

Ms. Carroll Drapper
Control Solutions, Inc.
5903 Genoa- Red Bluff
Pasadena, Texas 77507-1041

JUL 30 2008

Dear Ms. Drapper:

Subject: Amendment- In response to February 21, 2008 letter implementing spray drift language and Permethrin RED risk mitigation labeling
Permethrin 3.2 AG II
EPA Registration Number 53883-138
Your submission dated April 7, 2008

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act section 3(c) (7)(a), is acceptable provided you:

1. Submit and/or cite all data or other material required for registration/reregistration of your product under FIFRA sec. 3(c) (5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.

2. Make the label changes listed below before you release the product for shipment bearing the amended labeling:

a. On page 3 move the paragraph beginning, "Do not apply this pesticide in a way ... etc. and ending "Do not breathe spray vapors or spray mist." to directly above the Agricultural Use Requirement Box.

b. On page 4 under Chemigation delete the precaution, "Do not apply when wind speed favors drift beyond the area intended for treatment.". The appropriate spray drift precautions are now listed on page 5.

c. Under Directions for Application and Remarks sections of the label delete the statements "Apply as needed", "Repeat as required to maintain control" "Repeat the application as necessary to maintain control." since the directions now include specific retreatment intervals. Alternatively you may reword these statements to read, "Apply when insects first appear and repeat at (add the appropriate interval) intervals as needed to provide control.

d. On page 5 under buffer zone for ULV and Non-ULV qualify the site ponds to read "natural ponds".

e. The maximum rate, retreatment and seasonal rates applies to all crops in the crop grouping, therefore on page 10 add "Chinese broccoli (gai lon, white flowering broccoli); cavalo broccoli; kohlrabi" to the box listing broccoli and "Chinese cabbage (napa), tight headed varieties only" to the box listing cabbage.

f. On page 13 delete the boxes for cantaloupes and pumpkin, watermelon, summer and winter squash and add the following bullets to cucurbit vegetables *:

. Do not make applications less than 7 days apart.

. Do not apply more than 1.2 lbs active ingredient per acre per season.

. For cantaloupes do not apply more than 0.8 pounds active ingredient per acre per season (1.2 lbs. active ingredient per acre per season in Hawaii).

g. On page 14 delete the individual boxes for celery, lettuce and spinach and add the following bullets to the bullets under Leafy Vegetables*:

. Do not make applications less than 7 days apart.

. Do not apply more than 1.0 pounds active ingredient per acre per season (1.2 lbs. active ingredient per acre per season in Hawaii).

. For spinach do not apply more than 0.6 pounds active ingredient per acre per season and do not make applications less than 3 days apart.

. For lettuce do not apply more than 0.8 pounds active ingredient per acre per season (1.2 lbs. active ingredient per acre per season in Hawaii).

h. Filberts have the same restrictions as other tree nuts, therefore under "Remarks" change the maximum seasonal application from 1.6 to .75 lbs. of active ingredient per acre per season. Also add the following limitation: "Do not make application less than 10 days apart."

i. On page 22 under Pears (Pre- Bloom) change the application rate to "8 to 10 ounces (0.2 to 0.25)". Under Remarks for Pears (dormant through delayed dormant) change the seasonal maximum application rate to 0.65 lb ai/A per season.

j. On page 22 under the Rate table for field corn change 8 fl oz and 0.2 lbs ai/A to 6 fl oz and 0.15 lbs ai/A. In the Remarks section change 6 days apart to 7 days apart.

k. On page 28 under Conifers add the prohibition "Harvesting of conifer seed is prohibited within 30 days of application.". Also under Pine Seed Orchards delete the bullet "Avoid contact with open water.". The environmental hazards section lists the appropriate prohibition with respect to application to water.

l. On page 31 change "should" to "must" in the statement "Dealers must sell in original package only."

m. In the warranty statement add "To the extent applicable by law" to the beginning of the statements, "Except as expressly provided herein ... etc" and "The exclusive remedy of any buyer ... etc."

A stamped copy of the label is enclosed for your records. Please submit three (3) copies of the amended labeling bearing the above revisions before you release the product for shipment.

Please note that acceptance of this letter does not constitute reregistration of this product.

If you have any questions you may contact Linda A. DeLuise at 703.305.5428.

Sincerely yours,

George T. LaRocca
Product Manager (13)
Insecticide Branch
Registration Division (7505P)

Enclosure

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RESTRICTED USE PESTICIDE
Due to Toxicity 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

PERMETHRIN 3.2 AG II

Active Ingredient

Permethrin*	36.8%
Other Ingredients**	63.2%
TOTAL	100.0%

*cis/trans ratio: Max. 42% (±) cis and min. 58% (±) trans

** Contains petroleum distillates.

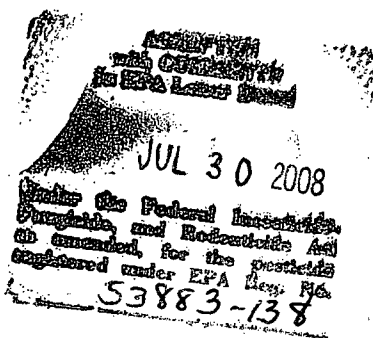
Contains 3.2 pounds permethrin per gallon as an emulsifiable concentrate.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
IF SWALLOWED	<ul style="list-style-type: none"> • 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 ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing • Rinse skin immediately with plenty of water for 15-20 minutes • Call a poison control center or doctor for treatment advice
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye • Call a poison control center or doctor for treatment advice
IF INHALED	<ul style="list-style-type: none"> • Move person to fresh air • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible • Call a poison control center or doctor for further treatment advice
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia	
FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300	

Net Contents: _____



PRECAUTIONARY STATEMENTS. Hazards to Humans & Domestic Animals

CAUTION. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Do not allow people or pets on treated surfaces until the spray has dried. Do not touch treated surfaces until the spray has dried.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton. If you want more options, follow the instructions for category E on an EPA chemical-resistant category selection chart.

Applicators using ULV cold foggers or fog/mist generators in indoor spaces must wear:

- Coveralls over long-sleeved shirt and pants
- Chemical-resistant gloves
- Chemical resistant footwear plus socks, and
- Chemical-resistant headgear, if overhead exposure

All other mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots, and flaggers
- Chemical-resistant apron for mixers/loaders, persons cleaning equipment and persons exposed to the concentrate and for handlers performing animal dip applications.

See Engineering Controls for additional requirements.

ENGINEERING CONTROLS:

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

USER SAFETY REQUIREMENTS

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

Discard clothing and other absorbent materials that have been drenched (except as required by directions for use) or heavily contaminated with products concentrate. Do not reuse them.

Environmental Hazards

This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean 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.

Under some conditions, it may also have a potential for transport into surface water in runoff (primarily absorbed to suspended soil particles), for several months or more after application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

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

If packaged in containers greater than 5 gallons:

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

Physical/Chemical Hazards

Do not use or store near heat or 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.

Do not breathe dusts, vapors, or spray mist.

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 agricultural advisor for the best alternative method of control for your area.

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 on this product that are covered by Worker Protection Standard.

Do not enter or allow worker entry to treated areas during the restricted entry interval (REI) of 12 hours.

PROHIBITION – Harvesting of conifer seed cones is prohibited within 30 days of application

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,
- Shoes plus
- Chemical resistant gloves made of any waterproof material.

Chemigation

Apply this product only through the following types of sprinkler irrigation: 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.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. For questions concerning calibration consult the equipment manufacturer or your local State Extension Service representative. A person knowledgeable of the chemigation system and responsible for its operation, or person under the supervision of the person responsible, 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, 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.

PERMETHRIN 3.2 AG II should be applied continuously for the duration of the water application. PERMETHRIN 3.2 AG II should be diluted in sufficient volume to ensure accurate application of the area to be treated. When using chemigation, a minimum of 0.1 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Commercial Impregnation and Application on Dry Bulk Fertilizers

PERMETHRIN 3.2 AG II may be impregnated on dry bulk fertilizers. When applied as directed, PERMETHRIN 3.2 AG II/dry bulk fertilizer mixtures provide insect control equal to that provided by the same rates of PERMETHRIN 3.2 AG II applied in water.

The PERMETHRIN 3.2 AG II/fertilizer mixtures may be surface applied or shallow incorporated. The higher rate should be used if incorporation is used.

Impregnation: Apply using a minimum of 200 pounds of dry bulk fertilizer per acre and up to a maximum of 450 pounds per acre with the recommended amount of PERMETHRIN 3.2 AG II per acre. Use a closed rotary-drum mixer or a similar type of closed blender equipped with suitable spray equipment. The spray nozzle(s) should be positioned to provide a uniform, fine spray pattern over the tumbling fertilizer for thorough coverage. The physical properties of fertilizers vary particularly in liquid absorption capacity. When absorptivity is sufficient, simply spray impregnation of the fertilizer with PERMETHRIN 3.2 AG II provides a satisfactory, dry mixture. If the absorptive capacity is inadequate, the use of a highly absorptive powder is required to provide a dry, flowable mixture. Microcel E (Johnson Manville Product Corporation) is a recommended absorbent powder. Generally less than 2% by weight of Microcel E is required. DO NOT impregnate PERMETHRIN 3.2 AG II onto straight coated ammonium nitrate or straight limestone because these materials will not absorb the insecticide. Dry fertilizer blends containing mixtures of ammonium nitrate or limestone may be impregnated with PERMETHRIN 3.2 AG II.

The amount of PERMETHRIN 3.2 AG II actually required in the preparation of individual fertilizer mixtures should be determined carefully for each production operation. This is necessary to ensure that the amount of pesticide actually contained in the mixture applied to the soil represents the correct rate of use. Bulk fertilizer impregnated with PERMETHRIN 3.2 AG II should be applied immediately, not stored.

All individual state regulations relating to bulk dry fertilizer blending, registration, labeling and application of the mixtures are the responsibility of the individual and/or company selling the fertilizer and PERMETHRIN 3.2 AG II mixture.

GENERAL USE INFORMATION

Important:

PERMETHRIN 3.2 AG II is toxic to fish. Exercise care when making applications near ponds, lakes, streams, reservoirs and other aquatic environments where fish are present.

For advice concerning current control practices with relation to specific local conditions, consult your local State Cooperative Extension or regulatory agencies.

PERMETHRIN 3.2 AG II is formulated as an emulsifiable concentrate (EC) formulation and is to be diluted with water and applied as an emulsion. When tank mixing as an emulsion with other products, observe all precautions and limitations on the labels of each product in the mixture.

PERMETHRIN 3.2 AG II can be tank-mixed with natural pyrethrin-containing products or Insect Growth Regulators (IGRs). Do not tank mix with dichlorvos (DDVP) or other fumigant products.

DIRECTIONS FOR APPLICATION

Unless otherwise directed by registered supplemental labeling, follow the Directions for Use in each crop group section.

PERMETHRIN 3.2 AG II is a 3.2 pounds per gallon formulation of the insecticide permethrin. Apply PERMETHRIN 3.2 AG II when insects appear or feeding is noticed. The higher rate should be used as pest populations increase. Repeat the application as necessary to maintain control. Use sufficient water to obtain full coverage. With the exception of crops listed below, rotational crops should not be planted within 60 days of last application.

BUFFER ZONE REQUIREMENTS

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 Permethrin 3.2AG II 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, NRCSW. 2000. Fort Worth, Texas. 21 pp. <http://www.in.csusda/v/technical/agronom/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, streams, marshes, 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, 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 coarse 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 coarse 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 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 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. This label must be in the possession of the user at the time of application.

RATE CONVERSION CHART

POUNDS ACTIVE PER ACRE	FORMULATION OUNCES PER ACRE
0.05	2.0
0.10	4.0
0.15	6.0
0.20	8.0
0.25	10.0
0.30	12.0
0.40	16.0

Index to Crops Listed on this Label**Vegetable Crops:**

- Artichoke
- Asparagus
- Avocado
- Cole Crops (Brassica Leafy Vegetables)
- Collards and Turnips
- Corn, Sweet
- Corn, Sweet (Florida only)
- Cucurbit Vegetables
- Eggplant
- Horseradish
- Leafy Vegetables (except Brassica)
- Onions, Bulb and Garlic
- Peppers, Bell
- Potatoes
- Tomatoes, Tomatillos

Tree Fruit and Nuts

- Almonds
- Apples
- Cherries
- Filberts
- Papaya (Florida Only)
- Peaches and Nectarines
- Pistachios
- Pears
- Walnuts

Other Crops

- Alfalfa
- Corn (Field), Field Corn Grown for Seed, Popcorn
 - Pre-emergent Use
 - Foliar Use
- Corn (Field), Field Corn Grown for Seed, Popcorn
 - At Plant Use
- Mushrooms
- Range Grass (New Mexico Only)
- Soybeans

Ornamentals

- Chrysanemum
- Conifers (Container and Field Grown)
- Ornamental Nursey Stock (Field Grown)
- Pine Seed Orchards
- Roses (Field Grown)
- Roses (Greenhouse)

Other Uses

- Premises Spray
- Treatment of Preconstruction Lumber and Logs

VEGETABLE CROPS

ARTICHOKE			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Artichoke	Artichoke plume moth Leafminers	4 – 12 (0.1 – 0.3)	Do not apply more than 5 applications or 0.9 pounds of active ingredient per acre per season.
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Applications may be made up to harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.3 RETREATMENT INTERVAL (days) - 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.9			

ASPARAGUS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Asparagus	Asparagus beetle Cutworms	2 – 4 (0.05 – 0.1)	
	Asparagus beetle Japanese beetle (Adult stage)* Lygus bugs Tarnished plant bug	4 (0.1)	Post harvest application only. Apply to the fern stage of the asparagus plant after spear harvest when larval and adult stages are present. *Not for control of this insect in California
<ul style="list-style-type: none"> Apply by ground in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Do not apply within 1 day of harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.1 RETREATMENT INTERVAL (days) - 7 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.4			

AVOCADO			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS

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Avocado	Avocado caterpillar Avocado lace bug Avocado leafhopper Avocado leafroller Avocado looper Avocado tree girdler Avocado whitefly Brown soft scale Mirids Omnivorous looper Orange tortrix Scale crawlers Spanworm Thrips Twig borers	8 (0.2)	Apply when insects first appear and repeat at 7 to 10 day intervals as needed to provide control.
<ul style="list-style-type: none"> • Apply by ground equipment in 25-400 gallons of finished spray per acre. • Do not graze livestock in treated areas. • Do not feed cover crops from treated areas to livestock. • Do not apply within 7 days of harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 RETREATMENT INTERVAL (days) - 7 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.8			

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COLE CROPS – Brassica Leafy Vegetables			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Broccoli, Chinese Broccoli (gai lan, white flowering broccoli), Brussels Sprouts; Cauliflower; Cavalo broccolo, Kohlrabi	Cabbage looper Armyworm spp. Imported cabbageworm Diamondback moth Plant bugs Thrips Cabbage aphid*	2 – 4 (0.05 – 0.1)	Apply every 5 days as needed.
Cabbage, Chinese Cabbage (napa, tight-headed varieties only)	Cabbage looper Imported cabbageworm Diamondback moth Southern white butterfly Cabbage aphid*	2 – 8 (0.05 – 0.2)	Apply every 5 – 10 days or as needed.
	Armyworm spp. Cutworms Flea beetles	4 – 8 (0.1 – 0.2)	
<ul style="list-style-type: none"> Apply by air or ground equipment, except for collards (ground application only). By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Do not apply within 1 day of harvest. <p>* Aids in the suppression only</p>			
Broccoli	MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 RETREATMENT INTERVAL (days) - 5 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.8		
Brussels Sprouts	MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.1 RETREATMENT INTERVAL (days) - 5 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.4		
Cauliflower	MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.1 RETREATMENT INTERVAL (days) - 5 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.4 (0.6 in HI)		
Cabbage	MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 RETREATMENT INTERVAL (days) - 5 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.4 (0.8 in HI)		

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COLLARDS and TURNIPS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Collards (AR, AZ, GA, IL, NC, OK, SC, and TX only)	Beet armyworm Cabbage looper Corn earworm Cutworms Diamond back moth European corn borer Fall armyworm Green cloverworm Imported cabbageworm Leafhoppers Leafminer Southern armyworm Southern white butterfly Tobacco budworm Vegetable leafminer Aphids*	2 – 6 (0.05 – 0.15)	Apply with ground equipment only. Apply as needed. Do not exceed 8 applications. AR, TX: Do not apply more than 0.45 pound of active ingredient per acre per season.
Turnips (FL, GA, IL, IN, OK, SC, TX, and WA only)	Beet armyworm Cabbage looper Corn earworm Cutworms Diamond back moth European corn borer Fall armyworm Green cloverworm Imported cabbageworm Leafhoppers Leafminer Southern armyworm Southern white butterfly Tobacco budworm Vegetable leafminer Aphids*	2 – 6 (0.05 – 0.15)	Apply with ground equipment only. Apply as needed. Do not exceed 8 applications. Do not graze treated areas or feed crop refuse to livestock. TX, IN: Do not apply more than 0.45 pound of active ingredient per acre per season. SC, GA, FL, WA: Do not apply more than 0.4 pound of active ingredient per acre per season.
<ul style="list-style-type: none"> • Apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. • Do not apply within 1 day of harvest. 			
* Aids in the suppression only			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.15			
Collards &	RETREATMENT INTERVAL (days) - 3		
Turnips	SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.45		

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CORN, SWEET			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Corn, Sweet	Corn earworm Corn rootworm beetles* Cutworms European corn borer Fall armyworm Flea beetle Hop vine borer Leafhoppers Southern armyworm Stalk borers	4 – 8 (0.1 – 0.2)	Apply every 3 - 5 days or as needed. *Pest does not occur on this crop in California
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. • Do not apply within 1 day of harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 Sweet Corn RETREATMENT INTERVAL (days) - 3 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.8			

CUCURBIT VEGETABLES			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Cucurbit vegetables*	Aphids Leafminers Squash bugs	8 (0.2)	
	Cabbage looper Cucumber beetle (adult) Cutworms Leafhoppers Melonworm Pickleworm Plant bugs (including Lygus and Stink bugs) Rindworms Squash vine borer	4 - 8 (0.1 - 0.2)	
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 4 gallons of water per acre. By ground, apply in a minimum of 20 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Applications may be made up to harvest. 			
<p>* Cucurbit vegetables include: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible) (includes hyotan, cucuzza), Luffa spp. (includes hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of Cucumia melo, including 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, C. mixta, C. pepo, acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of Citrullus spp.)</p>			
Cantaloupes	MAXIMUM RATE PER APPLICATION (lb ai/A) - 0.2		
	RETREATMENT INTERVAL (days) - 7		
(Pumpkin, Watermelon, Summer and Winter Squash)	SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) - 0.8.		
	MAXIMUM RATE PER APPLICATION (lb ai/A) - 0.2		
RETREATMENT INTERVAL (days) - 7			
SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) - 01.2			

EGGPLANT			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Eggplant	Colorado potato beetle	6 (0.15)	Apply as needed, using sufficient water to obtain uniform coverage.
	Cabbage looper Flea beetles Vegetable leafminer	4 - 6 (0.1 - 0.15)	
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Do not apply within 3 days of harvest. 			
Eggplant	MAXIMUM RATE PER APPLICATION (lb ai/A) - 0.15		
	RETREATMENT INTERVAL (days) - 7		
	SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) - 0.6 (1.0 in HI)		

HORSERADISH

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CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Horseradish	Imported crucifer weevil (Baris lepidii)	0.1% active solution (2 pt, 1 oz per 100 gallons)	As a spring preplant dip, soak sets for 30 minutes and air-dry before planting.
		8 (0.2)	For foliar application, apply with ground equipment in a minimum spray volume of 20 gallons finished spray per acre. Make up to 3 foliar applications as needed to control weevil adults during oviposition.
<ul style="list-style-type: none"> Do not apply within 30 days of harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.15 Horseradish RETREATMENT INTERVAL (days) – 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.45			

LEAFY VEGETABLES (except Brassica)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Leafy vegetables*	Aphids Beet armyworm Corn earworm Cutworms European corn borer Fall armyworm Green cloverworm Leafminers Southern armyworm Tobacco budworm	4 – 8 (0.1 – 0.2)	Apply every 7 days or as needed. For spinach. Apply every 3 days as necessary.
	Alfalfa looper Cabbage looper Leafhoppers	2 – 8 (0.05 – 0.2)	
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Do not apply within 1 day of harvest. 			
* Leafy vegetables: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Cardoon, Celery, Chinese celery, Celtuce, Chervil, Chrysanthemum (edible-leaved and garland), Corn salad, Garden Cress, Upland Cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Florence fennel (finocchio), Lettuce (including head and leaf), Orach, Parsley, Garden Purslane, Winter Purslane, Radicchio (red chicory), Rhubarb, Swiss chard, Spinach (including New Zealand and vine, Malabar spinach, Indian spinach).			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 Celery RETREATMENT INTERVAL (days) – 7 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 1.0 (1.2 in HI)			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 Lettuce RETREATMENT INTERVAL (days) – 7 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.8 (1.2 in HI)			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 Spinach RETREATMENT INTERVAL (days) – 3 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.6			

ONIONS, BULB			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS

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Onion, bulb	Armyworms Onion thrips	6 – 12 (0.15 – 0.3)	Begin applications when pest appear and repeat as necessary to maintain control. Use the higher label rates as onion thrips population increases and avoid rescue situations. Do not apply more than the recommended pounds active ingredient per acre per season.
	Cutworms Leafminers Onion maggots (adults) Stink bugs	4 – 12 (0.1 – 0.3)	
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 5 gallons of water per acre. By ground, apply in a minimum of 20 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. • Do not apply within 1 day of harvest. 			
<p>MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.3</p> <p>Onion RETREATMENT INTERVAL (days) – 7</p> <p>SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 1.0</p>			

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GARLIC			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Garlic	Armyworms Onion thrips	6 – 8 (0.15 – 0.2)	Begin applications when pest appear and repeat as necessary to maintain control. Use the higher label rates as onion thrips population increases and avoid rescue situations.
	Cutworms Leafminers Onion maggots (adults) Stink bugs	4 – 8 (0.1 – 0.2)	
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 5 gallons of water per acre. By ground, apply in a minimum of 20 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Do not apply within 1 day of harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 Garlic RETREATMENT INTERVAL (days) – 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.8			

PEPPERS, BELL			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Peppers, bell	Cabbage looper Corn earworm Cutworms Flea beetle Pepper weevil Vegetable leafminer	4 – 8 (0.1 – 0.2)	
	European corn borer	8 (0.2)	
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Do not apply within 3 days of harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 Bell Peppers RETREATMENT INTERVAL (days) – 5 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.8			

POTATOES			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS

Potatoes	Aster leafhopper Beet armyworm Cabbage looper Colorado potato beetle Cutworms European corn borer Potato aphid Potato flea beetle Potato leafhopper Potato psyllid Potato tuberworm Tarnished plant bug	4 - 8 (0.1 - 0.2)	
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. • PERMETHRIN 3.2 AG II also may be applied using refined non-volatile vegetable oil for control of listed pests. PERMETHRIN 3.2 AG II should be diluted with oil and applied in a minimum of one quart total volume per acre using equipment calibrated to give adequate coverage. Use sufficient spray volume to obtain full coverage. • Do not apply within 14 days of harvest. 			
Potatoes MAXIMUM RATE PER APPLICATION (lb ai/A) - 0.2 RETREATMENT INTERVAL (days) - 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) - 0.8			

TOMATOES, TOMATILLOS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Tomatoes Tomatillos	Beet armyworm Cabbage looper Colorado potato beetle Granulate cutworm Hornworms Southern armyworm Tomato fruitworm Tomato pinworm Vegetable leafminers	2 – 8 (0.05 – 0.2)	Do not apply to cherry tomatoes or other varieties which produce fruit less than one inch in diameter.
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. • May be applied up until harvest. 			
Tomatoes	MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 RETREATMENT INTERVAL (days) – 7 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.6 (0.8 in HI)		

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Peaches Nectarines	Green fruitworm Lesser peach tree borer Oriental fruit moth Peach twig borer Plum curculio Rose chafer Tarnished plant bug	4 – 10 (0.1 – 0.25)	Spray to wet all foliage. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.						
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 10 gallons of water per acre. By ground, apply in 25-400 gallons of finished spray per acre. • Do not apply within 14 days of harvest. 									
<table border="0" style="width: 100%;"> <tr> <td style="width: 15%;"></td> <td style="text-align: center;">MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.25</td> </tr> <tr> <td>Peaches &</td> <td style="text-align: center;">RETREATMENT INTERVAL (days) – 10</td> </tr> <tr> <td>Nectarines</td> <td style="text-align: center;">SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.75</td> </tr> </table>					MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.25	Peaches &	RETREATMENT INTERVAL (days) – 10	Nectarines	SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.75
	MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.25								
Peaches &	RETREATMENT INTERVAL (days) – 10								
Nectarines	SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.75								

PISTACHIOS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Pistachios	Leaffooted bugs Naval orangeworm Peach twig borer Plant bugs Stink bugs	8 – 12 (0.2 – 0.3)	Use sufficient water to obtain full coverage of foliage.
	Ants	12 (0.3)	Application should follow mowing of weed growth to ensure maximum coverage of the soil surface. Overhead moisture following application will enhance activity.
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 10 gallons of water per acre. By ground, apply in 25-400 gallons of finished spray per acre. • Do not apply after 10 percent hull split. • Do not graze livestock in treated areas. • Do not feed cover crops from treated areas to livestock. • May be applied up until harvest. 			
PISTACHIOS MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.3 RETREATMENT INTERVAL (days) – 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.9			

PEARS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Pears (Dormant through Delayed Dormant)	Pear psylla	8 – 16 (0.2 – 0.4)	Do not apply more than 0.8 pound of active ingredient per acre per season. May be combined with 2 to 8 gallons of spray oil per acre. Apply during the dormant through delayed dormant growth periods only.
Pears (Pre-Bloom)	Codling moth Green fruitworm Pear psylla	8 – 16 (0.2 – 0.4)	Do not apply more than 0.65 pound of active ingredient per acre per season. Pre-bloom sprays can be applied from dormant through bud burst stages.
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 10 gallons of water per acre. By ground, apply in 25-400 gallons of finished spray per acre. Use sufficient water to obtain uniform coverage. • Do not graze livestock in treated areas. • Do not feed cover crops from treated areas to livestock. 			
PEARS MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.25 RETREATMENT INTERVAL (days) – 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.65			

WALNUTS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Walnuts	Codling moth Navel orangeworm Walnut husk fly	8 – 10 (0.2 – 0.25)	Apply when insects appear. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 10 gallons of water per acre. By ground, apply in 25-400 gallons of finished spray per acre. Use sufficient water to obtain uniform coverage. • Do not apply within 1 day of harvest. 			

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Walnuts	MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.25 RETREATMENT INTERVAL (days) – 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.75
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OTHER CROPS

ALFALFA			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Alfalfa: lucerne, sainfoin, holy clover, esparcet, birdsfoot trefoil and varieties and/or hybrids of these. Alfalfa grown for seed	Alfalfa caterpillar Armyworms Blue alfalfa aphid Cutworms Green cloverworm Green peach aphid Loopers Pea aphid Spotted alfalfa aphid Velvetbean caterpillar Webworms	2 – 8 (0.05 – 0.2)	Use higher recommended dosage for increased pest pressure or for increased residual pest control. Avoid application when bees are actively foraging by applying during the early morning or during the evening hours.
	Alfalfa weevil Cucumber beetle Egyptian alfalfa weevil Meadow spittlebug Plant bugs (including <i>Lygus</i> spp.) Potato leafhopper Stink bugs	4 – 8 (0.1 – 0.2)	
<ul style="list-style-type: none"> • Apply only to fields planted to pure stands of alfalfa. • Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use higher gallonage, 5-10 gallons by air or 20 by ground, of finished spray per acre when foliage is dense and/or when pest populations are high. • May be applied up until harvest when rates of 0.1 pound per active per acre or less are used. When rates greater than 0.1 pound active per acre are used, do not apply within 14 days of harvest. 			
<p>MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2</p> <p>Alfalfa RETREATMENT INTERVAL (days) – 30</p> <p>SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.2 (per cutting)</p>			

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CORN (FIELD), FIELD CORN GROWN FOR SEED, POPCORN			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Field Corn, Field corn grown for seed, Popcorn (Pre-emergent Use)	Armyworm Cutworm Stalk borers	4 – 5 (0.1 – 0.15) as a broadcast spray	May be applied as a preplant incorporated, pre-emergence, or at planting time application. Apply in the time period from 5 days prior to planting up to emergence of the crop. Apply as a broadcast spray by ground or air or 4-15 inch band using sufficient spray volume to achieve adequate coverage. Linear row calculations should be used proportional to the standard Band Width/Row Width formula to adjust rates for different band widths or row spacings. Use higher rates of PERMETHRIN 3.2 AG II when incorporating into the soil without exceeding the recommended dosage. When using tank mixes, observe all restrictions and precautions which appear on the labels of these products. Provide constant agitation during mixing and application to keep the mixture in solution.
		OR 0.3 – 0.46 oz per 1000 linear feet row (based on a 4" band and 40" row spacing)	
Field Corn, Field Corn Grown for Seed, Popcorn (Foliar Use)	Armyworm (including Fall Armyworm) Corn borer European, Southwestern Corn earworm Corn rootworm beetles Cutworm Flea beetle Hop vine borer Stalk borers Webworms	4 – 8 (0.1 – 0.2)	Do not make treatments less than 6 days apart. When treating for stalk borers, PERMETHRIN 3.2 AG II must be applied when or shortly before the stalk borer larvae are moving into the corn from surrounding weeds and grasses. Mowing or burndown herbicide is suggested to initiate movement. For control of corn earworm, apply just before silking and continue as necessary to maintain control.
	Western bean cutworm	2 – 4 (0.05 – 0.1)	
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage. Do not apply within 30 days of harvest of grain or fodder (stover). Forage may be harvested on the day of application. 			
<p>MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.15</p> <p>Field Corn RETREATMENT INTERVAL (days) – 7</p> <p>SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.45</p>			

CORN (FIELD), FIELD CORN GROWN FOR SEED, POPCORN			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Field Corn, Field corn grown for seed, Popcorn (At Plant Use)	Armyworm Cutworm Seed corn maggot* Wireworm*	0.3 oz per 1000 linear feet of row	Apply as an in furrow, band or T-band treatment using a minimum 4" band. Use table below to determine the PERMETHRIN 3.2 AG II needs for each acre. * Not for use in California
Row Spacings (inches)		40 30 20	

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PERMETHRIN 3.2 AG II (ounces per acre)	4.0	6.0	8.0
PERMETHRIN 3.2 AG II (pounds ai per acre)	0.10	0.15	0.20

MUSHROOMS (Mushroom Houses and Adjacent Premise Areas)			
CROP	TARGET PESTS	RATE OZ (LBS AI)	REMARKS
Mushrooms (Mushroom houses and adjacent premise areas)	Mushroom flies (Sciarid and Phorid adults)	2 – 2.5 (0.05 – 0.0625)	Preparation of the building prior to fogging: (1) Close all doors, windows, and ventilators, (2) Lock or barricade all entrances, turn off pilot lights, post warning signs, and take precautions to prevent persons and animals from entering the area. Use prior to filling the house, during cool-down, during spawning, up to pinning, and between breaks. Do not use when mushrooms are present. Treat once daily as needed when flies appear. Do not make more than 20 applications prior to pinning of first break; apply no more than two applications between each break. Do not apply more than 30 applications total per crop of 5 breaks. Length of exposure time should be limited to 1 hour; then ventilate the house. Use fans to ventilate in houses that do not have forced air circulation. Wear a respirator with either an organic vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) removal cartridge or canister with any R, P or HE prefilter.
<ul style="list-style-type: none"> • Apply in 30 ounces of water or suitable diluent. Use 1 quart of solution per standard double house (35,000 cu. ft.: 8000 sq. ft.). • Apply as a fogging or aerosol treatment. • Do not apply within 3 days of harvest. • Use of high pressure hand wand prohibited in mushroom houses 			

RANGE GRASS (New Mexico Only)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Range Grass (New Mexico only)	Range caterpillar	0.4 (0.1)	Apply as needed. Do not apply more than once per year. Cattle may be present during application.
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of finished spray per acre. Use sufficient volume to obtain uniform coverage. • Do not harvest or feed hay to livestock. 			

SOYBEANS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Soybeans	Bean leaf beetle Cabbage looper Corn rootworm beetle Cutworms Flea beetle Green cloverworm Japanese beetle Mexican bean beetle Potato leafhopper Saltmarsh caterpillar (Woollybear caterpillar) Thistle caterpillar Velvetbean caterpillar	2 – 4 (0.05 – 0.2)	Do not graze treated areas or feed soybean forage or hay.
	Beet armyworm Corn earworm Soybean looper Webworms	4 – 8 (0.1 – 0.2)	
<ul style="list-style-type: none"> • Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of water per acre. • PERMETHRIN 3.2 AG II may also be applied using refined non-volatile vegetable oil for control of listed pests. PERMETHRIN 3.2 AG II should be diluted with oil and applied in a minimum of 1 quart total volume per acre using equipment calibrated to give adequate coverage. When applying in water by aircraft, 1 quart of oil may be substituted for 1 quart of water per gallon of finished spray. • Do not apply within 60 days of harvest. 			
MAXIMUM RATE PER APPLICATION (lb ai/A) – 0.2 Soybeans RETREATMENT INTERVAL (days) – 10 SEASONAL MAXIMUM APPLICATION RATE (lb ai/A) – 0.4			

ORNAMENTALS

CHRYSANTHEMUMS			
CROP	TARGET PESTS	RATE OZ (LBS AI)	REMARKS
Chrysanthemums	Liriomyza leafminer flies	20 (0.5) per 100 gallons of water (1 teaspoon per gallon)	Avoid spraying the blooms. May be applied on a weekly schedule.

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- Caution: PERMETHRIN 3.2 AG II has demonstrated excellent plant safety; however, not all cultivars have been tested. Before treating large numbers of plants of a particular cultivar, treat a few plants and observe prior to full-scale application.

CONIFERS (Container and Field Grown)

CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Conifers (container and field grown)	Nantucket pine tip moth	4 – 8 (0.1 – 0.2)	Begin application when the adults appear and repeat at 5 to 7 day intervals or as needed throughout the season.

- PERMETHRIN 3.2 AG II may be diluted in a non-volatile vegetable oil or water in a minimum of 1 gallon of finished spray per acre using equipment calibrated to give adequate coverage.

ORNAMENTAL NURSERY STOCK (Field Grown)

CROP	TARGET PESTS	RATE OZ (LBS AI)	REMARKS
Ornamental nursery stock (field grown)	Bagworm Beet armyworm Cabbage looper Citrus thrips Lace bug Leafhoppers Leafminers Whiteflies	4 – 8 (0.1 – 0.2) per 100 gallons of water	PERMETHRIN 3.2 AG II may be used to control specified pests on non-edible ornamentals and non-bearing plants of fruiting species.

- Caution: Marginal leaf burn may occur on Salvia, Dieffenbachia and Pteris Fern. Application to blooming plants may cause browning of petals.
- PERMETHRIN 3.2 AG II has demonstrated excellent plant safety; however, not all species and cultivars have been tested. Before treating large numbers of plants of a particular variety, treat a few plants and observe prior to full-scale application.

PINE SEED ORCHARDS

CROP	TARGET PESTS	RATE OZ	REMARKS
Pine seed orchards	Coneworms Seed bugs	8 in 100 gallons of water (0.025% dilution by weight)	For high volume sprayers, apply 5 to 10 gallons of finished spray per tree.
		42 in 100 gallons of water (0.125% dilution by weight)	For low volume sprayers, apply 100 gallons per tree.
		30 per acre	For aerial application, use in not less than 10 gallons of water.

To control webbing coneworm – make first application within 1 week of female flower closure or peak pollen flight.
To control other coneworms and seed bugs – make first application within 30 days following female flower closure.
Repeat applications at 4 week intervals, but do not apply more than 6 applications.

- Do not graze livestock in treated areas.
- Do not feed cover crops from treated areas to livestock.
- Avoid contact with open water.

ROSES (Field Grown)

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CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	REMARKS
Roses (field grown)	Heliothis spp.	4 - 8 (0.1 - 0.2)	
<ul style="list-style-type: none"> Apply by air or ground equipment. By air, apply in a minimum of 2 gallons of water per acre. By ground, apply in a minimum of 10 gallons of finished spray per acre. 			

ROSES (Greenhouse)			
CROP	TARGET PESTS	RATE OZ (LBS AI)	REMARKS
Roses (greenhouse)	Beet armyworm Cabbage looper Omnivorous leafroller	8 (0.2) per 100 gallons of water	
<ul style="list-style-type: none"> PERMETHRIN 3.2 AG II is not phytotoxic to the following varieties of greenhouse roses: Ballena, Bettina, Cara Mia, Coquette, Excitement, Forever Yours, G. Wave, Jack Frost, Jr. Bridesmaid, Matador, Paul's Pink, Samantha, Seventeen, Sonia, Town Crier, Tropicana and Visa. Other varieties may vary in their sensitivity to PERMETHRIN 3.2 AG II, and a small number of plants should be treated under local conditions to determine plant safety prior to commercial use. 			

OTHER USES

PREMISES SPRAY (For Agricultural Use Only)			
SITE	TARGET PESTS	RATE OZ	REMARKS
For Application In: Dairies, Barns, Feedlots, Stables, Poultry houses, Swine and Livestock houses	House flies, Stable flies and other manure breeding flies Also aids in the reduction of Cockroaches, Mosquitoes and Spiders	4 to 12.5 gallons of water Sprayer: apply 1 gallon per 750 sq. ft. of space	Spray directly to walls and ceiling as residual surface treatment only. Re-treat as necessary, but not more often than once every 2 weeks. Do not treat manure or litter.
<ul style="list-style-type: none"> The use of any residual fly spray should be supplemental with proper manure management and general sanitation to reduce or eliminate fly breeding sites. Do not apply directly to livestock or poultry. Avoid contamination of feed and water. 			

TREATMENT OF PRECONSTRUCTION LUMBER AND LOGS

General Information

PERMETHRIN 3.2 AG II should be diluted with water. To prepare the spray, dilute PERMETHRIN 3.2 AG II as shown in the following spray dilution chart:

	GALLONS OF PERMETHRIN	GALLONS OF PERMETHRIN	GALLONS OF PERMETHRIN
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GALLONS OF SPRAY MIXTURE DESIRED	3.2 AG II FOR 0.5% SOLUTION	3.2 AG II FOR 0.75% SOLUTION	3.2 AG II FOR 1.0% SOLUTION
40	½	¾	1
80	1	1½	2
200	2½	3¾	5
400	5	7½	10
800	10	15	20

Directions for Application

To protect unseasoned lumber and logs from wood destroying insects, such as Termites, Carpenter Ants and Beetles (Ambrosia, Powder-post, Old house borers and others), totally treat wood with a 0.5% to 1.0% solution of PERMETHRIN 3.2 AG II. This solution can be applied by various methods including spraying, brushing, dipping, and pressure treatment. Frequent monitoring of dip and pressure systems are necessary to insure that the desired level of PERMETHRIN 3.2 AG II is maintained. Wood can be handled after treatment when dry.

1. For dip treatments, the wood should be totally submersed in the solution until thoroughly wet and then allowed to dry in a suitable location. Dipping solutions to which PERMETHRIN 3.2 AG II has been added should be agitated before use if left unused for long periods of time. Sediment, debris and other deposits should be periodically cleaned from the tank.
2. For pressure treatments the wood should be placed in the treatment chamber, the PERMETHRIN 3.2 AG II solution added and the system pressurized up to 250 psi for up to one hour depending on the density and type of wood treated. After the pressure is released and the system drained, the wood should be placed in a suitable location for drying.
3. For spray treatments, the wood should be sprayed thoroughly including back and ends.
4. For brush treatments, all parts of wood surfaces should be thoroughly treated.

STORAGE AND DISPOSAL**Pesticide Storage**

Do not store below 10°F, (-12°).

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 Metal or Plastic Container (5 Gallon or less). Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a tank or store for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not cut or weld metal containers.

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Nonrefillable Metal or Plastic Container (Greater than 5 gallon). Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a tank or store for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not cut or weld metal containers

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

ATTENTION**Dealers Should Sell in Original Packages Only.**

WARRANTY STATEMENT

Control Solutions, Inc. warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Control Solutions, Inc. To the extent allowed by applicable law Control Solutions, Inc. shall in no event be liable for consequential, special, or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. In addition to the foregoing, no purchaser of this product (other than an end user) shall be entitled to any reimbursement for any loss suffered as a result of any suspension or cancellation of the registration for this product by the U.S. Environmental Protection Agency. Except, as expressly provided herein, Control Solutions, Inc. makes no warranties, guarantees, or representations of any kind, either expressed or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including, but not limited to merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damage resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall be damages not exceeding the purchase price paid for this product or, at Control Solutions, Inc. election, the replacement of this product.

Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507-1041

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