly Green Fruitworm Japanese Beetle Lesser Appleworm Oblique Banded Leafroller	1.28 to 4.0 ounces (0.008-0.025 pounds active) per acre	Begin applications at delayed dormant through first cover as common to the production areas and the target pest species. Apply in a full season spray program.
Oriental Fruit Moth Pandemis Leafroller Pear Psylla Plum Curculio Potato Leafhopper Redbanded Leafroller Rosy Apple Aphid Spirea Aphid Spotted Tentiform		Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.
Leafminer Stink Bugs Tarnished Plant Bug Tufted Apple Bud Moth Variegated Leafroller White Apple Leafhopper		Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (for ground application use a minimum of 20 gallons for concentrate spray or a minimum of 100 gallons for dilute spray; for air application use a minimum of 10 gallons).
		Do not make applications less than 7 days apart.  Avoid applications when
		honey bees are actively foraging by applying during the early morning or evening hours.

279-3327 Sugar Beet Amendment September 10, 2010 Page 21

Insects	Rate of	Method of
Controlled  Armyworm, Fall Armyworm, True Armyworm, Yellow Striped Grasshoppers Green Bug Leafhopper Spp. Rice Water Weevil (adult) Oat Birdcherry Aphid Wild Rice Worm	Application 3.2 to 4.0 ounces (0.020 to 0.025 pound active) per acre	Apply as needed based on pest thresholds determined by scouting practices. Refer to Extension Scouting guidelines for scouting techniques, pest thresholds and treatment timing and treatment intervals. Determine the need for
Chinch Bug Rice Stink Bug	2.64 to 4.0 ounces (0.0165 to 0.025 pound active) per acre	repeat applications, usually at intervals of 7 days, by scouting. Do not exceed maximum allowable rate.  Zeta-Cype 0.8EC can be safely applied in conjunction with approved rice herbicides.  Apply by air or ground equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 5 gallons of water per acre. For increased control, crop oil concentrate at 16 fluid ounces per acre may be used.  For control of rice water weevil in dry seeded rice, make a foliar application as indicated by scouting for the presence of adults and/or feeding scars, usually within a time-frame of 0.5 days after permanent flood establishment. Do not exceed 10 days from starting permanent flood until insecticide application unless scouting indicates adult weevils are not present. Adults may also be treated at later stages of rice development to reduce overwintering populations.  For control of rice water weevil in water seeded rice, make the first application after flooding when scouting indicates the presence of adults and/or feeding scars. Application should usually begin when rice has emerged 0.5 inch above the waterline. Under conditions of prolonged migration into the field, start field scouting for rice water weevil adults and/or feeding scars 3-5 days after the initial treatment and, if needed, apply a second application within 7-10 days of the first application. Adults may also be treated at later stages of rice development to reduce overwintering populations.  Green bug is known to have many biotypes. Zeta-Cype 0.8EC may only provide suppression. If satisfactory control is not achieved with the first application of Zeta-Cype 0.8EC nay only provide suppression. If satisfactory control is not achieved with the first application of zeta-Cype 0.8EC nay only provide suppression. If satisfactory control is not achieved with the first application of zeta-Cype 0.8EC nay only provide suppression. If satisfactory control is not achieved with the first application of zeta-Cype 0.8EC nay only pr

Do not make applications less than 7 days apart.

Do not release floodwater within 7 days of an application.

A maximum of 16 ounces of product or 0.10 pound active ingredient (1.0 pints) may be applied per acre per season.

Do not use treated rice field for the aquaculture of edible fish and crustacea.

Do not apply as an ultra-low volume (ULV) spray.

<sup>1</sup> Aphid control may be variable depending on species present and host-plant relationships.

and Tuber Vegetables Group 1 (except Sugar t) (1 day F..., including: Arracacha; Arrowroot; Artichoke (Chinese and Jerusalem); Garden Beet; Edible Burdock; Edible Canna; Carrot; Cassava (Bitter and Sweet); Celeriac (Celery Root); Chayote (Root); Turnip-Rooted Chervil; Chicory; Chufa; Dasheen (Taro); Ginger; Ginseng; Horseradish; Leren; Turnip-Rooted Parsley; Parsnip; Potato; Oriental Radish (Daikon); Radish; Rutabaga; Salsify (Oyster Plant); Black Salsify; Spanish Salsify; Skirret; Sweet Potato; Tanier (Cocoyam); Turmeric; Turnip; Yam Bean; and Yam (True).

Insects Controlled	Rate of Application	Method of Application
Cutworm spp.	1.28 to 4.0 ounces (0.008 to 0.025 pounds active) per acre	Apply as required by scouting Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds levels Do not exceed maximum allowable rate.  Apply by ground or all equipment using sufficien water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).  Do not make applications less than 4 days apart.
Cabbage Looper Cucumber Beetle European Corn Borer Fleabeetle spp. Leafhopper spp. Southern Corn Rootworm (adult) Vegetable Weevil Whitefringed Beetle (adult)	1.76 to 4.0 ounces (0.011 to 0.025 pounds active) per acre	
Aphid spp. 1,2 Armyworm, Beet 1,2 Armyworm, Yellowstriped Cabbage Maggot Colorado Potato Beetle 2 Grasshopper spp. Imported Cabbageworm Potato Leafhopper Tarnished Plant Bug	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Leaves of Root and Tuber Vegetables cannot be used for food or feed.

Aids in control.

<sup>2</sup> See resistance statement under "Directions For Use" section.

#### Safflower (14 day phi)

Insects Controlled	Rate of Application	Method of Application
Cutworms	worms  4.0 ounces (0.025 pound active) per acre	Apply as needed based on pest thresholds determined by scouting practices. Refer to Extension Scouting guidelines for scouting techniques, pest thresholds and treatment timing and treatment intervals. Determine the need for repeat applications, at a minimum of 14 day intervals, by scouting. Do not exceed maximum allowable rate.
		Apply with ground or air equipment using sufficient water and application methods to insure thorough coverage of foliage. Apply in water using a minimum of 15 gallons of finished spray per acre.

25

Sou. arms (0 day PHI) including:
bahiagrass, barnyardgrass, bentgrass, Bermudagrass, Kentucky bluegrass, big bluestem, smooth bromegrass, buffalograss, reed canarygrass, centipedegrass, crabgrass, cupgrass, dallisgrass, sand dropseed, Kentucky fescue, meadow foxtail, eastern gramagrass, sideoats grama, guinea grass, Indian grass, Johnsongrass, lovegrass, napiergrass, oatgrass, orchardgrass, pangolagrass, paspalum, redtop, Italian ryegrass, St. Augustine grass, sprangletop, squirreltailgrass, stargrass, switchgrass, timothy, crested wheatgrass, wildrye grass and zoysia grass. Also included are sudangrass and sorghum forages and their hybrids.

Insects Controlled	Rate of Application	Method of Application
Alfalfa caterpillar Alfalfa looper Alfalfa weevil Ant spp. Blue alfalfa aphid² Cutworm spp. Egyptian alfalfa weevil Flea beetle spp. Green cloverworm Green peach aphid² Hornworm spp. Meadow spittlebug Pea aphid² Potato leafhopper Spotted alfalfa aphid¹ Threecornered alfalfa hopper Velvetbean caterpillar Webworm spp	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Apply as insects appear in sufficient volume of water to ensure thorough coverage of foliage.  Use higher recommended dosage for increased pest pressure or for increased residual pest control. Do not exceed maximum allowable rate.  Apply in a minimum of 2 gallons of finished spray per acre by aerial equipment or 10 gallons per acre by ground equipment.  ULV oil spray application is prohibited. Higher volumes of finished spray may improve insect control under high temperatures, when foliage is dense and/or when insect pressure is high.
Armyworm, southern Armyworm, true Armyworm, yellowstriped Cereal leaf beetle Chinch bug Grass mealybug Grasshopper spp. Plant bug spp. Stinkbug spp.	2.8 to 4.0 ounces (0.0175 to 0.025 pound active) per acre	
Armyworm, fall	3.2 – 4.0 ounces (0.02 to 0.025 pound active) per acre	ounds of active instead on the

A maximum of 4 ounces of product or 0.025 pounds of active ingredient per acre may be applied per application. A maximum of 20 ounces of product or 0.125 pounds active ingredient per acre per season may be applied.

<sup>&</sup>lt;sup>1</sup> Aphid control may be variable depending on species present and host-plant relationships.

# Sc. \_num (Grain) and Millet (14 day phi for grain and stover; 45 day phi for forage):

Insects Controlled	Rate of Application	Method of Application
Cutworm spp. Sorghum Midge	1.28 to 4.0 ounces (0.008 to 0.025 pound active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations
Armyworm, Fall Armyworm, Southern Armyworm, True Armyworm, Yellow-Striped Corn Borer, European Corn Borer, Southwestern Corn Earworm Flea Beetle spp. Hornworms Stink Bug spp.	1.76 to 4.0 ounces (0.011 to 0.025 pound active) per acre	reaching locally determined economic thresholds. Do not exceed maximum allowable rate.  Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air). The addition of one to two quarts of emulsified oil
Webworm spp. Aphid spp. <sup>2,3</sup> Armyworm, Beet <sup>3</sup> Chinch Bug False Chinch Bug Grasshopper spp. Lesser Cornstalk Borer <sup>1</sup> Thrips spp. <sup>3,4</sup> Whitefly spp. <sup>3,4</sup>	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	per acre to the spray solution may improve spray deposition and insect control.  For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 10-day intervals if needed.  For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of plants with sufficient spray volume to penetrate the soil/stem interface, leaf collars, and sheaths.

Do not make applications less than 10 days apart.

Do not apply more than 20 ounces of product or 0.125 pounds of active ingredient per acre per season.

1 For control before the larva bores into the plant stalk.

Aphid control may be variable depending on species present and host-plant relationships.
 See resistance statement under "Directions For Use" section
 Aids in Control

	1	-
-	3	

Insects Controlled	Rate of Application	Method of Application
Cutworm spp. Painted Lady (Thistle) Caterpillar Saltmarsh Caterpillar Silverspotted Skipper	1.28 to 4.0 ounces (0.008 to 0.025 pound active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally
Alfalfa Caterpillar Armyworm, Southern Armyworm, True Armyworm, Yellowstriped Bean Leaf Beetle¹ Blister Beetle spp. Colorado Potato Beetle Corn Borer, European Corn Earworm Corn Rootworm Beetle (adult) Cowpea Curculio Cucumber Beetle European Corn Borer Flea Beetle Green Cloverworm Hornworms Imported Cabbageworm Japanese Beetle Leaf Skeletonizer spp. Leafhopper spp. Leafmopper spp. Leafmopers (adults) Mexican Bean Beetle Pea Leaf Weevil Plant Bug spp. Potato Leafhopper Seedcorn Maggot (adult) Soybean Aphid Spittlebug Three-Cornered Alfalfa Hopper Tobacco Budworm² Velvetbean Caterpillar Webworm spp. Woollybear Caterpillar	2.8 to 4.0 ounces (0.0175 to 0.025 pound active) per acre	determined economic thresholds. Do not exceed maximum allowable rate. Apply with either aerial or ground equipment using sufficient spray volume to obtain full coverage of the plant and foliage. Use a minimum of 2 gallons of finished spray per acre by air or 10 gallons of finished spray per acre by ground. The addition of one to two quarts of emulsified oil per acre to the spray solution may improve spray deposition and insect control.
Armyworm, Beet Armyworm, Fall Grasshopper spp. Lesser Cornstalk Borer <sup>3</sup> Looper spp. <sup>2</sup> Stink Bug spp. Thrips spp. <sup>2,3</sup> Whitefly spp <sup>2,3</sup>	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	

Do not make applications less than 7 days apart.
Do not graze or harvest treated soybean forage, straw, or hay for livestock feed.

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

1 Use higher recommended dosage for increased pest pressure, increased residual pest control, or later-season applications. Do not exceed maximum allowable rate.

<sup>&</sup>lt;sup>2</sup> See resistance statement under "Directions For Use" section

<sup>&</sup>lt;sup>3</sup> Aids in control

Fruit Group (14 day PHI) including: Apricot; C y (Sweet ar. Fart); Nectarine; Peach; Plum (including Chickasaw Plum, Damson Plum, and Japanese Plum); Plumcot; and Prune (fresh).

2	8
3	2

Insects	Rate of	Method of
Controlled	Application	Application
American Plum Borer Black Cherry Aphid Cherry Fruit Fly Green Fruitworm Leafrollers Leafhoppers Lesser Peach Tree Borer Peach Tree Borer Peach Twig Borer Plum Curculio Oriental Fruit Moth Rose Chafer Stink Bugs Tarnished Plant Bug Tufted Apple Budmoth Western Cherry Fruit Fly	1.28-4.0 ounces (0.008-0.025 pounds active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.  Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (for ground application use a minimum of 20 gallons for concentrate spray or a minimum of 100 gallons for dilute spray; for air application use a minimum of 10 gallons so dilute spray; for air application use a minimum of 10 gallons.

Do not apply more than 24 ounces of product or 0.15 pounds of active ingredient per acre per season.

Do not apply as a ULV spray.

Do not feed or allow livestock to graze on cover crops from treated orchards.

#### Sugar Beet (50 day PHI for tops or roots)

Rate of Application	Method of Application
2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre	Make applications when insect populations reach economic threshold levels. Refer to local Cooperative Extension Pest Management Guidelines and/or scouting results.  Apply by air or by ground equipment using sufficient water to obtain full coverage of foliage (minimum of 2 gallons per acre by air and 10 gallons per acre by ground).
4.0 ounces (0.025 pound active) per acre	For light to moderate infestations only. Make a 3-4 inch T-Band (band over the open furrow) at planting in a minimum of 3-5 gallons per acre.
	Apply in-furrow or in a 3 - 4 inch T-Band (band over the open furrow) at planting in a minimum of 3-5 gallons per acre.
	Apply at planting on the soil surface in a 5-7inch band or broadcast in a minimum of 3-5 gallons per acre.
	2.24 to 4.0 ounces (0.014 to 0.025 pound active) per acre  4.0 ounces (0.025 pound active) per description of the control of t

ingredient per acre per season including at plant plus foliar applications of Zeta-Cype 0.8 EW.

Aphid control may be variable depending on species present and host-plant relationships.

Suppression only.

Jarcane (21 day phi)
Insects Rate of Application Application

Reference (21 day phi)

Insects	Rate of	Method of
Controlled	Application	Application
Sugarcane Borer Mexican Rice Borer	3.0 to 4.0 ounces (0.01875 to 0.025 pound active) per acre	Make applications when insect populations reach economic thresholds. Refer to local Cooperative Extension Pest Management Guidelines and/or scouting results. Do not exceed maximum allowable rate. Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 2 gallons per acre by air and 10 gallons per acre by ground).

Do not make applications less than 21 days apart.

Do not apply more than 16 ounces of product or 0.10 pounds of active ingredient per acre per season.

Sunflower, Castor Oil Plant, Chinese Tallowtree, Euphorbia, Evening Primrose, Jojoba, Niger Seed, Rose Hip, Stokes Aster, Tallowwood, Tea Oil Plant, and Vernonia (30 day PHI) (At-plant Application)

Insects Controlled	Rate of Application	Method of Application
Cutworm spp.	4.0 fl oz/A	For White grubs and
White Grub	(0.025 lbs ai/A)	Wireworms: Apply in-
Wireworm		furrow or in a 3 – 4 inch T-Band (band over the open furrow) at planting in a minimum of 3 – 5 gallons per acre.
		For Cutworm spp: Apply at planting on the soil surface in a 5 – 7 inch band or broadcast in a minimum of 3 – 5 gallons per acre.

PHI: Do not apply within 30 days of harvest.

**Maximum Amount per Application:** Do not apply more than 0.025 pound active ingredient per acre per application.

**Maximum Amount per Season:** Do not apply more than 20 ounces of product or 0.125 pound active ingredient per acre per season including atplant plus foliar applications.

Do not make more than 5 applications at the maximum rate per season.

Grazing: Do not graze livestock in treated areas or cut treated crops for feed.

Sunrlower, Castor Oil Plant, Chinese Tallowtree, Euphorbia, Evening Primrose, Jojoba, Niger Seed, Rose Hip, Stokes Aster, Tallowwood, Tea Oil Plant, and Vernonia (30 day PHI) (Foliar Use)

3	0
3	2

Insects Controlled	Rate of Application	Method of Application
Thistle Caterpillar (Painted Lady) Cutworm species	1.28 to 4.0 ounces (0.008 to 0.025 pound active) per acre	Apply with ground or air equipment using sufficient water and application methods to insure thorough coverage of foliage. Apply in a minimum of 2 gallons of finished spray per acre by aerial equipment or 10 gallons per acre by ground equipment. Begin applications when pest appears and repeat as necessary to maintain control. Do not make applications less than 7 days apart.  Use higher recommended dosage for increased residual pest control. Do not exceed maximum allowable rate.
Sunflower Beetle Sunflower Moth Sunflower Maggot Stem Weevil (adult) Grasshopper species Leafhopper species Head-Clipper Weevil (adult) Red Sunflower Seed Weevil (adult) Grey Sunflower Seed Weevil (adult) Saltmarsh Caterpillar Banded Sunflower Moth Armyworm Sunflower Butterfly Wooly Bear Caterpillar Japanese Beetle Webworm species	2.6 to 4.0 ounces (0.016 to 0.025 pound active) per acre	
Long-Horned Beetle (Dectes Stem Borer adult) Beet Armyworm Fall Armyworm Stink Bug Species Pale striped Flea Beetle	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	

PHI: Do not apply within 30 days of harvest.

**Maximum Amount per Season:** Do not apply more than 20 ounces of product or 0.125 pound active ingredient per acre per season including atplant plus foilar applications.

Do not make more than five applications at the maximum application rate per season.

Grazing: Do not graze livestock in treated areas or cut treated crops for feed

Avoid applications when honey bees are actively foraging by applying during the early morning or evening hours.

Tree Nuts Group (7 Day PHI) including: almond; beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; and walnut (black and English).

Insects	Rate of	Method of
Controlled	Application	Application
Black Pecan Aphid Codling Moth Filbert Worm Hickory Shuckworm Leaffooted Bugs Navel Orangeworm Oblique-banded Leafroller Peach Twig Borer Pecan Leaf Casebearer Pecan Nut Casebearer Pecan Phylloxera Pecan Weevil Plant Bugs Stink Bugs Walnut Aphid Walnut Husk Fly Yellow Pecan Aphid	3.2 to 4.0 ounces (0.02 to 0.025 pounds active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Do not exceed maximum allowable rate.  Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).

Do not apply more than 20 ounces of product or 0.125 pounds of active ingredient per acre per season.

Do not make applications less than seven days apart.

## t and Triticale (14 day phi for grain, forage, and );

3	)
3	1
/	'

Insects Controlled	Rate of Application	Method of Application
Cutworm spp., Army Cutworm Painted Lady Caterpillar (Thistle)	1.28 to 4.0 ounces (0.008 to 0.025 pound active) per acre	Apply as required by scouting. Timing and frequency of applications should be based upon insect populations
Armyworm, Southern Armyworm, True Armyworm, Yellowstriped Cereal Leaf Beetle Flea Beetle spp. Pale Wastern Cutworm Plant Bug spp. Spittlebug Webworm spp.	1.76 to 4.0 ounces (0.011 to 0.025 pound active) per acre	reaching locally determined economic thresholds. Do not exceed maximum allowable rate. Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).
Aphid spp. <sup>1,2</sup> Armyworm, Beet <sup>2</sup> Armyworm, Fall Chinch Bug Grass Sawfly Grasshopper spp. Greenbug <sup>2,3</sup> Stink Bug spp. Thrips spp. <sup>2,3</sup> Wheat Stem Sawfly (adult) <sup>3</sup> Whitefly spp. <sup>2,3</sup>	3.2 to 4.0 ounces (0.02 to 0.025 pound active) per acre	For chinch bug control, begin applications when bugs migrate from small grains or grass weeds. Apply sufficient spray volume to penetrate the soil/stem interface, leaf collars, and sheaths.

Do not make applications less than 14 days apart.

Do not apply more than 20 ounces of product or 0.125 pounds active ingredient per acre per season.

Aphid control may be variable depending on species present and host-plant relationships.

See resistance statement under "Directions For Use" section

<sup>&</sup>lt;sup>3</sup> Aids in Control

**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 must be followed carefully. It is impossible to eliminate all risks inherently 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 beyond the control or FMC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. EXCEPT AS WARRANTED BY THIS LABEL, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and buyer assumes the risk of any such use.

To the extent consistent with applicable law FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

FMC, Ammo, Capture, Fury, Mustang--trademarks of FMC Corporation Asana--trademark of E.I. duPont de Nemours & Company Ambush, Karate--trademarks of Zeneca, LTD.
Baythroid--Trademark of Bayer Aktiengesellschaft
Danitol--trademark of Sumitomo Chemical Company, LTD
Scout--trademark of Hoechst Schering Agrevo S.A.

© 2009 FMC Corporation All Rights Reserved