U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460	EPA Reg. Number: 69361-45	Date of Issuance: 10/07/2014
NOTICE OF PESTICIDE: <u>X</u> Registration Reregistration	Term of Issuance: Conditional	
(under FIFRĂ, as amended)	Name of Pesticide Product: Permethrin AG	
Name and Address of Registrant (include ZIP Code): Madhu Mandava Agent for Repar Corporation c/o Mandava Associates, LLC 6860 N. Dallas Parkway, Suite 200 Plano, TX 75024		
Note: Changes in labeling differing in substance from that accepted in connection with this registration Registration Division prior to use of the label in commerce. In any correspondence on this product a		
 On the basis of information furnished by the registrant, the above n under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or record Agency. In order to protect health and the environment, the Adminitime suspend or cancel the registration of a pesticide in accordance name in connection with the registration of a product under this Accregistrant a right to exclusive use of the name or to its use if it has be This product is conditionally registered in accordance with FIFRA comply with the following conditions: 1. Submit and/or cite all data required for registration/reregistration/reregistration/reregistration. 	ommendation of the istrator, on his model with the Act. The tis not to be constructed by other section 3(c)(7)(A) ation/registration nts of similar procession of the section for the section	his product by the otion, may at any e acceptance of any trued as giving the thers. b. You must review of your
Signature of Approving Official:	Date:	
Richard Gebken Product Manager 10 Insecticide Branch Registration Division (7505P)	10/07/2014	
EPA Form 8570-6		

Page 2 of 2 EPA Reg. No. 69361-45 Decision No. 487057

- 2. You are required to comply with the DCI Order identified below:
 - a. Permethrin GDCI-109701-1281, issued on 02/26/2013
 - b. Permethrin GDCI-109701-1113, issued on 02/01/2012

You must comply with all of the data requirements within the deadlines established by the order. If you have questions about the Generic DCI orders listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: http://www.epa.gov/oppsrt1/contacts_prd.htm

- 3. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.
- 4. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 69361-45."
- 5. Submit one copy of the final printed label for the record before you release the product for shipment.

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

- Basic CSF dated 11/19/2013
- Alternate CSF dated 11/19/2013

If you have any questions, please contact Mr. Driss Benmhend, at (703) 308-9525 or via email at <u>benmhend.driss@epa.gov</u>.

Sincerely,

Richard J. Ceek

Richard Gebken Product Manager 10 Insecticide Branch Office of Pesticide Programs Date: October 7, 2014

Enclosure: Label Stamped "accepted"

ACCEPTED

10/07/2014

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the

69361-45

pesticide registered under

EPA Reg. No.

RESTRICTED USE PESTICIDE

DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS AND ACUTE PRIMARY SKIN IRRITATION. 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 AG

ACTIVE INGREDIENT:	
Permethrin*	
OTHER INGREDIENTS:**	<u>62.0%</u>
TOTAL:	

*cis/trans ratio: Max. 55% (+/-) cis and min. 45% (+/-) trans

** Contains Petroleum Distillates.

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

See Back/Side Panel for Additional Precautionary Statements

	FIRST AID	
IF ON SKIN OR	Take off contaminated clothing.	
CLOTHING	 Rinse skin immediately with plenty of water for 15-20 minutes. 	
	Call a poison control center or doctor for treatment advice.	
IF	 Immediately call a poison control center or doctor. 	
SWALLOWED	• Do not induce vomiting unless told to do so by the poison control center or doctor.	
	 Do not give any liquid to the person. 	
	 Do not give anything by mouth to an unconscious person. 	
IF INHALED	Move person to fresh air.	
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration,	
	preferably by mouth-to-mouth, if possible.	
	Call a poison control center or doctor for further treatment advice.	
IF IN EYES	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. 	
	• Remove contact lenses if present, after the first 5 minutes, then continue rinsing eye.	
	Call a poison control center or doctor for treatment advice.	
Have the product of	container or label with you when calling a poison control center or doctor, or going for	
treatment. You ma	y also contact 1-800-222-1222 or 1-800-900-4044 for emergency medical treatment	
information.		
NOTE TO PHYSICIAN: This product contains petroleum distillates. May pose an aspiration pneumonia hazard.		
Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is controlled		
removal of exposu	re followed by symptomatic and supportive care.	

Repar Corporation P. O. Box 4321 Silver Spring, MD 20914

EPA Reg. No.: Net Contents: EPA Est. No.:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING: Causes skin irritation. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Do not get on skin or clothing. Avoid contact with eyes. Avoid breathing spray mist or vapor. Wear coveralls over short sleeved shirt and short pants, chemical resistant footwear and socks, chemical resistant gloves (barrier laminate or Viton, selection category G). When mixing and loading wear a chemical resistant apron. For overhead exposure wear chemical resistant headgear. When cleaning equipment add a chemical resistant apron.

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 G on an EPA chemical-resistance category selection chart.

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

- Coveralls over long-sleeved shirt and long 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.

See Engineering Controls for additional requirements.

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 this product's concentrate. Do not reuse them.

Engineering Control Statement

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 RECOMMENDATIONS:

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

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to 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 high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

Under some conditions, it may also have a potential for transport into surface water in runoff (primarily adsorbed to suspended soil particles), for several months or more after application. These include poorly draining 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 areas.

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 OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE RESTRICTED USE PESTICIDE

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

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

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience

difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

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

AGRICULTURAL USE REQUIREMENTS

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

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

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 socks,
- Chemical-resistant gloves such as Barrier Laminate or Viton.

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.

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

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

The pesticide injection pipeline must also contain a functional, 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.

This product should be applied continuously for the duration of the water application. This product should be diluted in sufficient volume to ensure accurate application over 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 then desirable control.

Commercial Impregnation and Application of Permethrin on Dry Bulk Fertilizers

This product may be impregnated on dry bulk fertilizers. When applied as directed, this product and dry bulk fertilizer mixtures provide insect control equal to that provided by the same rates of this product applied in water.

This product and 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 Perm as tar AG Agricultural Insecticide 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 absorptive capacity. When absorptivity is sufficient, simple spray impregnation of the fertilizer with this product 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. DO NOT impregnate this product 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 this product.

The amount of this product 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 pesticides actually contained in the mixture applied to the soil represents the correct rate of use. Bulk fertilizer impregnated with this product 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 this product mixture.

GENERAL PRECAUTIONS AND RESTRICTIONS BUFFER ZONES

A. Vegetative Buffer Strips

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; marches or natural ponds, estuaries, and commercial fish farm ponds).

Only apply products containing this product 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. http://www.in.nrcs.gov/technical/agronomy/newconbuf.pdf

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)

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

Buffer Zone for UL V Aerial Application

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

Buffer Zone for Non-ULV Aerial Application

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

B. 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-UL V aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use 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 air blast 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% of the 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 cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

GENERAL INSTRUCTIONS

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

This product is 3.2 pounds per gallon formulation of the insecticide permethrin. Apply this product 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. This product may be applied by both ground and aerial equipment. Use sufficient water to obtain full coverage. With the exception of crops listed below, do not rotate other crops within 60 days of last application.

This label must be in the possession of the user at the time of application.

Insects Controlled	Rate of Application	Method of Application
Alfalfa Caterpillar Armyworms Blue Alfalfa Aphid Cutworms Green Cloverworm Green Peach Aphid Loopers Pea Aphid Spotted Alfalfa Aphid Velvetbean Caterpillar Webworms	2 to 8 ozs. (0.05 to 0.2 pound active) Per acre	Use higher recommended dosage for increased pest pressure or for increased residual pest control. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or 2 gallons of finished spray per acre by aircraft. A second application per cutting may be made as long as the minimum interval between applications is 30 days and the maximum product applied per cutting
Alfalfa Weevil Cucumber Beetle Egyptian Alfalfa Weevil Meadow Spittlebug Plant Bugs (including <i>Lygus</i> spp.) Potato Leafhopper Stink Bugs	4 to 8 ozs. (0.1 to 0.2 pound active) Per acre	does not exceed 0.2 pound active ingredient (8 oz. product).
Do not apply more than 0.2 pound active ingredient (8 oz product) per cutting. *When rates greater than 0.1 pound active per acre are used, do not apply within 14 days of harvest. Do not apply to mixed stands with intentionally grown forage grasses and/or legumes.		

Alfalfa: Forage; Hay (0 day phi)* (Includes Lucerne, sainfoin, holy clover, esparcet, birdsfoot trefoil and varieties and/or hybrids of these)

Almonds (7 day phi)

Insects Controlled	Rate of Application	Method of Application
Navel Orangeworm		Apply when insects appear. Apply in a minimum of 15
Peach Twig Borer	8 to 10 ozs.	gallons of finished spray per acre by aircraft or 25-400
	(0.2 to 0.25 pound	gallons of finished spray per acre with ground
	active)	equipment.
	Per acre	If additional applications are required for control, the
		minimum interval between applications is 10 days.
Ants		Apply by ground equipment in a minimum of 15 gallons
		of finished spray per acre. Application should follow
	10 ozs.	mowing of weed growth to insure maximum coverage
	(0.25 pound active)	of the soil surface. Overhead moisture following
	Per acre	application will enhance activity. If additional
		applications are required for control, the minimum
		interval between applications is 10 days.
Do not apply more than 0.75 pound active ingredient (30 oz product) per acre per season.		
Do not graze livestock in treated areas.		
Do not feed cover cro	ops from treated areas to	livestock.

Apples

Insects Controlled	Rate of Application	Method of Application
Green Fruitworm Oblique Banded Leafroller Plum Curculio Redbanded Leafroller Rosy Apple Aphid Spotted Tentiform Leafminer Tarnished Plant Bug White Apple Leafhopper	4 to 10 ozs. (0.1 to 0.25 pound active) Per acre	Use with ground equipment only. Apply in 25- 400 gallons of finished spray per acre when insects first appear and repeat as required to maintain control. If additional applications are required for control, the minimum interval between applications is 10 days.
Do not apply more than 0.5 pound active ingredient (20 oz product) per acre per season. Do not apply after petal fall. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.		

Artichoke (0 day phi)

Insects Controlled	Rate of Application	Method of Application
Artichoke Plum Moth Leafminer	4 to 12 ozs. (0.1 to 0.3 pound active) Per acre	Apply with ground equipment in a minimum of 10 gallons finished spray per acre or in a minimum of 2 gallons per acre by aircraft. Apply as needed. Buds may be harvested on the day of application. If additional applications are required for control, the minimum interval between applications is 10 days.
Do not apply more than 0.9 pound active ingredient (36 oz product) per acre per season.		
Do not apply more than 5	applications per acre per sea	son.

Asparagus (1 day phi)

Insects Controlled	Rate of Application	Method of Application
Asparagus Beetle	2 to 4 ozs.	Apply with ground equipment in a minimum of 10
Cutworms	(0.05 to 0.1 pound	gallons of finished spray per acre.
	active)	If additional applications are required for control, the
	Per acre	minimum interval between applications is 7 days.
Asparagus Beetle Japanese Beetle(Adult Stage)* Lygus Bugs Tarnished Plant Bug	4 ozs. (0.1 pound active) Per acre	For post-harvest application, apply to the fern stage of the asparagus plant after spear harvest when larval and adult stages are present. If additional applications are required for control, the minimum interval between applications is 7 days. *Not for control of this insect in California
Do not apply more than 0.4 pound per active ingredient (16 oz product) per acre per season		

Avocado (7 day phi)

Insects Controlled	Rate of Application	Method of Application
Avocado Caterpillar		Apply with ground equipment in 25-400 gallons
Avocado Lace Bug		of finished spray per acre. Apply when insects
Avocado Leafhopper		first appear and repeat applications to maintain
Avocado Leafroller		control. The minimum interval between
Avocado Looper		applications is 7 days.
Avocado Tree Girdler		
Avocado Whitefly	8 ozs.	
Brown Soft Scale	(0.2 pound active)	
Mirids	Per acre	
Omnivorous Looper		
Orange Tortrix		
Scale Crawlers		
Spanworm		
Thrips		
Twig Borers		
Do not apply more than 0.8 pounds active ingredient (32 oz product) per acre per season.		
Do not graze livestock in treated areas.		
Do not feed cover crops from	n treated areas to livestock	κ.

Broccoli; Chinese Broccoli (gai lon, white flowering broccoli); Cavalo broccoli (1day phi)

Insects Controlled	Rate of Application	Method of Application
Armyworm spp.		Apply with ground equipment in a minimum of
Cabbage Looper	2 to 8 ozs.	10 gallons of finished spray per acre or in a
Diamondback Moth	(0.05 to 0.2 pound	minimum of 2 gallons per acre by aircraft. Apply
Imported Cabbageworm	active)	as needed for control but no sooner than 5 day
Plant Bugs	Per acre	intervals.
Thrips		
Do not apply more than 0.8 pounds active ingredient (32 oz product) per acre per season.		

Brussels Sprouts

Insects Controlled	Rate of Application	Method of Application
Armyworm spp.		Apply with ground equipment in a minimum of
Cabbage Looper	2 to 4 ozs.	10 gallons of finished spray per acre or in a
Diamondback Moth	(0.05 to 0.1 pound	minimum of 2 gallons per acre by aircraft. Apply
Imported Cabbageworm	active)	as needed for control but no sooner than 5 day
Plant Bugs	Per acre	intervals.
Thrips		
Do not apply more than 0.4 pounds active ingredient (16 oz product) per acre per season.		

Cauliflower

Insects Controlled	Rate of Application	Method of Application
Armyworm spp.		Apply with ground equipment in a minimum of
Cabbage Looper	2 to 4 ozs.	10 gallons of finished spray per acre or in a
Diamondback Moth	(0.05 to 0.1 pound	minimum of 2 gallons per acre by aircraft. Apply
Imported Cabbageworm	active)	as needed for control but no sooner than 5 day
Plant Bugs	Per acre	intervals.
Thrips		
In all states but Hawaii, do r	not apply more than 0.4 po	unds active ingredient (16 oz product) per acre
per season. In Hawaii, do not apply more than 0.6 pound active ingredient (24 oz product) per acre per		
season.		

Cabbage; Cabbage, Chinese (napa) (tight-heading varieties only) (1 day phi)

Insects Controlled	Rate of Application	Method of Application
Cabbage Looper	2 to 8 ozs.	Apply with ground equipment in a minimum of 10
Diamondback Moth	(0.05 to 0.2 pound	gallons per acre or in a minimum of 2 gallons per
Imported Cabbageworm	active)	acre by aircraft. Apply as needed for control but no
Southern White Butterfly	Per acre	sooner than 5 day intervals up to a seasonal
Armyworm spp.	4 to 8 ozs.	maximum of 0.4 lb ai/A (16 oz formulated product).
Cutworms	(0.1 to 0.2 pound	[In Hawaii apply up to 0.8lb ai/A (32 oz formulated
Flea Beetles	active)	product)].
	Per acre	
In all states but Hawaii, do not apply more than 0.4 pound active ingredient (16 oz product) per acre per		

In all states but Hawaii, do not apply more than 0.4 pound active ingredient (16 oz product) per acre per season. In Hawaii, do not apply more than 0.8 pound active ingredient (32 oz product) per acre per season.

Cherries (includes Sweet Cherries and Tart Cherries) (3 day phi)

Insects Controlled	Rate of Application	Method of Application	
Green Fruitworm Lesser Peach Tree Borer Plum Curculio Redbanded Leafroller Rose Chafer Tarnished Plant Bug	4 to 8 ozs. (0.1 to 0.2 pound active) Per acre	Use this product as a dilute spray. Apply when insects appear. Apply with ground equipment in 25-400 gallons of finished spray per acre. If additional applications are required for control, the minimum interval between applications is 10 days.	
Do not apply more than 0.6 pound active ingredient (24 oz product) per acre per season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.			

East of the Rockies, do not exceed 6 applications per season, with no more than 4 applications after petal fall.

West of the Rockies, do not apply more than 4 applications per season, with no more than 3 applications after petal fall.

Chrysanthemums

Insects Controlled	Rate of Application	Method of Application	
Liriomyza Leafminer Fliers	20 fluid ozs.	Avoid spraying the blooms.	
	(0.5 pound active) CAUTION: Before treating large number		
	Per 100 gallons plants of a particular cultivar, treat a few plant		
(1 teaspoon per gallon) and observe prior to full scale application.			
Spoons must not be used for food purposes after use in measuring pesticides.			

Collards and Turnip Greens (1 day phi)

Insects Controlled	Rate of Application	Method of Application
Beet Armyworm		Apply with ground equipment only. Apply with
Cabbage Looper		ground equipment in a minimum spray volume
Corn Earworm		of 10 gallons of finished spray per acre. Apply as
Cutworms		needed for control but no sooner than 3 day
Diamondback Moth		intervals.
European Corn Borer		
Fall Armyworm	2 to 6 ozs.	
Green Cloverworm	(0.05 to 0.15 pound	
Imported Cabbageworm	active)	
Leafhoppers	Per acre	
Leafminers		
Southern Armyworm		
Southern White Butterfly		
Tobacco Budworm		
Vegetable Leafminer		
Aphids *		
For use on Collards in AR, AZ	Z, GA, IL, NC, OK, SC, and TX	and on Turnip Greens in FL, GA,
IL, IN, OK, SC, TX, and W A.		
Do not apply more than 0.45	5 pound active ingredient (2	18 oz product) per acre per season.
* Suppression only.		

Conifers (Container and Field Grown)

Insects Controlled	Rate of Application	Method of Application
Nantucket Pine Tip Moth	4 to 8 ozs. (0.1 to 0.2 pound active) Per acre	This product 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. Begin application when the adults appear and repeat at 5 to 7 day intervals or as needed throughout the season.

Corn (Field), Popcorn

Insects Controlled	Rate of Application	Method of Application
Preemergent Use:	4 to 6 ozs.	This product may be applied as a preplant
Armyworms	(0.1 to 0.15 pound active)	incorporated, preemergence, or at planting
Cutworms	Per acre as a broadcast	time application. Apply as a broadcast spray by
Stalk Borers	spray OR	ground or air (minimum of 2 gallons finished spray per acre by air) or 4-15 inch band using
	0.3 to 0.5 ozs. Per 1,000	sufficient spray volume to achieve adequate
	linear row feet (based on	coverage.
	4" band and 40" row	
	spacing)	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 this
		product 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.
Foliar Use:	4 to 6 ozs.	When treating for Stalk Borers, this product
Armyworm (including Fall Armyworm)	(0.1 to 0.15 pound active) Per acre	must be applied when or shortly before the
Corn Borer	Peracre	Stalk Borer larvae are moving into the corn from surrounding weeds and grasses. Mowing
European		or burndown herbicides are suggested to
Southwestern		initiate movement. For control of Corn
Corn Earworm		Earworm, apply just before silking and continue
Corn Rootworm Beetles		as necessary to maintain control. Apply a
Cutworms		minimum of 2 gallons of finished spray per acre
Flea Beetle		by air or 10 gallons per acre with ground
Hop Vine Borer		equipment. The minimum interval between
Stalk Borers		spray applications is 7 days.
Webworms Foliar Use:	2 to 4 ozs.	
Western Bean Cutworm	2 to 4 ozs. (0.05 to 0.1 pound active)	
	Per acre	
Do not apply more than 0.4		L8 oz product) per acre per season.
Do not apply less than 30 days prior to harvest of grain or fodder (stover).		
Forage may be harvested on the day of application.		

Corn (Field), Popcorn (At Plant Use)

Insects Controlled	Rate of Application Method of Application	
Armyworms	0.3 ozs per 1,000	Apply as an in-furrow, band, or T-band treatment
Cutworms	linear feet of row	using a minimum 4" band. Use the table below to
Seed Corn Maggot*		determine the product needs for each acre.

Wireworm* *Not for use in California				
Row Spacings (inches)	40	30	20	
Product (pounds ai/acre)	0.10	0.15	0.15	
Product (formulated ozs./acre)	4.0	6.0	6.0	

Corn, Sweet (1 day phi)

Insects Controlled	Rate of Application	Method of Application
Corn Earworm		Apply every 3 to 5 days or as needed but no
Corn Rootworm Beetles*		sooner than every 3 days.
European Corn Borer		
Fall Armyworm	4 to 8 ozs.	Apply with ground equipment in a minimum of
Flea Beetle	(0.1 to 0.2 pound active)	10 gallons of finished spray per acre or in a
Hop Vine Borer	Per acre	minimum of 2 gallons per acre by aircraft.
Leafhoppers		
Southern Armyworm		*Pest does not occur on this crop in California.
Stalk Borers		
Do not apply more than 0.8	pounds active ingredient (3	2 oz product) per acre per season.

Corn, Sweet (Florida Only)

Insects Controlled	Rate of Application	Method of Application
Aster Leafhopper		Apply every 3 to 5 days or as needed but no
Corn Earworm		sooner than every 3 days.
Cutworm	4 to 8 ozs.	
European Corn Borer	(0.1 to 0.2 pound active)	Apply with ground equipment in a minimum of
Fall Armyworm	Per acre 10 gallons of finished spray per acre or in a	
Southern Armyworm		minimum of 2 gallons per acre by aircraft.
Do not apply more than 0.8 pounds active ingredient (32 oz product) per acre per season.		

Cucurbit Vegetables (0 day phi): Chayote (fruit) (Sechium edule); Chinese waxgourd (Chinese preserving melon) (Bernincasa hispida); Citron melon (Citrullus lanatus var. citroides);Cucumber (Cucumis sativus); Gherkin (Cucumisanguria); Gourd, edible (Lagenaria spp.) (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 Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); Pumpkin (Cucurbita spp.); Squash, Summer (Cucurbita pepo var. melopepo) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash, winter (Cucurbita maxima; C. moshata) (includes butternut squash, calabaza, hubbard squash); (c. mixta; C. pepo) (includes acorn squash, spaghetti squash); Watermelon (includes hybrids and/or varieties of Citrullus spp .).

Insects Controlled	Rate of Application	Method of Application
Aphids	8 ozs.	Apply with ground equipment in a minimum spray
Leafminers	(0.2 pound active)	volume of 20 gallons of finished spray per acre or in
Squash Bug	Per acre	a minimum of 4 gallons per acre by aircraft.

Cabbage Looper		If additional applications are required for control,
Cucumber Beetle (adults)		the minimum interval between applications is 7
Cutworms		days.
Leafhoppers	4 to 8 ozs.	
Melonworm	(0.1 to 0.2 pound	
Pickleworm	active)	
Plant Bugs (including Lygus	Per acre	
And Stink Bugs)		
Rindworms		
Squash Vine Borer		

Cantaloupes - In all states but Hawaii, do not apply more than 0.8 pound active ingredient (32 oz product) per acre per season. In Hawaii, do not apply more than 1.2 pounds active ingredient (48 oz product) per acre per season.

All Other Crops - Do not apply more than 1.2 pounds active ingredient (48 oz product) per acre per season. Applications may be made up to harvest.

Eggplants (3 day phi)

Insects Controlled	Rate of Application	Method of Application
Colorado Potato Beetle	6 ozs.	Apply with ground equipment in a minimum of 10
	(0.15 pound active)	gallons of finished spray per acre or a minimum of 2
	Per acre	gallons by aircraft. Apply using sufficient water to
Cabbage Looper	4 to 6 ozs.	obtain uniform coverage. If additional applications
Flea Beetle	(0.1 to 0.15 pound	are required for control, the minimum interval
Vegetable Leafminer	active)	between applications is 7 days.
	Per acre	
In all states but Hawaii, do not apply more than 0.6 pound active ingredient (24 oz product) per acre per		

season. In Hawaii, do not apply more than 1.0 pound active ingredient (40 oz product) per acre per season.

Filberts (14 day phi)

Insects Controlled	Rate of Application	Method of Application
Filbertworm Oblique Banded Leafroller	8 to 10 ozs. (0.2 to 0.25 pound active) Per acre	For full coverage application apply 0.05 to 0.0625 pound active per 100 gallons (based on 400 gallons finished spray per acre) and spray run-off, OR for low volume concentrate application apply 0.2 to 0.25 pound active per acre (50 to 200 gallons finished spray per acre). For aerial application apply 0.2 to 0.25 pound active in a minimum of 10 gallons of finished spray per acre. Apply when insects appear but do not retreat any sooner than a minimum of 10 days.
Do not apply more than 0.75 pounds active ingredient (30 oz product) per acre per season.		
Do not graze livestock in treated areas.		
Do not feed cover crops from treated areas to livestock.		

Horseradish (30 day phi)

Insects Controlled	Rate of Application	Method of Application
Imported Crucifer	0.1% active solution (2	As spring preplant dip, soak sets for 30 minutes and
Weevil (Baris lepidii)	pints, 1 oz. of this	air-dry before planting.
	product per 100	
	gallons)	
	6 ozs. (0.15 pound active) Per acre	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. The minimum interval between applications is 10 days.
Do not apply more than 0.45 pounds active ingredient (18 oz product) per acre per season.		

Leafy Vegetables (except Brassica) (1 day phi): Amaranth (leafy amaranth, Chinese spinach, tampala); Arugula (Roquette); Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum, edible-leaved and garland; Corn salad; Cress, garden; Cress, upland (yellow rocket, winter cress); Dandelion; Dock (sorrel); Endive (escarole); Fennel, Florence (finochio); Lettuce, head and leaf; Orach; Parsley; Purslane, garden; Purslane, winter; Radicchio (red chicory); Rhubarb; Swiss chard. Spinach (including New Zealand and vine, Malabar spinach, Indian spinach).

Insects Controlled	Rate of Application	Method of Application		
Aphids Beet Armyworm Corn Earworm Cutworms European Corn Borer Fall Armyworm Green Cloverworm Leafminers Southern Armyworm Tobacco Budworm	4 to 8 ozs. (0.1 to 0.2 pound active) Per acre	Apply every 3 to 7 days by air or ground. Use sufficient water to obtain full coverage of foliage. Apply with ground equipment in a minimum of 10 gallons of finished spray per acre or in a minimum of 2 gallons per acre by aircraft. For spinach, the minimum spray interval is 3 days. For crops other than spinach, the minimum spray interval is 7 days.		
Alfalfa Looper	2 to 8 ozs.			
Cabbage Looper	(0.05 to 0.2 pound active)			
Leafhoppers	Per acre			
Celery: Do not apply m	Celery: Do not apply more than 1.0 pound active ingredient (40 oz product) per acre per season.			
In Hawaii, do not apply more than 1.2 pound active ingredient (48 oz product) per acre per season.				
Lettuce: Do not apply more than 0.8 pound active ingredient (32 oz product) per acre per season.				
In Hawaii, do not apply more than 1.2 pound active ingredient (48 oz product) per acre per season.				
Spinach: Do not apply more than 0.6 pound active ingredient (24 oz product) per acre per season.				
All other crops: Do not	apply more than 1.0 pound	active ingredient (40 oz product) per acre per season.		

Lettuce, Head: For general use directions refer to the Leafy Vegetable crop grouping.

Insects Controlled	Rate of Application	Method of Application
Mushroom Flies	Apply as a fogging or	Preparation of building prior to fogging: (1) Close all
(Sciarid and	aerosol treatment at the	doors, windows, and ventilators, (2) Lock or barricade

Mushrooms (Mushroom houses and adjacent premise areas) (3 day phi)

Phorid adults)	rate of 2.0 to 2.5 ozs	all entrances, turn off pilot lights, post warning signs,
	(0.05 to 0.0625 pound	and take precautions to prevent persons and animals
	active) per 30 ozs. Of	from entering the area.
	water or suitable	
	dilutent.	Use prior to filling the house, during cool-down,
		during spawning, up to pinning, and between breaks.
	Use 1 qt. of solution per standard double house	Do not use when mushrooms are present.
	(35,000 cu. ft.; 8,000 sq.	Treat once daily as needed when flies appear. Do not
	ft.)	make more than 20 applications prior to pinning of
	,	first break; apply no more than 2 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 prefilter approved for
		pesticides (MSHA/NIOSH approval number prefix TC-
		23C), or a canister approved for pesticides
		(MSHA/NIOSH approval number prefix TC-14G).
NOTE: USE OF HIGH	PRESSURE HAND WANDIS P	ROIDBITED IN MUSHROOM
HOUSES		

Garlic (1 day phi)

Garne (± day prii)		
Insects Controlled	Rate of Application	Method of Application
Armyworms	6 to 8 ozs.	Apply with ground equipment in a minimum of 20
Onion Thrips	(0.15 to 0.2 pound active)	gallons of finished spray per acre or in a minimum
	Per acre	of 5 gallons per acre by aircraft. Begin applications
Cutworms		when pests appear and repeat as necessary to
Leafminers	4 to 8 ozs.	maintain control. The minimum interval between
Onion Maggots	(0.1 to 0.2 pound active)	applications is 10 days. Use the higher label rates as
(Adults)	Per acre	Onion Thrips population increases and avoid rescue
Stink Bugs		situations.
Do not apply more than 0.8 pound active ingredient (32 oz product) per acre per season.		

Onions, Bulb (1 day phi)

Insects Controlled	Rate of Application	Method of Application
Armyworms	6 to 12 ozs.	Apply with ground equipment in a minimum of 20
Onion Thrips	(0.15 to 0.3 pound active)	gallons of finished spray per acre or in a minimum
	Per acre	of 5 gallons per acre by aircraft. Begin applications
Cutworms	4 to 12 ozs.	when pests appear and repeat as necessary to
Leafminers		maintain control. The minimum interval between
Onion Maggots	(0.1 to 0.3 pound active) Per acre	applications is 7 days. Use the higher label rates as
(Adults)	Peracre	Onion Thrips population increases and avoid rescue

Stink Bugs		situations.
Do not apply more that	Do not apply more than 1.0 pound active ingredient (40 oz product) per acre per season.	

Ornamental Nursery Stock (Field Grown)

Insects Controlled	Rate of Application	Method of Application
Bagworm		This product may be used to control specified pests on
Beet Armyworm		non-edible ornamentals and non-bearing plants of
Cabbage Looper		fruiting species.
Citrus Thrips	4 to 8 ozs.	
Heliothis spp.	(0.1 to 0.2 pound active)	Caution: Marginal leaf burn may occur on Salvia,
Lace Bug	Per 100 gallons of water	Dieffenbachia and Pteris Fern. Application to blooming
Leafhoppers		plants may cause browning of petals. Before treating
Leafminers		large numbers of plants of a particular variety, treat a
Whitflies		few plants and observe prior to full scale application.

Papaya (Florida Only)(7 day phi)

Insects Controlled	Rate of Application	Method of Application
Aphids		Apply with ground equipment in 25-400 gallons of
Brown Soft Scale		finished spray per acre. Apply when insects first appear
Mealybug	6 ozs.	and repeat applications at a minimum of 10 day intervals
Papaya Fuit Fly	(0.15 pound active)	as needed to provide control.
Papaya Webworm	Per acre	
Papaya Whitefly		
Scale Crawlers		
Do not apply more than 0.75 pound active ingredient (30 oz product) per acre per season.		
Do not graze livestock in treated areas.		
Do not feed cover crops from treated areas to livestock.		

Peaches, Nectarines (14 day phi)

Insects Controlled	Rate of	Method of Application
	Application	
Green Fruitworm Lesser Peach Tree Borer Oriental Fruit Moth Peach Twig Borer Plum Curculio Rose Chafer Tarnished Plant Bug	4 to 10 ozs. (0.1 to 0.25 pound active) Per acre	Apply with ground equipment using 25-400 gallons of spray per acre or a minimum of 10 gallons per acre by aircraft. Spray to wet all foliage. If additional applications are required for control, the minimum interval between applications is 10 days.
Do not apply more than 0.75 pound active ingredient (30 oz product) per acre per season.		
Do not graze livestock in treated areas.		
Do not feed cover crops from treated areas to livestock.		

Pears

Insects Controlled	Rate of Application	Method of Application	
Dormant through	8 to 10 ozs.	This product may be combined with 2 to 8 gallons	
Delayed Dormant	(0.2 to 0.25 pound active)	of spray oil per acre. Apply during the dormant	
Pear Psylla	Per acre	through delayed dormant growth periods only.	

		Apply in a minimum of 10 gallons of finished spray per acre by aircraft and 25-400 gallons per acre by ground equipment. The minimum interval between applications is 10 days.
Pre-Bloom Codling Moth Green Fruitworm Pear Psylla	8 to 10 ozs. (0.2 to 0.25 pound active) Per acre	Apply with ground equipment using 25-400 gallons of finished spray per acre or a minimum of 10 gallons per acre by aircraft. Pre-Bloom sprays can be applied from dormant through bud burst stages. The minimum interval between applications is 10 days.
Do not apply more than 0.65 pound active ingredient (26 oz product) per acre per season. Do not graze livestock in treated areas. Do not feed cover crops from treated areas to livestock.		

Peppers, Bell (3 day phi)

Insects Controlled	Rate of Application	Method of Application
Cabbage Looper Corn Earworm Cutworms Flea Beetle Pepper Weevil Vegetable Leafminer	4 to 8 ozs. (0.1 to 0.2 pound active) Per acre	Apply using sufficient water to obtain uniform coverage. Apply as needed, but no sooner than every 5 days. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.
European Corn Borer	8 ozs. (0.2 pound active) Per acre	

Pistachios (0 day phi)

Fistachios (o day pin)			
Insects Controlled	Rate of Application	Method of Application	
Leaffooted Bugs Naval Orangeworm Peach Twig Borer Plant Bugs Stink Bugs	8 to 12 ozs. (0.2 to 0.3 pound active) Per acre	Use sufficient water to obtain full coverage of foliage. Apply this product in a minimum of 10 gallons of finished spray per acre by aircraft or by ground equipment in 25-400 gallons of finished spray per acre. If additional applications are required for control, the minimum interval between applications is 10 days.	
Ants	12 ozs. (0.3 pound active) Per acre Application should follow mowing of weed grow to insure maximum coverage of the soil surface Overhead moisture following application will enhance activity. If additional applications are required for control the minimum interval betw applications is 10 days.		
Do not apply more than 0.9 pound active ingredient (36 oz product) per acre per crop season.			
Do not apply after 10% hull split.			
Do not graze livestock in treated areas.			
Do not feed cover crops from treated areas to livestock.			

Potatoes (14 day phi)

Insects Controlled	Rate of Application	Method of Application	
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 to 8 ozs. (0.1 to 0.2 pound active) Per acre	Apply with ground equipment in a minimum of 10 gallons of finished product per acre or in a minimum of 2 gallons per acre by aircraft. This product may also be applied using refined non-volatile vegetable oil for control of listed pests. This product 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. The minimum interval between applications is 10 days.	
Do not apply more than 0.8 pound active ingredient (32 oz product) per acre per season.			

Pumpkins: For general use directions refer to the **Cucurbit Vegetables** crop grouping.

Roses (Field Grown)

Insects Controlled	Rate of Application	Method of Application
Heliothis spp.	4 to 8 fluid ozs.	This product may be applied with ground equipment in
	(0.1 to 0.2 pound	a minimum of 10 gallons of finished spray per acre or in
	active)	a minimum of 2 gallons of finished spray per acre by
	Per acre	aircraft.

Roses (Greenhouse)

Insects Controlled	Rate of Application	Method of Application
Beet Armyworm		Caution: This product is not phytotoxic to the following
Cabbage Looper		varieties of greenhouse roses: Ballena, Bettina, Cara
Omnivorous Leafroller		Mia, Coquette, Excitement, Forever Yours, G. Wave,
	8 fluid ozs.	Jack Frost, Jr. Bridesmaid, Matador, Paul's Pink,
	(0.2 pound active)	Samantha, Seventeen, Sonia, Town Crier, Tropicana and
	Per acre	Visa. Other varieties may vary in their sensitivity to this
		product and a small number of plants should be treated
		under local conditions to determine plant safety prior
		to commercial use.

Soybeans (60 day phi)

Soybeans (oo aay pin)		
Insects Controlled	Rate of Application	Method of Application
Bean Leaf Beetle		Apply with ground equipment in a minimum of
Cabbage Looper		10 gallons of finished spray per acre or in a
Corn Rootworm Beetles	2 to 4 ozs.	minimum of 2 gallons per acre by aircraft. This
Cutworms	(0.05 to 0.1 pound active)	product may also be applied using refined non-
Flea Beetle	Per acre	volatile vegetable oil for control of listed pests.
Green Cloverworm		This product should be diluted with oil and
Japanese Beetle		applied in a minimum of 1 quart total volume

Mexican Bean Beetle Potato Leafhopper Saltmarsh Caterpillar (Woollybear Caterpillar) Thistle Caterpillar Velvetbean Caterpillar		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. The minimum interval between spray applications is 10 days.
Beet Armyworm Corn Earworm Soybean Looper Webworms	4 to 8 ozs. (0.1 to 0.2 pound active) Per acre	
Do not apply more than 0.4 pound active ingredient (16 oz product) per acre per season. Do not graze or feed soybean forage or hay.		

Spinach: Refer to Leafy Vegetable crop grouping for general use directions. Do not apply more than 0.6 pound active ingredient (24 oz product) per acre per season.

Insects Controlled	Rate of Application	Method of Application	
Beet Armyworm		Apply with ground equipment in a minimum of 10	
Cabbage Looper		gallons finished spray per acre or in a minimum of	
Colorado Potato Beetle		2 gallons per acre by aircraft. The minimum	
Granulate Cutworm	2 to 8 ozs.	interval between applications is 7 days.	
Hornworms	(0.05 to 0.2 pound active)		
Southern Armyworm	Per acre		
Tomato Fruitworm			
Tomato Pinworm			
Vegetable Leafminer			
In all states but Hawaii: do not apply more than 0.6 pound active ingredient (24 oz product) per acre per			

Tomatoes, Tomatillos (0 day phi)

In all states but Hawaii: do not apply more than 0.6 pound active ingredient (24 oz product) per acre per season. In Hawaii: do not apply more than 0.8 pound active-ingredient (32 oz product) per acre per season. Do not apply to cherry tomatoes or other varieties which produce fruit less than one inch in diameter.

Walnuts (1 day phi)

Insects Controlled	Rate of Application	Method of Application
Codling Moth Navel Orangeworm Walnut Husk Fly	8 to 10 ozs. (0.2 to 0.25 pound active) Per acre	For full coverage application apply 0.05 to 0.0625 pound active per 100 gallons (based on 400 gallons finished spray per acre), spray to run-off; OR, for low volume application apply 0.2 to 0.25 pound active per acre (25-200 gallons finished spray per acre). For aerial application apply 0.2 to 0.25 pound active in a minimum of 10 gallons of finished spray per acre. The minimum interval between applications is 10 days.
Do not apply more than 0.75 pounds active ingredient (30 oz product) per acre per season.		
Do not graze livestock in treated areas.		
Do not feed cover crops from treated areas to livestock.		

Premises Spray

For agricultural use only.

Spray directly to walls and ceiling as residual surface treatment only. Do not treat manure or litter. Avoid contamination of feed and water. Do not apply directly to livestock or poultry.

For Application In	Insects Controlled	Rate of Application	Method of Application
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	1 gallon per 750 square feet of surface	Dilute 4 ounces to 12.5 gallons of water. Apply with sprayer.

Re-treat as necessary, but not more often than once every 2 weeks.

The use of any residual fly spray should be supplemental with proper manure management and general sanitation to reduce or eliminate fly breeding site.

Treatment of Preconstruction Lumber and Logs General Information

This product should be diluted with water. To prepare the spray, dilute this product as shown in the following spray dilution chart:

Spray Dilution Chart			
Gallons of Spray	Gallons of this product to Use		
Mixture Desired	0.5% Solution	0.75% Solution	1.0% Solution
40	1/2	3⁄4	1
80	1	1 ½	2
200	2 1/2	3 ¾	5
400	5	7 ½	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 this product. 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 this product 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 this product 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, this product 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.

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	

STORAGE AND DISPOSAL

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

Pesticide Storage: Do not store below 10°F (-12°C). Do not use or store near heat, open flame or hot surfaces.

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 or fertilizers by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spill by: If liquid, dike surrounding area or absorb with sand, cat litter, and commercial clay or gel absorbents. 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:

Plastic Containers: For containers equal to or less than 5 Gallons: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into the application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container V4 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. Offer for recycling if available. CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

Conditions of Sale and Limitation of Warranty and Liability

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Repar Corporation or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Repar Corporation and Seller harmless for any claims relating to such factors.

Repar Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Repar Corporation and Buyer and User assume the risk of any such use. To the extent permitted by law, Repar Corporation MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the fullest extent permitted by law Repar Corporation or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF REPAR CORPORATION AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF REPAR CORPORATION OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Repar Corporation and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty of liability, which may not be modified except by written agreement signed by a duly authorized representative of Repar Corporation.