34704-858

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

> OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

June 13, 2013

Dr. Premjit Halarnkar Loveland Products Inc. P.O. Box 1286 Greeley, CO 80632-1286

Subject:

Amendment: Remove Coastal Counties Restriction Sniper® EPA Reg. No. 34704-858 Your Submission Dated April 26, 2013

Dear Dr. Halarnkar:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this action, please contact BeWanda Alexander at Alexander.bewanda@epa.gov or (703) 305-7460.

Sincerely. anda Uleyander Los

Richard Gebken Product Manager Team 10 Insecticide Branch Registration Division (7505P)

Enclosure

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## **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.



## Insecticide/Miticide

ACTIVE INGREDIENT:	BY WT
Bifenthrin: (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-	
1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate*	
OTHER INGREDIENTS**:	. <u>75.0%</u>
TOTAL	100.0%

\*Cis isomers 97% minimum, trans isomers 3% maximum.

\*\*Contains petroleum distillates.

This product contains 2.0 pounds active ingredient per gallon.

# KEEP OUT OF REACH OF CHILDREN WARNING—AVISO

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

	FIRST AID	
If swallowed:	<ul> <li>Immediately call a poison control center or doctor.</li> </ul>	
	•Do not induce vomiting unless told to do so by the poison control center or doctor.	
	•Do not give any liquids to the person.	
	•Do not give anything by mouth to an unconscious person.	· •
If in eyes:	•Hold eye open and rinse slowly and gently with water for 15 to 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.	
lf on skin	•Take off contaminated clothing.	
or clothing:	<ul> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> </ul>	
	•Call a poison control center or doctor for treatment advice.	
If inhaled:	Move person to fresh air.	
	<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> </ul>	
	•Call a poison control center or doctor for further treatment advice.	

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565. NOTE TO PHYSICIAN: This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

ACCEPTED JUN 1 3 2013 Under the Federal Insecticide. Fungicide, and Rodenticide Act as amended, for the pesticide Registered under EPA Reg. No. 3

## EPA REG. NO. 34704-858

EPA EST. NO. 5905-IA-001

NET CONTENTS 1.0 GAL (3.78 L)

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## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS WARNING

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if inhaled or absorbed through skin. Avoid breathing vapor or spray mist. 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):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E 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 barrier laminate or nitrile rubber or neoprene rubber or viton, 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 barrier laminate or nitrile rubber or neoprene rubber or viton,
- 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 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.

## **ENVIRONMENTAL HAZARDS**

This pesticide is 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 runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county, contact the local extension service for procedures and precautions to use to protect endangered species.

## **PHYSICAL / CHEMICAL HAZARDS**

Combustible. Do not use or store near open flame.

#### DIRECTIONS FOR USE

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

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

#### **RESISTANCE MANAGEMENT**

Sniper® contains a Group 3 Insecticide. With repeated use of Group 3 insecticides as the primary method of control in the same field for successive years, insect/mite populations can develop resistant biotypes. If this occurs, insect/mite biotypes with acquired resistance to Group 3 insecticides may eventually dominate the insect/mite population. This may result in partial or total loss of control of those species by Sniper or other Group 3 insecticides.

To delay development of insecticide resistance, the following practices are recommended:

 Base insecticide applications on comprehensive IPM programs. This program should include an insect management program that includes cultural and biological control where possible.

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- SNIPER® EPA REG. NO. 34704-858
- Use good resistance management strategies established for the use area. This may include the use of insecticide rotations or tank
  mixes with other groups of insecticide and miticides in an IPM program.
- Always apply Sniper at the recommended rates and according to label directions. Do not use less than recommended label rates alone or in tank mixtures unless directed otherwise in supplemental labeling supplied by Loveland Products, Inc.
- Monitor treated populations in the field for loss of control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. Immediately consult your local Loveland Products, Inc. representative or agricultural advisor for the best alternative method of control in your area.
- Do not treat seedling plants grown for transplant in greenhouses, shade houses, or field plots.
- Consult your local extension specialist, certified crop advisor, and/or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.

#### Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates. Cultivation within 10 feet of water body is prohibited to allow for the growth of a vegetated filter strip.

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.

## 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 nitrile rubber or neoprene rubber or viton, and

Shoes plus socks.

## **CHEMIGATION 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 an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialist, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

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. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

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

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

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

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

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

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

Do not apply when wind speed favors drift beyond the area intended for treatment.

For sprinkler irrigation, meter Sniper at a continuous uniform rate during the entire irrigation period. To ensure accurate application over the treated area, apply in sufficient volume of water or other diluent. If non-emulsified oil is used as the diluent, use 1.0 to 2.0

pints per acre. Continuous agitation of the pesticide supply tank for the duration of the application period is recommended. When chemigation systems are used, 0.5 inch per acre of irrigation water is suggested except that for Low Energy Precision Application (LEPA) irrigation, a minimum of 0.75 inch of water per acre is suggested.

## **ROTATIONAL CROPS**

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of Sniper.

#### **MIXING INSTRUCTIONS**

The spray tank must be clean, thoroughly rinsed, and decontaminated before adding either Sniper alone or with tank mix combinations (see Sniper in **Tank Mixtures** section below). If water is used as the carrier, use clean water.

For aerial applications made on brassicas (see **CROPS** section of the label below for full list of approved brassicas), canola, crambe, rapeseed, foliar applications on corn, cucurbits (see **CROPS** section of the label below for full list of approved cucurbits), eggplant, grapes, head lettuce, and succulent peas and beans (see **CROPS** section of the label below for full list of approved succulent peas and beans), 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. For aerial applications made on cotton, 1.0 quart of emulsified oil may be substituted for 1.0 quart of water in the finished spray. Thorough coverage is essential to achieve control.

**Sniper Used Alone:** When Sniper is used alone, add the recommended amount to the spray tank when the tank is half filled with water or other carrier; then add the rest of the water or other carrier (as permitted on this label). Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

**Sniper with Fertilizer:** Fill the spray tank approximately 1/2 full with water and/or liquid fertilizer, add the proper amount of Sniper, and then add the rest of the water and/or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.

A jar compatibility test should be performed with the appropriate ratio of Sniper and fertilizer to ensure the mixture will stay in solution. Maintain constant agitation during mixing and application.

**Sniper in Tank Mixtures:** If a tank mixture is used, it is recommended that a compatibility test be done before actual tank mixing. A jar test for physical compatibility is recommended for untried mixtures using proper ratios and mixing sequences of all ingredients to be included in the mixture. Once compatibility is confirmed for the tank mix, fill the tank half full with water or other carrier. Start and continue agitation throughout mixing following conventional mixing order practices. Sniper may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products.

#### **BUFFER ZONES**

#### Vegetative Buffer Strip

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 bifenthrin 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. 21 pp. <u>http://www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf</u>

#### 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, 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, 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, streams, marshes, 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 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 measured 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 vortices. 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 aircraft safety.

When applications are made with a crosswind, 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.

#### ARTICHOKE

	DO	SAGE	
PEST	LB AI/A	FL OZ/A	REMARKS
Artichoke plume moth Cribrate weevil	0.10	6.4	Apply when pest population reaches damaging threshold. Application by ground: Apply a full cover spray in a minimum of 75.0 gal of finished spray/A. Application by air: Apply specified dosage in a minimum of 10.0 gal/A.

• Repeat as necessary to maintain control, but not more often than 15-day intervals.

• Do not exceed 0.5 pound active ingredient (32.0 ounces formulated) per acre per season.

• A 5-day pre-harvest interval must be observed.

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		DOSAG	E	
CROP	PEST	LB AI/A	FL OZ/A	REMARKS
Head and Stem Brassica Vegetables including: Broccoli Brussels sprouts Cabbage Cabbage (gai choy) Cauliflower Cavalo broccolo Chinese broccoli (gai lon, white flowering broccoli) Chinese cabbage (napa) Chinese mustard Kohlrabi	Aphids Armyworm spp. Corn earworm Crickets Cucumber beetles Cutworms Diamondback moth Flea beetles Ground beetles Imported cabbageworm Leafhoppers Loopers Saltmarsh caterpillar Stink bugs Tobacco budworm Thrips Whitefly Wireworm (adults)	0.033 to 0.10	2.1 to 6.4	Apply in a minimum of 2.0 gal of finished spray/A by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray. Thorough coverage is essential to achieve control.
	Banks grass mite	0.08 to 0.10	5.12 to 6.4	
	Carmine mite			
	<i>Lygus</i> spp.			•
	Pacific spider mite Twospotted spider mite			

Do not make more than 5 applications after bloom.
Do not make applications less than 7 days apart.
Do not apply within 7 days of harvest.

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## BUSHBEBBIES

		DOSA	GE	
CROP	PEST	LB AI/A	FL OZ/A	REMARKS
Blueberry, highbush and lowbush Currant Elderberry Gooseberry Huckleberry	Aphids Blueberry maggot Fruitworms Japanese beetle Leafhoppers Leaf rollers Plum curculio Spanworm	0.033 to 0.10	2.1 to 6.4	Apply in a minimum of 2.0 gal of finished spray/A by air or in a minimun of 10.0 gal/A with ground equipment. Thorough coverage is essential to achieve control.
	Carmine mite Lygus spp. Pacific spider mite Twospotted spider mite	0.08 to 0.10	5.12 to 6.4	

Do not apply more than 0.5 pound active ingredient (32.0 ounces formulated) per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 1 day of harvest.

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## **CANEBERRIES**

		DOSAG	E	
CROP	PEST	LB AI/A	FL OZ/A	REMARKS
Caneberries including: Bingleberries	Leafrollers Orange tortrix Root weevils	0.05 to 0.10	3.2 to 6.4	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10.0
Blackberries Dewberries Loganberries Marionberries Olallieberries Raspberries Youngberries	Raspberry crown borer Spider mites	0.10	6.4	gal/A by air and 50.0 gal/A by ground). One application may be made pre-bloom and a second application may be made post-bloom. For <b>Crown borer</b> , apply 0.1 lb Al (6.4 oz formulated)/A post-harvest (fall) or pre-bloom (spring) as a drench application directed at the crown of plants in a minimum of 200 gal water/A. Greater efficacy is observed at higher water gallonages (up to 400 gal) or in an application prior to a significant rainfall event. Do not make both pre-bloom foliar and pre-bloom drench applications.

Do not apply within 3 days of harvest.
Do not exceed 0.2 pound active ingredient (12.8 ounces formulated) per acre per season.

## CANOLA, CRAMBE, RAPESEED

Rapeseed Cutworms Diamondback moths Flea beetle	FL OZ/A 2.1 to 2.6	<b>REMARKS</b> Apply in a minimum of 2.0 gal of finished spray/A by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water
Crambe Armyworms Rapeseed Cutworms Diamondback moths Flea beetle	2.1 to 2.6	finished spray/A by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be
Rapeseed Cutworms Diamondback moths Flea beetle		minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be
Diamondback moths Flea beetle		equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be
Flea beetle		1.0 to 2.0 qt of emulsified oil may be
Elea honnor	·	substituted for 1.0 to 2.0 of of water
Flea hopper		
Grasshopper		in the finished spray. Thorough coverage
Loopers		is essential to achieve control.
Other Lepidopterous		
larvae		
Plant bug		
Seedpod weevil		
Stink bugs		
Thrips		
Whitefly		
• Do not apply more than 0.08 pound active ingredient (5.12 ounces f	ormulated) per ac	cre per season.
<ul> <li>Do not make applications less than 14 days apart.</li> </ul>		
Do not apply within 35 days of harvest.		

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#### **CHRISTMAS TREES**

	DOSAGE			
PEST	LB AI/A	FL OZ/A	REMARKS	
Balsam twig aphid Balsam woolly adelgid Cinara aphid Elongate hemlock scale Root weevil Spruce spider mite	0.06 to 0.2	3.9 to 12.8	<b>Ground application:</b> Apply in water in a minimum of 20.0 gal/A. <b>Air application:</b> Apply in water in a minimum of 5.0 gal/A. Sniper is generally not phytotoxic to Christmas trees. However, applications should be made to a small representative group of plants to ensure that a particular variety grown under current conditions is not unusually sensitive to Sniper. Maintain a minimum of 21 days between applications.	

Do not apply more than 0.2 pound active ingredient (12.8 ounces formulated) per acre per treatment.
Do not make more than 3 applications in a crop year.
Do not make applications through irrigation systems.

## CILANTRO, CORIANDER

	DOSAGE		
PEST	LB AI/A	FL OZ/A	REMARKS
Aphids Beet armyworm Cabbage looper Cutworms Flea beetle Grasshoppers Leafminers Saltmarsh caterpillar Spotted cucumber beetle Thrips Whitefly	0.033 to 0.10	2.1 to 6.4	Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10.0 gal of finished spray/A or a minimum of 2.0 gal/A by aircraft.
Twospotted spider mite	0.08 to 0.10	5.12 to 6.4	· · ·
• Do not make applications less than 7 days		·····	

Do not apply more than 0.50 pound active ingredient (32.0 ounces formulated) per acre per season.
Do not apply within 3 days of harvest.

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# CITRUS (1 day PHI)\*

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CITRUS (1 day PHI)*	DOSA	GF		
PEST	LB AI/A	FL OZ/A	REMARKS	
Blue-green citrus root weevil ( <i>Pachnaeus opalus</i> ) Brown leaf notcher ( <i>Epicaerus mexicanus</i> )	0.25 to 0.50	16.0 to 32.0	The use of this product protects citrus tree roots from <i>Diaprepes</i> and other Citrus root weevil feeding by creating a barrier. As Citrus root weevil eggs	
Diaprepes root weevil (Diaprepes abbreviatus) Little leaf notcher (Artipus floridanus)			hatch, the newly hatched larvae (neonates) fall to the soil surface beneath the tree and come into contact with this product as they attempt to	
Southern blue-green citrus root weevil (Pachnaeus litus)			burrow into the root zone. Disturbance of the soil beneath the tree should be	
Asian cockroach ( <i>Blatella asahinae</i> ) Fire ant	0.1 to 0.25	6.4 to 16.0	minimized. Timing of application is very important Peak emergence of <i>Diaprepes</i> adults	
( <i>Solenopsis</i> spp.)	· · ·		varies by citrus growing region, and environmental factors such as soil	
			moisture can affect emergence. Usually, 2 peaks occur for <i>Diaprepes</i> , first in the spring then late summer or	
			early fall. Southern blue-green and Blue-green citrus weevils and Fuller rose beetle usually have a single	
			emergence peak in the spring. Brown and Little leaf notchers usually have 3 emergence peaks, spring, summer	
			and fall. Since emergence varies by region and season, the best way to tim application is to observe the adults. By	
			trapping adults when they are most active (in the morning or/and late	
			afternoon) during the spring and summer emergence periods, an estimation of numbers can be obtained	
			Eggs are laid 8 to 10 weeks following the adult emergence from the soil; larvae invasion into the soil will begin	
			2 to 3 weeks following adult emergence This product must be applied prior to the dropping of the neonates. Consult	
			local university extension personnel for current information to protect citrus	
			trees from Citrus root weevils and othe pests. Apply this product by ground equipment to bare soil beneath citrus	
			trees. This product must be uniformly applied from the trunk to the drip line of the tree, apply in a minimum of 40.0	
			gal of dilute spray/A. Greater spray volume should insure greater uniformit of coverage. A pre- and post-applicatio	
			irrigation may aid in the uniformity of coverage as well. Apply to individual citrus resets, when	
			not in solid planted rows, using hand- gun or shielded sprayer. Peak emergence of <i>Diaprepes</i> root	
			weevil generally occurs in the spring. Depending on weather conditions, a	
			minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.	

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#### CITRUS (1 day PHI)\* cont'd.:

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area where weath conducive to prin	· · · · · · · · · · · · · · · · ·
formulated produces obtain the longes ment of <i>Diaprepee</i> If the citrus grown area where weath promote more the emergence, 16.0 product can be a and 16.0 fl oz for can be applied lat. If emergence externational protection grower is advised management stratic control or soil lar nematodes). Con	grove to be treated is in an veather conditions are p primary emergence the spring, 32.0 fl oz product should be used to ngest residual manage- prepes root weevil. grove to be treated is in an veather conditions will re than 1 peak of pest 16.0 fl oz formulated be applied early season oz formulated product ed later in the season. e extends beyond the tection of this product, vised to use additional t strategies (i.e. foliar adult pil larvae control such as Contact your state Extension Specialist as to

\*Not for use in California unless allowed by an approved supplemental labeling.

Do not apply through irrigation systems.
Do not allow any application of this product to contact fruit or foliage.

• Do not apply more than a total of 32.0 fluid ounces of formulated product (0.5 pound active ingredient) per acre per year.

• Apply the specified dosage in a minimum of 40.0 gallons of finished spray per acre.

• Ground application only. Do not apply by air.

#### **CONIFER SEED ORCHARDS**

(For Use Only in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, Virninia)

	DOS	AGE		
PEST	LB AI/A	FL OZ/A	REMARKS	
Cone worms Seed bugs Seed worms	0.1 to 0.2	6.4 to 12.8	Ground application: Apply in water in a minimum of 100 to 500 gal/A. Air application: Apply in water in a minimum of 10.0 gal/A or 0.5 gal refined vegetable oil/A. Apply in sufficient water to obtain thorough coverage. Begin applications 7 days after peak pollen flight and continue on 30-day intervals up to a maximum of 0.6 lb Al/A/season.	

• Do not make more than 6 applications per season or apply more than 0.6 pound active ingredient (38.4 ounces formulated) per acre per season.



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## FIFI D CORN (GRAIN AND SILAGE), POPCOBN, FIELD CORN GROWN FOR SEED (AT PLANT USE)

FIELD CORN (GRAIN AND SILAGE), FOFCOR	DOSA		
PEST	LB AI	FL OZ	REMARKS
Corn rootworm larvae	0.0046/1000	0.30/1000	Apply as a 5- to 7-inch T-band treatment
Northern	linear ft/row	linear ft/row	over an open seed furrow. Position the
Southern			spray nozzle behind the planter shoe, in
Western			front of the press wheel centered over
Army cutworm	0.0023 to	0.15 to 0.30	the row. Use the table below to
Cutworm spp.	0.0046/1000	/1000	determine this product's needs/A.
Grubs	linear ft/row	linear ft/row	Apply in a minimum of 3.0 gal of
Seed corn beetle			finished spray/A.
Seed corn maggot			Mix this product with water or fertilizer
True armyworm or Armyworm spp.			in the following manner. Fill the spray
Wireworm			tank, approximately 1/2 full with water or liquid fertilizer, add the proper
			amount of this product then add the
			rest of the water or fertilizer. Provide
			sufficient agitation during mixing and
			application to maintain a uniform spray
			míxture.
			Applications of this product alone or in
			recommended tank mixtures, in
			conjunction with in-furrow pop-up
			fertilizers may be used. A jar
			compatibility test should be performed
			with appropriate ratio of this product
	•		and fertilizer to ensure mixture will stay
			in solution. Constant agitation should
			be maintained during mixing and
			application.

Do not apply to soil where there is greater than 30% cover of crop residue remaining.
Do not apply within 30 days of harvest.
Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.
Do not apply more than 0.1 pound active ingredient (6.4 ounces formulated) per acre per season as an at plant application.

Row Spacings (inches)	40	38		30	
Sniper (Ib AI/A)	0.060	0.064	0.069	0.080	
Sniper (formulated oz/A)	3.9	4.1	4.4	5.12	

## FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (PRE & PPI)

	DOSAGE			
PEST	LB AI/A	FL OZ/A	REMARKS	
Armyworm spp. Black cutworm Seedcorn maggot Stalkborer White grub Wireworm	0.047 to 0.062 Pre-Plant Incorporated (PPI)	3.0 to 4.0 Pre-Plant Incorporated (PPI)	The 3.0 to 4.0 oz/A rate must be applied as PPI and can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.	
Armyworm spp.	0.040	2.56	The 2.56 oz/A rate may be applied PRE	
Black cutworm	Pre-Emergence	Pre-Emergence	and can be tank mixed and applied with	
Stalkborer	(PRE)	<u>  (PRE)</u>	PRE herbicides.	

### FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (FOLIAR USE)

THEE OUT (UNA MID OLENCE), I OF COM	DOSA	GE	
PEST	LB AI/A	FL OZ/A	
Aphids	0.033 to 0.10	2.1 to 6.4	
Army cutworm			
Beet armyworm			
Cereal leaf beetle			
Chinch bug	· · · · · · · · · · · · · · · · · · ·		
Common stalk borer			
Corn earworm			
Corn rootworm (adults)			
Cucumber beetle (adults)			
Cutworm spp.			
European corn borer			
Fall armyworm			
Flea beetle			
Grasshoppers			
Greenbug			
Japanese beetle (adults)			
Sap beetle			
Southern armyworm Southern corn leaf beetle			
Southern corn borer		•	
Stink bug			
Tarnished plant bug			
True armyworm or Armyworm spp.			
Webworms			
Western bean cutworm			
Yellowstriped armyworm			
Banks grass mite	0.08 to 0.10	5.12 to 6.4	
Carmine mite			
Twospotted spider mite			
Destrictions Corr			

#### **Restrictions - Corn**

 Do not apply more than 0.3 pound active ingredient (19.2 ounces formulated) per acre per season including PRE and PPI, at plant, plus foliar applications. In California do not exceed the maximum rate of 0.2 pound active ingredient per acre per season.

• Do not apply within 30 days of harvest.

• Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.

Use of ultra low volume (ULV) application on corn is prohibited.

• Do not make aerial or ground applications to corn if heavy rainfall is imminent.

#### **Remarks - Corn**

**General:** Apply in a minimum of 2.0 to 5.0 gallons of finished spray per acre by aircraft or in a minimum of 10.0 gallons per acre with ground equipment. To improve control by aircraft, use 5.0 gallons of finished spray per acre particularly when initial populations are heavier than normal. See specific comment below for AZ, NM, OK, and TX mite control. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

To control ear-attacking pests: Apply this product just before silking and repeat as necessary to maintain control but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.

Southwestern corn borer, European corn borer: Make application for Corn borer control with initial application at or shortly before egg hatch.

For control of other listed insect pests: Apply when pests first appear and repeat as necessary but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.

#### For control of mite:

Apply for Banks grass mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.

For Twospotted spider mite and Carmine mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

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Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 pound active ingredient per acre in tank mixture has demonstrated good control under these conditions.

For mite control in Arizona, New Mexico, Oklahoma, Texas: Apply in a minimum of 5.0 gallons of finished spray per acre by aircraft or in a minimum of 10.0 gallons per acre with ground equipment.

#### SWEET CORN (GRAIN AND SILAGE) SWEET CORN GROWN FOR SEED (AT PLANT USE)

	DOSA	GE	,
PEST	LB AI	FL OZ	REMARKS
Corn rootworm larvae Mexican (California) Northern Southern Western	0.0046/1000 lin ft/row	0.30/1000 lin ft/row	Apply as a 5- to 7-inch T-band treatmen over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to
Army cutworm Cutworm spp. Grubs Seed corn beetle Seed corn maggot True armyworm or Armyworm spp. Wireworm	0.0023 to 0.0046/1000 lin ft/row	0.15 to 0.30 /1000 lin ft/row	determine the Sniper needs/A. Apply in a minimum of 3.0 gal of finished spray/A. Mix this product with water or fertilizer in the following manner. Fill the spray tank approximately 1/2 full with water or liquid fertilizer, add the proper amount of Sniper then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture. Applications of this product alone or in recommended tank mixtures, in conjunction with in-furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of this product and fertilizer to ensure mixture will stay in solution. Constant agitation should be be maintained during mixing and

• Do not apply to soil where there is greater than 30% cover of crop residue remaining.

• Do not apply within 30 days of harvest.

• Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.

• Do not apply more than 0.1 pound active ingredient (6.4 ounces formulated) per acre per season as an at-plant application.

Row Spacings (inches)	40	38	36	30	
Sniper (Ib Al/acre)	0.060	0.064	0.069	0.080	
Sniper (formulated oz/A)	3.9	4.1	4.4	5.12	

#### SWEET CORN (GRAIN AND SILAGE) SWEET CORN GROWN FOR SEED (FOLIAR USE)

SWEET CONN GROWN FOR SEED (FOLIAR C	DOSA	GE	
PEST	LB AI/A	FL OZ/A	
Aphids	0.033 to 0.10	2.1 to 6.4	
Army cutworm			
Beet armyworm			
Cereal leaf beetle			
Chinch bug			
Common stalk borer	-		
Corn earworm		,	
Corn rootworm (adults)			
Corn silk fly (California)			
Cucumber beetle (adults)			
Cutworm spp.			
European corn borer			
Fall armyworm	• •		
Flea beetle			
Grasshoppers			
Greenbug			
Japanese beetle (adults)			
Sap beetle			
Southern armyworm			
Southern corn leaf beetle			
Southwestern corn borer			
Stinkbugs			
Tarnished plant bug			
True armyworm or Armyworm spp.			
Webworms			
Western bean cutworm			
Yellowstriped armyworm	0.08 to 0.10	5.12 to 6.4	
Banks grass mite Carmine mite		0.12 10 0.4	
Pacific spider mite (California)			
Twospotted spider mite			
Restrictions Sweet Corp			

#### **Restrictions - Sweet Corn**

• Do not apply more than 0.2 pound active ingredient (12.8 ounce formulated) per acre per season.

• Do not apply within 1 day of harvest.

• Do not graze livestock in treated areas or cut treated crops for feed within 1 day of the last application.

• Use of ultra low volume (ULV) application on corn is prohibited.

Do not make aerial or ground applications to corn if heavy rainfall is imminent.

#### **Remarks - Sweet Corn**

**General:** Apply in a minimum of 2.0 gallons of finished spray per acre by air or in a minimum of 10.0 gallons per acre with ground equipment. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

To control ear-attacking pests: Apply this product before silking begins and repeat as necessary to maintain control but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.

Southwestern corn borer, European corn borer: Make 2 applications for Corn borer control with initial application at or shortly before egg hatch.

For control of other listed insect pests: Apply when pests first appear and repeat as necessary but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.

#### For Control of Mites:

Apply for Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant. For Twospotted spider mite and Carmine mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.

COTTON			<b>,</b>
	DOSAC		
PEST	LB AI/A	FL OZ/A	
European corn borer	0.02 to 0.10	1.3 to 6.4	
Soybean (banded) thrips			
Tobacco thrips			
Boll weevil	0.04 to 0.10	2.6 to 6.4	
Bollworm			
Cabbage looper			
Cotton aphid			
Cotton fleahopper			
Cotton leafperforator			
Cutworms			
Fall armyworm			
Plant bugs			
Saltmarsh caterpillar			·
Southern garden leafhopper			
Stink bugs			
Tobacco budworm			
Whitefly			
Yellowstriped armyworm			
Beet armyworm	0.06 to 0.10	3.8 to 6.4	
Carmine spider mite			
Kudzu bug	· · · · ·		
Lygus spp. (except California)			
Pink bollworm			· ·
Twospotted spider mite			
Western plant bug			<u> </u>
Restrictions - Cotton			

**Restrictions - Cotton** 

 Do not apply more than 0.5 pound active ingredient (32.0 ounces formulated) per acre per season in all states except CA. For CA, do not apply more than 0.3 pound active ingredient per acre per season.

• Do not apply within 14 days of harvest.

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

• Do not make more than 10 synthetic pyrethroid applications (of 1 product or combination of products) to a cotton crop in 1 growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang® and Sniper.

#### **Remarks - Cotton**

This product may be applied in water or refined vegetable oil (soybean/cottonseed).

**Application in Water:** Apply in a minimum of 5.0 gallons per acre with ground equipment or 1.0 gallon per acre by aircraft. When applying by air, 1.0 quart of emulsified oil may be substituted for 1.0 quart of water in the finished spray.

**ULV Application:** Apply the recommended rate of this product in refined vegetable oil in a minimum of 1.0 quart of finished spray per acre with aircraft calibrated to give adequate coverage.

To Control Boll weevil: Apply this product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.

To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.

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CUCURBITS

CUCURBITS		DOSAC	E	
CROP	PEST	LB AI/A	FL OZ/A	REMARKS
Chayote (fruit)	Aphids	0.04 to 0.10	2.6 to 6.4	Apply in a minimum of 5.0 gal of
Chinese waxgourd	Armyworms			finished spray/A by air or in a minimum
(Chinese preserving	Cabbage looper			of 20.0 gal/A with ground equipment.
melon)	Corn earworm			When applying by air, 1.0 to 2.0 gt of
Citron Melon	Cucumber beetles			emulsified oil may be substituted for
Cucumber	Cutworms			1.0 to 2.0 qt of water in the finished
Gherkin	Grasshopper			spray. Thorough coverage is essential
Gourd, edible (includes	Leafhoppers			to achieve control.
hyotan, cucuzza)	Melonworm			
Luffa spp.	Pickleworm			
(includes hechima,	Plant bug			
Chinese okra)	Rindworm			
Momordica spp.	Squash bugs		l	
(includes balsam apple	Squash vine borer			
	Stink bugs			
balsam pear				
bitter melon	Tobacco budworm	0.08 to 0.10	E 10 to C 4	
Chinese cucumber)	Banks grass mite	0.08 to 0.10	5.12 to 6.4	
Muskmelon	Carmine mite			
(hybrids and/or	Lygus spp.			
cultivars of	Twospotted spider mite			
Cucumis melo)	Whitefly			
(includes true				
cantaloupe		]		
cantaloupe			•	
casaba		<u> </u>		
crenshaw melon				
golden pershaw melon				
honeydew melon				
honey balls				·
mango melon				
Persian melon				
píneapple melon				· -
Santa Claus melon				
and snakemelon)	· · ·			
Pumpkin				
( <i>Cucurbita</i> spp.)				
Squash, summer	· ·			
(includes crookneck				
squash				
scallop squash				
straightneck squash				
vegetable marrow				
zucchini)				
Squash, winter				
(includes butternut				
squash				
calabaza				
hubbard				
squash				
(C. mixta; C. pepo				
includes acorn squash				
spaghetti squash)				
Watermelon				
(includes hybrids				
and/or varieties of				
<i>Citrullus</i> spp.).				
<i>LIUUIUS</i> SDD.1.				

Do not make more than 2 applications after bloom.
Do not make applications less than 7 days apart.
Do not apply within 3 days of harvest.

#### **DRIED BEANS AND PEAS such as:**

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Dried cultivars of: Bean (*Lupinus* spp.): Grain lupin, Sweet lupin, White lupin, White sweet lupin, Bean (*Phaseolus* spp.): Field bean, Kidney bean, Lima bean (dry), Navy bean, Pinto bean, Tepary bean; Bean (*Vigna* spp.): 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.): Field pea; Pigeon pea.

(risuin spb.). Heid bea, rigeon bea.	DOSA	GE	
PEST	LB AI/A	FL OZ/A	REMARKS
Aster leafhopper	0.025 to 0.10	1.6 to 6.4	Apply in a minimum of 2.0 gal of
Flea beetle			finished spray/A by air or in a minimum
Leafhoppers			of 10.0 gal/A with ground equipment.
Alfalfa caterpillar	0.033 to 0.10	2.1 to 6.4	When applying by air, 1.0 to 2.0 qt of
Aphids			emulsified oil may be substituted for
Bean leaf beetle			1.0 to 2.0 qt of water in the finished
Beet armyworm			spray. Thorough coverage is essential
Cloverworm			to achieve control.
Corn earworm			
Corn rootworm (adults)			
Cucumber beetles			
Cutworms			
European corn borer			
Fall armyworm			
Grasshoppers .			
Imported cabbageworm			
Japanese beetle (adults)			
Leaf miner			
Loopers			
Mexican bean beetle			
Pea leaf weevil			
Pea weevil			
Plant bug			
Saltmarsh caterpillar			
Sap beetle			
Southern armyworm			
Stink bugs			
Tarnished plant bug			
Thrips			
Tobacco budworm			
Webworms			· ·
Western bean cutworm			
Whitefly		· .	
Yellowstriped armyworm			
Banks grass mite	0.08 to 0.10	5.12 to 6.4	
Carmine mite			
Lygus spp.			
Twospotted spider mite			

• Do not apply more than 0.2 pound active ingredient (12.8 ounces formulated) to peas, or 0.3 pound active ingredient (19.2 ounces formulated) to beans per acre per season.

• Do not apply within 14 days of harvest.

• Do not make applications less than 7 days apart.

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## FRUITING VEGETABLES

		DOSAGE			
CROP	PEST	LB AI/A	FL OZ/A	REMARKS	
Eggplant Eggplant Groundcherry Pepino Pepper (bell & non-bell)	Armyworm spp. including Beet armyworm Fall armyworm Southern yellowstriped armyworm Cabbage looper Colorado potato beetle Corn earworm Cucumber beetle Cutworms European corn borer	0.033 to 0.10	2.1 to 6.4	Apply in a minimum of 2.0 gal of finished spray/A by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray. Thorough coverage is essential to achieve control.	
	Flea beetle Leafminers Loopers Pepper weevil Plant bugs Stink bugs Thrips Tomato hornworm Tomato pinworm Vegetable leafminer				
	Whitefly Banks grass mite Broad mite Carmine mite <i>Lygus</i> spp. Pacific spider mite Twospotted spider mite	0.08 to 0.10	5.12 to 6.4		

Do not apply more than 0.2 pound active ingredient (12.8 ounces formulated) per acre per season.
Do not apply within 7 days of harvest.

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## **GRAPES\***

	DOSA	GE	
PEST	LB AI/A	FL OZ/A	REMARKS
Cutworms Eastern grape leafhopper Grape berry moth Japanese beetles (adults) Lady beetle (Scymnus) Variegated leafhopper Western grape leafhopper	0.05 to 0.10	3.2 to 6.4	Apply in a minimum of 10.0 gal of finished spray by air or in a minimum of 25.0 gal of finished spray with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished
Black vine weevil Glassywinged sharpshooter Twospotted spider mite	0.10	6.4	spray. Thorough coverage is essential to achieve control. When pest pressure is moderate to severe, use higher rate.

## **RESTRICTIONS:**

\*Not for use in California unless allowed by an approved supplemental labeling.

• Do not apply more than 0.10 pound active ingredient (6.4 ounces formulated) per acre per season.

• Do not apply within 30 days of harvest.

HOPS	· ·		
	DOSA	GE	, , , , , , , , , , , , , , , , , , ,
PEST	LB AI/A	FL OZ/A	REMARKS
Aphids Armyworms Cutworms Leafrollers Loopers	0.06 to 0.10	3.8 to 6.4	Application by ground: For best results, full coverage is essential. Early season rates, use 100 to 150 gal/spray/A. Late season rates, use 200 to 250 gal/spray/A. For Root weevil control, make a
Root weevils	0.05 to 0.10	3.2 to 6.4	directed spray to the base of the plant.
Twospotted spider mite	0.10	6.4	Spray up the vine 3 ft and the soil surface 1.5 to 2 ft on either side of plant. Application by air for late season control of Twospotted spider mites: Apply no less than 6.4 oz (0.1 lb Al)/ application in a minimum of 10.0 gal/A.

• Do not exceed 0.1 pound active ingredient (6.4 ounces formulated) per acre per application.

• Do not exceed 0.3 pound active ingredient (19.2 ounces formulated) per acre per season.

• A spray interval of 21 days between applications must be maintained.

A 14-day pre-harvest interval must be observed.
 <u>Use of ultra low volume (ULV) application on hops is prohibited.</u>

## **LEAFY BRASSICAS:**

Broccoli raab, Bok choy, Collards, Kale, Mizuna, Mustard greens, Mustard spinach, Rape greens, Turnip greens\*

and the second	DOSA	GE	€
PEST	LB AI/A	FL OZ/A	REMARKS
Aphids	0.033 to 0.10	2.1 to 6.4	Apply in a minimum of 2.0 gal of
Armyworms			finished spray/A by air or in a
Corn earworm			minimum of 10.0 gal/A with ground
Crickets			equipment.
Cucumber beetles			When applying by air, 1.0 to 2.0 qt of
Cutworms			emulsified oil may be substituted for
Diamondback moth			1.0 to 2.0 qt of water in the finished
Flea beetles			spray. Thorough coverage is essential
Grasshoppers			to achieve control.
Ground beetles			
Imported cabbageworm			
Japanese beetle (adults)			
Leafhoppers			
Loopers			
Saltmarsh caterpillar			
Stink bugs			
Thrips			
Tobacco budworm			
Whitefly			
Wireworm (adults)	· · · · · · · · · · · · · · · · · · ·		
Banks grass mite	0.08 to 0.10	5.12 to 6.4	
Carmine mite			
<i>Lygus</i> spp.		<u> </u>	
Pacific spider mite			
Twospotted spider mite			

\* Not for use in California unless allowed by an approved supplemental labeling.
• Do not apply more than 0.4 pound active ingredient (25.6 ounces formulated) per acre per season.
• Do not make applications less than 7 days apart.
• Do not apply within 7 days of harvest.

## LEAFY PETIOLE VEGETABLES

		DOSA	GE		
CROP	PEST	LB AI/A	FL OZ/A	REMARKS	
Cardoon	Aphids	0.033 to 0.10	2.1 to 6.4	Apply in a minimum of 2.0 gal of	
Celery	Armyworms			finished spray/A by air or in a	
Celtuce	Corn earworm			minimum of 10.0 gal/A with ground	
Chinese celery	Crickets			equipment. Thorough coverage is	
Florence fennel	Cucumber beetles			essential to achieve control.	
Rhubarb	Cutworms				
Swiss chard	Diamondback moth				
	Flea beetles				
	Ground beetles			· · · ·	
	Imported cabbageworm				
	Leafhoppers				
	Loopers				
	Stink bugs			· ·	
	Thrips				
	Wireworm (adults)	· · · · ·			
	Carmine mite	0.08 to 0.10	5.12 to 6.4		
	<i>Lygus</i> spp.				
	Pacific Spider mite			· · ·	
	Twospotted spider mite				

Do not make applications less than 7 days apart.
Do not apply within 7 days of harvest.

## LETTUCE (HEAD)

	DOSAGE			
PEST	LB AI/A	FL OZ/A	REMARKS	
Aphids	0.033 to 0.10	2.1 to 6.4	Apply in water as necessary for insect	
Armyworms			control using a minimum of 15.0 gal	
Corn earworm			of finished spray/A with ground	
Cucumber beetles			equipment and 5.0 gal/A by air.	
Cutworms			When applying by air, 1.0 to 2.0 gt of	
Diamondback moth			emulsified oil may be substituted for	
Flea beetles			1.0 to 2.0 gt of water in the finished	
Imported cabbageworm			spray. Thorough coverage is essential	
Leafhoppers			to achieve control.	
Loopers				
Saltmarsh caterpillar				
Stinkbug spp.				
Tobacco budworm				
Whitefly		<u> </u>		
Carmine mite	0.08 to 0.10	5.12 to 6.4		
<i>Lygus</i> spp.				
Twospotted spider mite			· · ·	
• No not make applications less than 7 days apart				

. Do not make applications less than 7 days apart.

• A maximum of 0.5 pound active ingredient (32.0 ounces formulated) may be applied per acre pre season.

• Do not apply within 7 days of harvest.

## MAYHAW\*

	DOSAG	E	
PEST	LB AI/A	FL OZ/A	REMARKS
Plum curculio	0.08 to 0.10	5.12 to 6.4	Apply in water in a minimum of 28.0

\*Not for use in California unless allowed by an approved supplemental labeling.

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• Apply no more than once every 7 days.

• Do not apply more than 0.2 pound active ingredient (12.8 ounces formulated) per acre per season.

• Do not apply within 30 days of harvest.

#### OKRA

	DOSA	GE	
PEST	LB AI/A	FL OZ/A	REMARKS
Aphids	0.033 to 0.10	2.1 to 6.4	Apply using sufficient water to obtain
Armyworms			uniform coverage. Apply as needed.
Corn earworm			Apply with ground equipment using a
Cucumber beetles			minimum of 10.0 gal of finished spray
Cutworms			/A or a minimum of 2.0 gal/A by
European corn borer			aircraft.
Flea beetles			
Japanese beetle (adults)			
Leafminers			
Loopers			
Stink bugs			
Thrips			
Whitefly			
Broad mite	0.08 to 0.10	5.12 to 6.4	
Carmine mite	•		
<i>Lygus</i> spp.	1	[	
Twospotted spider mite			
Do not make applications less than 7 d	avs apart.		

• Do not apply more than 0.2 pound active ingredient (12.8 ounces formulated) per acre per season.

Do not apply within 7 days of harvest.

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	DOSA	GE	
PEST	LB AI/A	FL OZ/A	REMARKS
Beet armyworm	0.033 to 0.10	2.1 to 6.4	Apply in a minimum of 10.0 gal/A with
Corn earworm			ground equipment or 2.0 gal/A by
Cutworm spp.			aircraft.
Fall armyworm			
Grasshoppers			
Green cloverworm			
Leafhoppers			
Lesser cornstalk borer			
Loopers			
Rednecked peanut worm			
Southern armyworm			
Southern corn rootworm			
Stink bugs			
Threecornered alfalfa hopper			
Velvetbean caterpillar			
Yellowstriped armyworm			
Aphids	0.08 to 0.10	5.12 to 6.4	
Spider mites			
Thrips			
Whitefly			

\*Not for use in California unless allowed by an approved supplemental labeling.

• Do not apply more than 0.5 pound active ingredient (32.0 ounces formulated) per acre per season.

• Do not apply within 14 days of harvest.

• Do not feed green immature plants and peanut hay to livestock.

• To maintain a proper spray interval, do not make applications less than 14 days apart.

## PEARS

	DOS	AGE	
PEST	LB AI/A	FL OZ/A	REMARKS
AphidsCodling mothCutwormsGreen fruitwormLeafhoppersLeafminersLeafrollersLygus spp.Plant bugsPlum curculioSan Jose scale (crawlers)Stink bugsTarnished plant bugs	0.04 to 0.2	2.6 to 12.8	<ul> <li>Application by ground: Apply as a dilute (minimum of 200 gals of finished spray/A) or concentrate (minimum of 50.0 gal of finished spray /A) spray in sufficient water to provide thorough coverage.</li> <li>Application by air: Apply the specified dosage in a minimum of 10.0 gal/A by air.</li> <li>Apply as necessary to maintain control.</li> </ul>
Twospotted spider mite	0.06 to 0.2	3.8 to 12.8	
Yellow mite			
European red mite	0.08 to 0.2	5.12 to 12.8	

• Do not apply more than 0.5 pound active ingredient (32.0 ounces formulated) per acre per season with no more than 0.45 pound active ingredient (28.8 ounces formulated) per acre applied after petal fall.

• Apply up to 14 days prior to harvest.

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

• To maintain a proper spray interval, do not make applications less than 30 days apart.

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## ROOT CROPS (Except Sugar Beets)\*

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		DOSAC		
CROP	PEST	LB AI/A	FL OZ/A	REMARKS
Burdock, edible	Aphids	0.08 to 0.10	5.12 to 6.4	Apply foliar treatments in at least 25.0
Carrot	Beet armyworm			gal water/A.
Celeriac	Celery leaf tier			-
Chervil, turnip rooted	Corn earworm			· ·
Chicory	Cross-striped			
Ginseng	cabbageworm			
Horseradish	Cutworms			
Parsley, turnip rooted	Diamondback moth			
Parsnip	European corn borer			
Radish	Fall armyworm			
Radish, Oriental	Fire ants			
Rutabaga	Flea beetles			·
Salsify	Green cloverworm			
Salsify, black	Hornworms			
Salsify, Spanish	Imported cabbageworm			
Skirret	Loopers			
Turnip	Southern armyworm			
	Spider mites			
•	Tobacco budworm			
	Velvetbean caterpillar			
	Whitefly			
	Yellowstriped armyworm	L	· .	<u> </u>
<ul> <li>Apply no more than once</li> </ul>				•
<ul> <li>Do not apply more than 0</li> </ul>		(32.0 ounces for	mulated) per acre	per season.
• Do not apply within 21 da				
Garden beet	Aphids	0.08 to 0.10	5.12 to 6.4	Ground application: Apply in water in a
	Fire ants			minimum of 25.0 gal of finished
	Flea beetles	•		spray/A.
	Lepidopterous larvae			Air application: Apply in water in a
	Spider mites		-	minimum of 2.0 gal/A.
	Whitefly			Apply in sufficient water to obtain
				uniform coverage as needed.

• Do not apply within 1 day of harvest.

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SUTBEANS*		DOSA	GE	· ·
PEST		LB AI/A	FL OZ/A	REMARKS
Alfalfa caterpillar		0.033 to 0.10	2.1 to 6.4	Apply in a minimum of 10.0 gal/A with
Aphids				ground equipment or 2.0 gal/A by
Armyworm	·			aircraft.
Aster leafhopper				
Bean leaf beetle				Pyrethroid resistance is common for
Beet armyworm				Beet armyworm and Tobacco budworm.
Blister beetles				Please consult your local or state
Cloverworm		•		agricultural authority to determine if
Corn earworm				resistance pest populations are in your
Corn rootworm (adults)				area. If so refer to the resistance
Cowpea curculio				management statement in the
Cucumber beetles				DIRECTIONS FOR USE section of this
Cutworms				label.
Dectes stem borer				
European corn borer				
Fall armyworm				
False chinch bug				
Flea beetle				
Grasshoppers				
Green cloverworm				
Hornworms	· ·			
Imported cabbageworm	•			
Japanese beetle adult				
Leafhoppers				
Leafminers (adults)				
Leaf skeletonizers				
Lesser cornstalk borer	•			
Loopers				
Mexican bean beetle		1		
Pea leaf weevil				
Painted Lady (thistle) caterpillar				
Pea weevil				
Plant bug				
Saltmarsh caterpillar				
Sap beetle			*	
Seedcorn maggot (adults)				
Silverspotted skipper				
Southern armyworm				
Spittlebug				
Stink bugs	۰.			
Tarnished plant bug				
Three-cornered alfalfa hopper				
Thrips Tabasaa hudwarm				
Tobacco budworm				
Velvetbean caterpillar				
Webworms				
Western bean cutworm				
Whitefly				
Woollybear caterpillar				
Yellowstriped armyworm	·		· · · · · · · · · · · · · · · · · · ·	
Kudzu bug		0.08 to 0.10	5.12 to 6.4	
Lygus spp.				
Twospotted spider mite	•			
Whitefly				
* Use not permitted in California.				

\* Use not permitted in California.
• Do not apply more than 0.3 pound active ingredient (12.8 ounces formulated) per acre per season.
• To maintain a proper spray interval, do not make applications less than 30 days apart.
• Do not apply within 18 days of harvest.

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	DOSAG		
PEST	LB AI/A	FL OZ/A	REMARKS
Armyworms	0.033 per 0.10	2.1 to 6.4	Ground Application: Apply in water in a
Colorado potato beetle			minimum of 10.0 gal/A.
Corn earworm			Air Application: Apply in water in a
Cucumber beetles			minimum of 5.0 gal/A.
Cutworms			For control of Whiteflies, apply as a foliar
European corn borer			treatment by ground or air at rates of up
Flea beetles			to 0.4 pt (0.1 lb Al)/A at a minimum of
Leafminers			7-day intervals up to a maximum of 4
Loopers			applications. For control of Fire ants,
Pepper weevil		· ·	apply this product to the soil (at
Thrips			planting) or as a foliar treatment by
Tomato pinworm			ground or air at rates up to 0.4 pt
Tomato hornworm			(0.1 lb AI)/A at a minimum of 7-day
Whitefly			_ intervals up to a maximum of 4
Banks grass mite	0.08 to 0.10	5.12 to 6.4	applications.
Broad mite			
Carmine mite			
Fire ants			
<i>Lygus</i> spp.			
Pacific spider mite			
Twospotted spider mite			

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To maintain a proper spray interval, do not make applications less than 7 days apart.
Do not apply more than 0.4 pound active ingredient (25.6 ounces formulated) per acre per season.
Do not apply within 40 days of harvest.

## SUCCULENT PEAS AND BEANS

		DOSA	GE		
CROP	PEST	LB AI/A	FL OZ/A	REMARKS	
Pea ( <i>Pisum</i> spp.):	Aster leafhopper	0.025 to 0.10	1.6 to 6.4	Apply in a minimum of 2.0 gal	
Dwarf pea	Flea beetle			of finished spray/A by air or in a	
Edible-pod pea	Grasshoppers			minimum of 10.0 gal/A with ground	
English pea	Leafhoppers			equipment. When applying by air,	
Garden pea	Alfalfa Caterpillar	0.033 to 0.10	2.1 to 6.4	1.0 to 2.0 qt of emulsified oil may be	
Green pea	Aphids			substituted for 1.0 to 2.0 qt of water in	
Pigeon pea	Bean leaf beetle			the finished spray. Thorough coverage	
Snow pea	Beet armyworm			is essential to achieve control.	
Sugar snap pea	Cloverworm				
Bean ( <i>Phaseolus</i> spp.):	Corn earworm				
Broadbeans	Corn rootworm (adults)				
(succulent)	Cucumber beetles				
Lima bean (green)	Cutworms				
Runner bean	European corn borer				
Snap bean	Fall armyworm				
Wax bean	Japanese beetle (adults)				
Bean ( <i>Vigna</i> spp.):	Loopers				
Asparagus bean	Pea leaf weevil				
Blackeyed pea	Pea weevil				
Chinese longbean	Plant bug				
Cowpea	) Sap beetle				
Jackbean	Southern armyworm				
Moth bean	Stink bugs				
Southern pea	Tarnished plant bug				
Soybean	Thrips				
(immature seed)	Webworms				
Sword bean	Western bean cutworm				
Yardlong bean	Whitefly				
-	Yellowstriped armyworm				

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Succulent Peas And Beans cont'd.:

		DOSAGE			
CROP	PEST	LB AI/A	FL OZ/A	REMARKS	
· .	Banks grass mite	0.08 to 0.10	5.12 to 6.4		
	Carmine mite				
	Kudzu bug				
	Lygus spp.				
	Twospotted spider mite			•	
• Do not apply more than 0.	2 pound active ingredient	(12.8 ounces form	nulated) per acre	per season.	
• Do not apply within 3 days		`	,.		

## TOBACCO

· · ·	DOSAGE				
PEST		LB AI/A	FL OZ/A	REMARKS	
Armyworm spp. Cutworm spp. Mole cricket Stalkborers Tobacco flea beetle (larvae) White grubs Wireworm		0.0625 to 0.10	4.0 to 6.4	Pre-transplant soil applications: Apply 0.0625 to 0.1 lb Al/A in a minimum of 10.0 gal/A to control soil pests. Use of suitable equipment to incorporate into top 4" of the soil is required to control below ground pests. At-transplant water treatment application: Apply 0.0625 to 0.1 lb Al/A in a water treatment application volume of 10.0 to 200 gal/A.	
Aphid spp. Armyworm spp. Chinch bugs Cucumber beetle Cutworms spp. Flea beetle (adults) Grasshoppers Green bugs Japanese beetles Saltmarsh caterpillar Stink bugs Tarnished plant bugs Thrips Tobacco budworm Tobacco hornworm		0.04 to 0.10	2.56 to 6.4	Foliar applications: Apply 0.04 to 0.10 Ib Al/A/foliar application up to, and including, layby in a minimum of 10.0 gal/A.	
Whiteflies Lygus spp. Spider mites		0.10	6.4		

Do not apply more than 0.2 pound active ingredient (12.8 ounces formulated) per acre per season.
Do not apply later than layby.
May be tank mixed with other herbicides approved for tobacco use.
Do not make more than 2 foliar applications per season.

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## TOMATOES/TOMATILLO\*

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DOSAGE			
PEST	LB AI/A	FL OZ/A	REMARKS
Aphids	0.033 to 0.08	2.1 to 5.12	Ground application: Apply in water as
Armyworms Including:			necessary for insect control using a
Beet armyworm			minimum of 10.0 to 15.0 gal of finished
Fall armyworm			spray/A.
Southern yellowstriped armyworm			Air application: Apply in water in a
Bean leaf beetle			minimum of 5.0 to 50.0 gal/A.
Cabbageworm			Thorough coverage is essential to
Carmine mite			achieve control.
Cloverworm			
Corn earworm			
Corn rootworm			
Cucumber beetles			
Cutworms			
Diamondback moth			
Europoean corn borer			
Flea beetles			
Flea hoppers	1		
Grasshoppers			
Japanese beetle (adults)			
Leafhoppers			
Loopers			
<i>Lygus</i> spp.			
Melonworm			
Pea weevil			
Pea leaf weevil			
Pickleworm			
Plant bug			
Rindworms			· .
Saltmarsh caterpillar			
Sap beetle			
Seedpod weevil			
Squash bugs	· .		
Stink bug spp.			
Tarnished plant bug			
Thrips			
Tobacco Budworm			
Whitefly			
Twospotted spider mite	0.08 to 0.10	5.12 to 6.4	1

\*Not for use on Tomatillo in California unless accompanied by an approved supplemental labeling.
Do not make applications less than 10 days apart.
A maximum of 4 applications may be applied per season.
Do not apply within 1 day of harvest.

#### TREE NUTS CROPS

Such as: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan, Pistachio, and Walnut (Black and English)

A construction of the second se	DOSA	GE		
PEST	LB AI/A	FL OZ/A	REMARKS	
Black pecan aphid Codling moth Filbert worm Hickory shuckworm Leaffooted bugs Navel orangeworm	0.05 to 0.20	3.2 to 12.8	Application by ground: Apply as a dilute (minimum of 200 gal of finished spray/A) or concentrate (minimum of 50.0 gal of finished spray/A) spray in sufficient water to provide thorough coverage.	
Obliquebanded leafroller Peach twig borer Pecan leaf casebearer Pecan nut casebearer Pecan phylloxera Plant bugs Stink bugs			<b>Application by air</b> : Apply the specified dosage in a minimum of 10.0 gal of finished spray/A.	
Walnut aphid Yellow pecan aphid				
European red mite Spider mites	0.08 to 0.20	5.1 to 12.8		
Fire ants Pecan weevil	0.1 to 0.20	6.4 to 12.8		
Walnut husk fly		<u> </u>		

• Minimum Spray intervals: Apply Sniper as needed to maintain control, but do not apply at intervals sooner than 15 days.

• Observe a 21-day Pre Harvest Interval (PHI) for pecans and a 7-day Pre-Harvest Interval (PHI) for all other registered tree nut crops.

• Do not exceed 0.2 pound active ingredient (12.8 ounces formulated)/A/application; do not exceed 0.50 pound active ingredient (32.0 ounces formulated) per acre per season.

• Do not graze livestock in treated orchards or cut treated cover crops for feed.

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#### **TUBEROUS AND CORM VEGETABLES:**

Arracacha; Arrowroot; Artichoke, Chinese; Artichoke, Jerusalem; Bean, Canna, edible; Cassava, bitter and sweet; Chayote (root); Chufa; Dasheen (taro); Ginger; Leren; Potato; Sweet potato; Tanier; Turmeric; Yam; Yam, true.

	DOSAGE		
PEST	LB AI/A	FL OZ/A	REMARKS
Corn wireworm	0.15 to 0.30	9.6 to 19.2	Sniper may be applied as an in-furrow
Tobacco wireworm	(at-plant)	(at-plant)	planting time treatment for the control
Japanese beetle grubs	0.05 to 0.15	3.2 to 9.6	of Wireworms, Rootworms, and White
June beetle	(at cultivation		grubs. Apply Sniper at the rate of 0.3
Southern potato wireworm	or layby)		b AI (19.2 oz formulated)/A as an
Banded cucumber beetle	0.033 to 0.10	2.1 to 6.4	in-furrow spray or T-band spray at
Black flea beetle	(foliar)	(foliar)	planting time. Sniper may be applied as
Cucumber beetle			a layby treatment for the control of
Kudzu bug			Wireworms, Rootworms, and White
Rootworms		,	grubs. Apply Sniper to the drill area
Sugarcane beetle			and cover with soil utilizing cultivation
Sweet potato flea beetle			equipment set to throw soil to the drill
Sweet potato weevil			area. Apply Sniper as a banded spray
White grub			over the row at a rate of 0.05 to 0.15 lb
Whitefringed beetle			Al/A (3.2 to 9.6 oz formulated) in 10.0
			gal/A/spray.
			Sniper may be applied as a foliar spray
			for the control of the adult life stages of Flea beetles, Click beetles (Wireworms),
			Cucumber beetles (Rootworms), White
			fringed beetles and May/June beetles
			(White grubs).
			Apply Sniper at the rate of 0.033 to 0.1
			Ib Al/A (2.1 to 6.4 oz formulated) in a
	1		minimum of 10.0 gal of spray by
			ground and 3.0 gal of spray by air.

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• Do not make more than 2 foliar applications per season no sooner than 21 days apart.

• Do not apply more than 0.5 pound active ingredient (32.0 ounces formulated) per acre per season, including soil application.

. Do not apply within 21 days of harvest.

#### TURF (GOLF COURSES AND SOD FARMS) AND GRASS AREAS (INCLUDING GOLF COURSES, SOD FARMS, HOME LAWNS, LAWN AREAS AROUND PARKS, INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL BUILDINGS, RECREATIONAL AND ATHLETIC FIELDS)\*

Apply as a broadcast treatment. Use higher volumes up to 10.0 gallons per carrier per 1000 square feet to get uniform coverage when treating dense grass foliage.

For low water volume usage, less than 2.0 gallons per 1000 square feet, addition of a non-ionic or silicone based surfactant (0.25% by volume) is recommended. Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests such as, but not limited to, Mole crickets.

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Sniper may be applied at up to 0.32 fluid ounce per 1000 square feet to control each of the pests listed in this table. The higher application rates should be used when maximum residual control is desired or heavy pest populations occur.

PEST	FL OZ/A	FL 0Z/1000 SQ FT	LB AI/A	
Armyworms <sup>1</sup>	2.2 to 3.5	0.05 to 0.08	0.03 to 0.05	
Cutworms <sup>1</sup>				
<u>Sod webworm<sup>1</sup></u>				· · · · · · · · · · · · · · · · · · ·
Annual bluegrass weevil ( <i>Hyperodes</i> ) (adults) <sup>2</sup>	3.5 to 7.0	0.08 to 0.16	0.05 to 0.11	
Banks grass mite <sup>6</sup>			· · · ·	
Billbugs (adults) <sup>3</sup>				
Black turfgrass ataenius				
(adults) <sup>4</sup>				
Cèntipedes				
Crickets				
Earwigs				
Fleas (adults)				
Grasshoppers				
Leafhoppers				
Mealybugs	•	-		
Mites <sup>6</sup>				
Pillbugs				, ,
Sowbugs				
Ants	7.0 to 14.0	0.16 to 0.32	0.11 to 0.21	
Chinch bugs <sup>5</sup>				
Fleas (larvae) <sup>7</sup>				
Imported fire ants <sup>8</sup>	5			
Japanese beetle (adults)			ļ	
Mole cricket (adults) <sup>9</sup>				
Mole cricket (nymph) <sup>10</sup>				
<u>Ticks<sup>11</sup></u>				

DO NOT USE THIS PRODUCT ON GOLF COURSES OR SOD FARMS IN NASSAU COUNTY OR SUFFOLK COUNTY, NEW YORK. In New York State, this product may NOT be applied to any grass or turf area 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 this product if there are signs of renewed insect activity, but not sooner than 2 weeks after the first application.

#### Spray Drift Precautions (For turf uses)

Do not apply when wind conditions favor downwind drift to nearby water bodies.

Do not apply when wind velocity exceeds 10 miles per hour.

Avoid application when wind gusts approach 10 mph.

Apply using nozzles that provide the largest droplet size compatible with adequate coverage.

#### Comments

**1**Armyworms, Cutworms and Sod webworms: To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.32 fluid ounce per 1000 square feet) may be required during periods of high pest pressure.

<sup>2</sup>Annual bluegrass weevil (*Hyperodes*) adults: Applications should be timed to control adult Weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when *Forsythia* is in full bloom and concludes when Flowering dogwood (*Comus florida*) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

<sup>3</sup>Billbug adults: Applications should be made when adult Billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting Billbug adults will also provide control of over-wintered Chinch bugs.

**4Black turfgrass ataenius adults:** Applications should be made during May and July to control the first and second generation of Black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and Horse chestnut (*Aesculus hippocastanum*). The July application should be timed to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

<sup>5</sup>Chinch bugs: Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the Chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch bugs can be one of the most difficult pests to control in grasses and the higher application rates (up to 0.32 fluid ounce per 1000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

<sup>6</sup>Mites: To ensure optimal control of Eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, 5 to 7 days after the first, may be necessary to achieve acceptable control.

<sup>7</sup>Flea larvae: Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher volume application when treating these areas to ensure penetration of the insecticide into the soil. Note: if the lawn area is being treated with this product at 0.10 fluid ounce per 1000 square feet for adult Flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.

<sup>8</sup>Imported fire ants: Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Broadcast treatments should apply 0.32 fluid ounce per 1000 square feet. Mounds should be treated by diluting 0.05 fluid ounce of Sniper per gallon of water and applying 1.0 to 2.0 gallons per finished spray per mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. A four foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65 to 80 °F) or in early morning or late evening hours.

<sup>9</sup>Mole cricket adults: Achieving acceptable control of adult Mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the Mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult Mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

<sup>10</sup>Mole cricket nymphs: Grass areas that received intense adult Mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the Mole crickets closer to the soil surface where contact with the insecticide will be maximized.

<sup>11</sup>Ticks (including Ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever): Do not make spot applications. Treat the entire area where exposure to Ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Repeat application should be limited to no more than once per 7 days.

**Deer ticks (***Ixodes* **sp.)** have a complicated life cycle that ranges over a 2-year period and involves 4 life stages. Applications should be made in the late fall and/or early spring to control adult Ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults. \*This use is not permitted in California unless allowed by supplemental labeling.

Dealers Should Sell In Original Packages Only.

## STORAGE AND DISPOSAL

**PESTICIDE STORAGE:** Do not freeze. Do not store below 40 °F. If crystals are observed, warm material to above 60 °F by placing container in warm location. Shake or roll container periodically to re-dissolve solids.

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

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

**TO CONFINE SPILL:** If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at

www.acrecycle.org. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. If recycling is not available, puncture and dispose of in a sanitary landfill or incinerate or if allowed by states and local authorities, by burning. If burned stay out of smoke.

**For packages up to 5 gallons: 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 or store rinsate for later use or disposal. 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.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mixtank. 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. 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.

For packages greater than 56 gallons: 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 percent 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.

**For refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. 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 percent 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.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC - 1-800-424-9300.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**BEFORE BUYING OR USING THIS PRODUCT**, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

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