

Mr. Bill Washburn  
Micro Flo Company  
P.O. Box 772099  
Memphis, TN 38117

JAN 31 2006

Dear Mr. Washburn:

Subject: Label Amendment- revision of advisory statements  
Micro Flo Permethrin 3.2 AG  
EPA Registration Number 51036-434  
Your submission dated September 14, 2005

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following comments:

1. On page 5, Index to uses add "Lawn and Ornamental Uses" and "Other Uses".
2. Under Collards and Turnips change "Application should be made" to "Apply in a minimum of 10 gallons xxx etc."
3. Under Apples change the first bullet to read "Apply by ground equipment only. Do not apply after pedal fall.". Make the same changes under Cherries and Papaya.
4. Under Cherries revise comments to read:  
"Make application upon first insect appearance."  
"Per season make no more than 6 application in total and no more than 4 applications after petal fall ... etc."  
"Per season make no more than 4 applications in total and no more than 3 applications after petal fall ... etc".
5. Under Filberts revise the comments to read "Make application upon first insect appearance.". Make this same change under Papaya and other crops listed as appropriate.
6. Under Pears revise the comment to read "Make applications only from the dormant growth period to the delayed dormant growth period."
7. Under Asparagus revise the comments to read "Make application only after harvest. After spear harvest apply to the fern stage ... etc."
8. Under Avocado revise the first bullet to read "Use ground equipment only to apply the product in 25- 400 gallons ... etc."

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9. Under Almonds revise the comment for ants to read "Use only ground equipment."

10. Under corn, field revise the comment to read " Do not make treatments less than 6 days apart."

11. Under Mushrooms revise certain comments to read:  
"When flies are present make application once per day as necessary."

"After exposure ventilate the house using fans ... etc."

"Wear a respirator equipped with either ... etc."

"Make applications in 30 ounces ... etc."

"Make applications as a fogging or aerosol treatment."

12. Under Pine See Orchards revise certain comments and bullets to read:

"Use no less than 10 gallons of water for aerial application."

"Make the first application to webbing coneworms ... etc."

"Make the first application to other coneworms... etc."

13. Under Lawn and Ornamental revise certain comments to read:

"Make first application at first emergence ... etc."

"Make the first application to webbing coneworms slightly ... etc."

"Make the first application to other coneworms... etc."

14. Revise the following statements under Storage and Disposal:

"Store this product at temperatures above ... etc."

"For safety and prevention of unauthorized use store all pesticides in locked facilities."

"To prevent accidental misuse store different pesticides in separate areas ... etc."

A copy of a stamped label is enclosed for your records.

Sincerely yours,

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

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

**MICRO FLO PERMETHRIN 3.2 AG**

Active Ingredient	
Permethrin*	36.8%
Other Ingredients**	63.2%
<b>TOTAL</b>	<b>100.0%</b>

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

Contains 3.2 pounds permethrin per gallon as an emulsifiable concentrate.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JAN 31 2008

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
**51036-434**

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF IN EYES	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN:</b> Contains petroleum distillates – vomiting may cause aspiration pneumonia	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>EMERGENCY TELEPHONE NUMBERS:</b>	
(800) 424-9300	CHEMTREC (transportation and spills)
(800) 832-HELP (4357)	Human Health
(800) 345-4735	ASPCA (animal health)

EPA Reg. No. 51036-434  
EPA Est. No. 51036-GA-001

Net Contents: 1 gallon, 30 gallons, 55 gallons  
ADxxxxxx

Manufactured By:  
Micro Flo Company LLC  
PO Box 772099  
Memphis, TN 38117

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## 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.

### Environmental Hazards

This product is highly toxic to bees exposed to treatment and for 3 days following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. The 3 day limitation does not apply if the applicator operates in a state with a formal, state-approved bee protection program, and the applicator follows all applicable requirements of the state-approved program designed to ensure that managed bees are not present in the treatment area during this time period.

This product is extremely toxic to fish and aquatic 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 contaminate water by cleaning of equipment or disposal of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in nearby areas.

### Physical/Chemical Hazards

Do not use or store near heat or open flame.

### Personal Protection Equipment (PPE)

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system such as U-Turn, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient.

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

#### User Safety Recommendations:

Users should:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

## DIRECTIONS FOR USE

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

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

**Resistance:** Repeated use of certain insecticides may create resistance in some target pests, resulting in a decrease of control. PERMETHRIN 3.2 AG should be used in accordance with treatment area-appropriate strategies for resistance management. For further information regarding resistance management strategies for your treatment area, consult local or state pest management authorities.

If you are unable to attain adequate control of a target pest and this loss of control cannot be explained by misapplication or weather extremes, it is possible that resistance has developed within the target population. If this appears to have occurred, promptly seek advice from your pest management advisor or company representation regarding alternative control techniques.

### 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.

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 over long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- Shoes plus socks.

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## 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.

MICRO FLO PERMETHRIN 3.2 AG should be applied continuously for the duration of the water application. Precise application to the area to be treated can be achieved by diluting MICRO FLO PERMETHRIN 3.2 AG with adequate water volume. At least 0.1 inch per acre of irrigation water should be used for chemigation. If an appropriate diluent is used, the mixture does not need to be agitated. However, it is possible that phase separation may occur. Be sure to conduct a diluent test to prevent phase separation during dilution and application. A uniform dilution should be used throughout the time of application to avoid unwanted residues or sub-maximum control.

## Commercial Impregnation and Application on Dry Bulk Fertilizers

PERMETHRIN 3.2 EC AG may be impregnated on dry bulk fertilizers as directed. This method will achieve the same insect control to that provided by applying equal rates of MICRO FLO PERMETHRIN 3.2 AG in water.

The mixtures may be used in either a surface application or a shallow incorporation. If incorporation is the preferred method, use the higher application rate for best results.

Impregnation: A minimum of 200 pounds of dry bulk fertilizer per acre and a maximum of 450 pounds per acre should be used with the recommended amount of MICRO FLO PERMETHRIN 3.2 AG. Appropriate equipment must be utilized to prepare and apply the mixture. A closed rotary-drum mixer or a similar closed blender with suitable spray equipment should be used. For comprehensive coverage, position the spray nozzle(s) so that a uniform, fine spray pattern will fall over the tumbling fertilizer. When the liquid is sufficiently absorbed, simple spray impregnation of the fertilizer with MICRO FLO PERMETHRIN 3.2 AG will result in an acceptable, dry mixture. If the fertilizer is not fully absorbing the liquid, use a highly absorptive powder, such as Microcel E (Johnson Manville Product Corporation), to create a dry, flowable mixture. If Microcel E is used, generally less than 2% by weight is required. Straight coated ammonium nitrate or straight limestone will not absorb the insecticide. As such, DO NOT impregnate MICRO FLO PERMETHRIN 3.2 AG onto these materials. Mixtures of ammonium nitrate or limestone in dry fertilizer blends may be impregnated with MICRO FLO PERMETHRIN 3.2 AG.

For each production operation, carefully determine how much MICRO FLO PERMETHRIN 3.2 AG is required to prepare the individual fertilizer mixtures. This way the correct usage rate will be applied to the soil. Do not store bulk fertilizer impregnated with MICRO FLO PERMETHRIN 3.2 AG. Apply immediately.

The individual and/or fertilizer and MICRO FLO PERMETHRIN 3.2 AG mixture retailer are responsible for following all individual state regulations relating to bulk dry fertilizer blending, registration, labeling and application of the mixtures.

## GENERAL USE INFORMATION

### Important:

MICRO FLO PERMETHRIN 3.2 AG 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.

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MICRO FLO PERMETHRIN 3.2 AG is formulated as an emulsifiable concentrate (EC) formulation and is to be diluted 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.

MICRO FLO PERMETHRIN 3.2 AG 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.

MICRO FLO PERMETHRIN 3.2 AG is a 3.2 pounds per gallon formulation of the insecticide permethrin. This product should be used upon the appearance of insects or feeding. As the insect presence increase, the higher product application rates should be utilized. And apply again as required. Complete coverage of the treated area can be achieved through the use of an adequate amount of water. Do not plant rotational crops within 60 days of last product application, unless the crop falls into one of the following exceptions.

This label must be in 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

- Chrysanthemum
- Conifers (Container and Field Grown)
- Ornamental Nursery Stock (Field Grown)
- Pine Seed Orchards
- Roses (Field Grown)
- Roses (Greenhouse)

### Ornamental Uses

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## VEGETABLE CROPS

ARTICHOKE			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Artichoke	Artichoke plume moth Leafminers	4 – 12 (0.1 – 0.3)	Per season, apply no more than 5 times or 1.5 pounds of active ingredient per acre.
<ul style="list-style-type: none"> <li>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.</li> <li>Applications may be made up to harvest.</li> </ul>			

ASPARAGUS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Asparagus	Asparagus beetle Cutworms	2 – 4 (0.05 – 0.1)	Per season, apply no more than 0.4 pound of active ingredient per acre.
	Asparagus beetle Japanese beetle (Adult stage)* Lygus bugs Tarnished plant bug	4 (0.1)	Application should be made only after harvest. After spear harvest, the product should be applied at the fern stage during both the larval and adult stages of the insect. *These instructions do not apply in California for this insect.
<ul style="list-style-type: none"> <li>Apply by ground at least 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage.</li> <li>Do not apply within 1 day of harvest.</li> </ul>			

AVOCADO			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
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)	Per season, apply no more than 1.2 pounds of active ingredient per acre. Application should be made upon the first insect appearance. Apply again at 7 to 10 day intervals as required for control.
<ul style="list-style-type: none"> <li>Ground equipment should be used to apply the product in 25-400 gallons of finished spray per acre.</li> <li>Do not graze livestock in treated areas.</li> <li>Do not feed cover crops from treated areas to livestock.</li> <li>Do not apply within 7 days of harvest.</li> </ul>			



COLE CROPS – Brassica Leafy Vegetables			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Broccoli, Chinese Broccoli (gai lan, white flowering broccoli), Brussels Sprouts; Cauliflower; Cavalo broccolo, Kohlrabi	Amyworm spp. Cabbage aphid* Cabbage looper Diamondback moth Imported cabbageworm Plant bugs Thrips	2 – 4 (0.05 – 0.1)	Apply every 5 days as needed. Per season, apply no more than 0.8 pound of active ingredient per acre.
Cabbage, Chinese Cabbage (napa, tight-headed varieties only)	Cabbage aphid* Cabbage looper Diamondback moth Imported cabbageworm Southern white butterfly	2 – 8 (0.05 – 0.2)	Apply every 5 – 10 days or as needed. Per season, apply no more than 1.0 pound of active ingredient per acre.
	Amyworm spp. Cutworms Flea beetles	4 – 8 (0.1 – 0.2)	
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not apply within 1 day of harvest.</li> </ul> <p>* Aids in the suppression only</p>			

COLLARDS and TURNIPS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
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 - 4 (0.05 - 0.1)	Only ground equipment should be used for application on an as needed basis. Do not exceed 8 applications. AR, TX: Per season, apply no more than 0.8 pound of active ingredient per acre.
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 - 4 (0.05 - 0.1)	Only ground equipment should be used for application on an as needed basis. Do not exceed 8 applications. Do not graze treated areas or feed crop refuse to livestock. TX, IN: Per season, apply no more than 0.8 pound of active ingredient per acre. SC, GA, FL, WA: Per season, apply no more than 0.4 pound of active ingredient per acre.
<ul style="list-style-type: none"> <li>• Application should be made in a minimum of 10 gallons of water per acre. Use sufficient water to obtain full coverage of foliage.</li> <li>• Do not apply within 1 day of harvest.</li> <li>• Aids in the suppression only</li> </ul>			

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CORN, SWEET			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
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)	Per season, apply no more than 1.2 pounds of active ingredient per acre. Application should be made on an as needed basis or every 3 to 5 days. *This insect does not appear on this crop in California
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not apply within 1 day of harvest.</li> </ul>			

CORN, SWEET (FLORIDA ONLY)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Corn, Sweet	Aster leafhopper Corn earworm Cutworm European corn borer Fall armyworm Southern armyworm	4 – 10 (0.1 – 0.25)	Per season, apply no more than 2.0 pounds of active ingredient per acre. Application should be made on an as needed basis or every 3 to 5 days.
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not apply within 1 day of harvest.</li> </ul>			

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CUCURBIT VEGETABLES			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Cucurbit vegetables*	Aphids Leafminers Squash bugs	8 (0.2)	Per season, apply no more than 1.6 pounds of active ingredient per acre.
	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"> <li>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.</li> <li>Apply until harvest time.</li> </ul>			
<p>* Cucurbit vegetables include: <b>Chayote</b> (fruit), <b>Chinese waxgourd</b> (Chinese preserving melon), <b>Citron melon</b>, <b>Cucumber</b>, <b>Gherkin</b>, <b>Gourd (edible)</b> (includes cucuzza, hyotan), <b>Luffa spp.</b> (includes Chinese okra, hechima), <b>Momordica spp.</b> (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), <b>Muskmelon</b> (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), <b>Pumpkin</b>; <b>Summer Squash</b> (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), <b>Winter Squash</b> (includes acorn squash, butternut squash, calabaza, hubbard squash, C. mixta, C. pepo, spaghetti squash), <b>Watermelon</b> (includes hybrids and/or varieties of Citrullus spp.)</p>			

EGGPLANT			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Eggplant	Colorado potato beetle	8 (0.2)	Per season, apply no more than 2.0 pounds of active ingredient per acre.
	Cabbage looper Flea beetles Vegetable leafminer	4 – 8 (0.1 – 0.2)	Application should be made on an as needed basis.
<ul style="list-style-type: none"> <li>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.</li> <li>Do not apply within 3 days of harvest.</li> </ul>			

HORSERADISH			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Horseradish	Imported crucifer weevil (Baris lepidii)	0.1% active solution (2 pt. 1 oz per 100 gallons)	Allow 30 minutes for soaking and air-drying when applying before spring planting as a dip.
		8 (0.2)	Use at least 20 gallons finished spray per acre when making a foliar application. Apply with ground equipment. During oviposition, foliar application may be made up to 3 times as needed to control weevil adults.
<ul style="list-style-type: none"> <li>Do not apply within 30 days of harvest.</li> </ul>			

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LEAFY VEGETABLES (except Brassica)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
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)	Application should be made on an as needed basis or every 3-5 days. Per season, apply no more than 2.0 pounds of active ingredient per acre.  Spinach: Per season, apply no more than 1.0 pounds of active ingredient per acre.
	Alfalfa looper Cabbage looper Leafhoppers	2 – 8 (0.05 – 0.2)	
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not apply within 1 day of harvest.</li> </ul>			
<p>* Leafy vegetables include: <b>Amaranth</b> (Chinese spinach, leafy amaranth, tampala), <b>Arugula</b> (Roquette), <b>Cardoon</b>, <b>Celery</b>, <b>Chinese celery</b>, <b>Celtuce</b>, <b>Chervil</b>, <b>Chrysanthemum</b> (edible-leaved and garland), <b>Corn salad</b>, <b>Garden Cress</b>, <b>Upland Cress</b> (winter cress, yellow rocket), <b>Dandelion</b>, <b>Dock</b> (sorrel), <b>Endive</b> (escarole), <b>Florence fennel</b> (finocchio), <b>Head and Leaf Lettuce</b>, <b>Orach</b>, <b>Parsley</b>, <b>Garden Purslane</b>, <b>Winter Purslane</b>, <b>Radicchio</b> (red chicory), <b>Rhubarb</b>, <b>Spinach</b>, <b>Swiss chard</b> (including Indian spinach, Malabar spinach, New Zealand and vine).</p>			

ONIONS, BULB and GARLIC			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Onion, bulb Garlic	Amyworms Onion thrips	6 – 12 (0.15 – 0.3)	Applications should be made upon first pest appearance. Apply again thereafter as required for pest control. As onion thrips pest pressure increases, the higher label rates should be used. Rescue situations should be avoided.  Per season, apply no more than 2.0 pounds active ingredient per acre.
	Cutworms Leafminers Onion maggots (adults) Stink bugs	4 – 12 (0.1 – 0.3)	
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not apply within 1 day of harvest.</li> </ul>			

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PEPPERS, BELL			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Peppers, bell	Cabbage looper Corn earworm Cutworms Flea beetle Pepper weevil Vegetable leafminer	4 – 8 (0.1 – 0.2)	Per season, apply no more than 1.6 pounds of active ingredient per acre.
	European corn borer	8 (0.2)	
<ul style="list-style-type: none"> <li>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.</li> <li>Do not apply within 3 days of harvest.</li> </ul>			

POTATOES			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
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)	Per season, apply no more than 1.6 pounds of active ingredient per acre.
<ul style="list-style-type: none"> <li>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.</li> <li>Refined non-volatile vegetable oil may be used to apply MICRO FLO PERMETHRIN 3.2 AG to establish pest control. To use this method, dilute MICRO FLO PERMETHRIN 3.2 AG with oil. Using equipment calibrated to for thorough coverage, apply the diluted mixture in a minimum of one quart total volume per acre.</li> <li>Do not apply within 14 days of harvest.</li> </ul>			

TOMATOES, TOMATILLOS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
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)	Per season, apply no more than 1.2 pounds of active ingredient per acre.  Do not apply to cherry tomatoes or other varieties producing fruit smaller than one inch in diameter.
<ul style="list-style-type: none"> <li>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.</li> <li>May be applied up until harvest.</li> </ul>			

**TREE FRUIT AND NUTS**

ALMONDS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Almonds	Navel orangeworm Peach twig borer	8 – 16 (0.2 – 0.4)	Application should be made upon first insect appearance. To establish pest control, apply again as necessary. Apply by air or ground equipment. By air, apply in a minimum of 15 gallons of water per acre. By ground, apply in 25-400 gallons of finished spray per acre.
	Ants	16 (0.4)	Only ground equipment should be used for applications. Per acre, apply product in a minimum of 15 gallons of water. To obtain the greatest soil surface coverage, apply after mowing weed growth. After application, pesticide activity can be improved through the use of overhead moisture.
<ul style="list-style-type: none"> <li>• During hull split, apply at most 0.8 lb. a.i./A.</li> <li>• Per season, apply no more than 2.0 lb. a.i./A.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> <li>• Do not apply within 7 days of harvest.</li> </ul>			

APPLES			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Apples	Green fruitworm Oblique banded leafroller Plum curculio Redbanded leafroller Rosy apple aphid Spotted tentiform leafminer Tarnished plant bug White apple leafhopper	4 – 16 (0.1 – 0.4)	Per season, apply no more than 0.6 pound of active ingredient per acre. Application should be made upon first insect appearance. To establish pest control, apply again as necessary.
<ul style="list-style-type: none"> <li>• Only ground equipment should be used for application. Per acre, use 25-400 gallons of finished spray.</li> <li>• Do not apply after petal fall.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> </ul>			

16/28

CHERRIES			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Cherries (including Sweet Cherries and Tart Cherries)	Green fruitworm Lesser peach tree borer Plum curculio Redbanded leafroller Rose chafer Tarnished plant bug	4 – 8 (0.1 – 0.2)	Application should be made upon first insect appearance. Per season, no more than 6 applications should be made in total and no more than 4 applications should be made after petal fall in areas east of the Rocky Mountains. Per season, no more than 4 applications should be made in total and no more than 3 applications should be made after petal fall in areas west of the Rocky Mountains.
<ul style="list-style-type: none"> <li>• Only ground equipment should be used for application. Per acre, use 25-400 gallons of finished spray.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> <li>• Do no apply within 7 days of harvest.</li> </ul>			

FILBERTS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Filberts	Filbertworm Oblique banded leafroller	8 – 16 (0.2 – 0.4)	Per season, apply no more than 1.6 pounds of active ingredient per acre. Application should be made upon first insect appearance.
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> <li>• Do no apply within 14 days of harvest.</li> </ul>			

PAPAYA (Florida Only)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Papaya	Aphids Brown soft scale Mealybug Papaya fruit fly Papaya webworm Papaya whitefly Scale crawlers	8 (0.2)	Per season, apply no more than 1.2 pounds of active ingredient per acre. Spray to wet all foliage. Application should be made upon first insect appearance. To establish pest control, apply again as necessary at 7-10 day intervals.
<ul style="list-style-type: none"> <li>• Only ground equipment should be used for application. Per acre, use 25-400 gallons of finished spray.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> <li>• Do no apply within 7 days of harvest.</li> </ul>			



17/208

PEACHES and NECTARINES			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Peaches Nectarines	Green fruitworm Lesser peach tree borer Oriental fruit moth Peach twig borer Plum curculio Rose chafer Tarnished plant bug	4 – 12 (0.1 – 0.3)	Per season, apply no more than 1.5 pounds of active ingredient per acre. Use appropriate spray equipment to wet all foliage.
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> <li>• Do not apply within 14 days of harvest.</li> </ul>			

PEARS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Pears (Dormant through Delayed Dormant)	Pear psylla	8 – 16 (0.2 – 0.4)	Per season, apply no more than 0.8 pound of active ingredient per acre. Between 2 and 8 gallons of spray oil per acre can also be used with the product. Applications should be made only from the dormant growth period to the delayed dormant growth period.
Pears (Pre-Bloom)	Codling moth Green fruitworm Pear psylla	8 – 16 (0.2 – 0.4)	Per season, apply no more than 0.8 pound of active ingredient per acre. From the dormant stage through bud burst stage, make pre-bloom spray applications.
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> </ul>			

PISTACHIOS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Pistachios	Leaffooted bugs Naval orangeworm Peach twig borer Plant bugs Stink bugs	8 – 16 (0.2 – 0.4)	To achieve comprehensive foliage coverage, an adequate amount of water should be used.
	Ants	16 (0.4)	To obtain the greatest soil surface coverage, apply after mowing weed growth. After application, pesticide activity can be improved through the use of overhead moisture.
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not apply after 10% hull split.</li> <li>• Per season, apply no more than 1.6 pounds of active ingredient per acre.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> <li>• May be applied up until harvest.</li> </ul>			

18/28

WALNUTS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Walnuts	Codling moth Navel orangeworm Walnut husk fly	8 – 16 (0.2 – 0.4)	Per season, apply no apply more than 1.6 pounds of active ingredient per acre. Application should be made upon first insect appearance.
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not graze livestock in treated areas.</li> <li>• Do not feed cover crops from treated areas to livestock.</li> <li>• Do not apply within 1 day of harvest.</li> </ul>			

**OTHER CROPS**

ALFALFA			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
Alfalfa Alfalfa grown for seed (Includes birdsfoot trefoil, esparcet, holy clover, lucerne, sainfoin and varieties and/or hybrids of these)	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)	Per cutting, apply no more than 0.2 pound of active ingredient. If pest population mounts or when greater residual pest control is desired, the higher recommended dosage should be used. 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"> <li>• 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.</li> <li>• May be applied up until harvest when rates of 0.1 pound per active per acre or less are used. Do not apply within 14 days of harvest if a rate higher than 0.1 pound active ingredient per acre is used.</li> <li>• Apply only to fields planted to pure stands of alfalfa.</li> </ul>			

19/08

CORN (FIELD), FIELD CORN GROWN FOR SEED, POPCORN			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Field Corn, Field corn grown for seed, Popcorn (Pre-emergent Use)	Amyworm Cutworm Stalk borers	For broadcast spray: 4 – 8 (0.1 – 0.2)  OR  For 1000 linear feet rows (based on a 4" band and 40" row spacing): 0.3 – 0.6	The following are permissible applications: preplant incorporated, pre-emergence, or at planting time. Apply in the time period from 5 days prior to planting up to emergence of the crop. Application can be made by ground or air using a broadcast spray or 4-15 inch band with adequate spray volume to ensure comprehensive coverage.  Calculate linear rows in proportion to the standard Band Width/Row Width formula. This will allow rate adjustments to be made for different bandwidths or row spacings. When incorporating into the soil, higher rates should be used. However, the recommended dosage should not be exceeded.  Abide by all restrictions and precautions on product labels when using tank mixes. To keep the phase separation, constantly agitate the solution during mixing and application.
Field Corn, Field Corn Grown for Seed, Popcorn (Foliar Use)	Amyworm (including Fall Amyworm) Corn borer European, Southwestern Corn earworm Corn rootworm beetles Cutworm Flea beetle Hop vine borer Stalk borers Webworms	4 – 8 (0.1 – 0.2)	Per season, apply no more than 0.6 pound of active ingredient per acre. Applications should be made no less than 6 days apart.  For control of stalk borers: Treat when, or shortly before, the stalk borer larvae are moving into the corn from surrounding weeds and grasses. Movement can be instigated by mowing or burndown herbicide.  For control of corn earworm: Treat immediately prior to silking. Repeat as required to establish control.
	Western bean cutworm	2 – 4 (0.05 – 0.1)	
<ul style="list-style-type: none"> <li>• 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.</li> <li>• Do not apply within 30 days of harvest of grain or fodder (stover).</li> <li>• On the day of application, forage harvesting is permitted.</li> </ul>			

CORN (FIELD), FIELD CORN GROWN FOR SEED, POPCORN			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Field Corn, Field corn grown for seed, Popcorn (At Plant Use)	Amyworm Cutworm Seed corn maggot* Wireworm*	For 1000 linear feet of rows: * 0.3	The following are permissible applications: In furrow, band or T-band treatment using a minimum 4" band.  MICRO FLO PERMETHRIN 3.2 AG requirements per acre can be established using the following table.  * This product may not be used in California for these pests.
Row Spacings (inches)		MICRO FLO PERMETHRIN 3.2 AG (ounces per acre)	MICRO FLO PERMETHRIN 3.2 AG (pounds ai per acre)
40		4.0	0.10
30		6.0	0.15
20		8.0	0.20

20/28

MUSHROOMS (Mushroom Houses and Adjacent Premise Areas)			
CROP	TARGET PESTS	RATE OZ (LBS AI)	COMMENTS
Mushrooms (including mushroom houses and adjacent premise areas)	Mushroom flies (Sciarid and Phorid adults)	2 – 2.5 (0.05 – 0.0625)	Before fogging, prepare the building as follows: (1) Shut all doors, windows, and ventilators, (2) Lock or barricade all entrances, (3) extinguish all pilot lights, (4) put up warning signs, and (5) take appropriate measures to prevent persons and animals from entering the area. Treat during the following periods: prior to filling the house, during cool-down, during spawning, up to pinning, and between breaks. Do not apply when mushrooms are present. When flies are present, applications should be made once per day as necessary. Prior to pinning of first break, make no more than 20 applications. Between each break make no more than two applications. No more than 30 applications total per crop of 5 breaks should be applied. Limit exposure time to 1 hour. After exposure, the house should be ventilated using fans to in houses without forced air circulation. A respirator should be worn. The respirator should be equipped with either an organic vapor-removing cartridge and 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)
<ul style="list-style-type: none"> <li>• Application should be made in 30 ounces of water or appropriate diluent in a ratio of 1 quart of solution per standard double house (35,000 cu. ft.: 8000 sq. ft.).</li> <li>• Application should be made as a fogging or aerosol treatment.</li> <li>• Do not apply within 3 days of harvest.</li> </ul>			

RANGE GRASS (New Mexico Only)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Range Grass (New Mexico only)	Range caterpillar	0.4 (0.1)	Apply as needed. Do not apply more than once per year. The presence of cattle is permitted during application.
<ul style="list-style-type: none"> <li>• 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. For even coverage, adequate volume should be used.</li> <li>• Do not harvest or feed hay to livestock.</li> </ul>			

2/28

SOYBEANS			
CROP	TARGET PESTS	RATE FL OZ/A (LBS A/A)	COMMENTS
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 – 0.1)	Per season, apply no more than 0.4 pound of active ingredient per acre. Do not graze treated areas. Do not graze 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"> <li>• 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.</li> <li>• Refined non-volatile vegetable oil may be used to apply MICRO FLO PERMETHRIN 3.2 AG to establish pest control. To use this method, dilute MICRO FLO PERMETHRIN 3.2 AG with oil. Using equipment calibrated to for thorough coverage, apply the diluted mixture in a minimum of one quart total volume per acre. One quart of oil may be substituted for 1 quart of water per gallon of finished spray for aerial application in water.</li> <li>• Do not apply within 60 days of harvest.</li> </ul>			

## ORNAMENTALS

CHRYSANTHEMUMS			
CROP	TARGET PESTS	RATE OZ (LBS AI)	COMMENTS
Chrysanthemums	Liriomyza leafminer flies	Per 100 gallons of water: 20 (0.5)	Avoid spraying blooms. Applications can be made every 7 days.
<ul style="list-style-type: none"> <li>• Caution: MICRO FLO PERMETHRIN 3.2 AG has an excellent plant safety profile; but not all cultivars have been tested with this product. Therefore, before treating large numbers of plants of a particular cultivar, a small number of plants should be tested. Await results before applying to the remaining plants.</li> </ul>			

22/28

CONIFERS (Container and Field Grown)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Conifers (container and field grown)	Nantucket pine tip moth	4 – 8 (0.1 – 0.2)	Applications should be made upon first pest appearance. Apply again as required during the season or at 5 to 7 day intervals.
<ul style="list-style-type: none"> <li>MICRO FLO PERMETHRIN 3.2 AG may be applied in a non-volatile vegetable oil or water. To use this method, dilute MICRO FLO PERMETHRIN 3.2 AG in a minimum of 1 gallon of finished spray per acre. Apply with equipment calibrated to provide sufficient coverage.</li> </ul>			

ORNAMENTAL NURSERY STOCK (Field Grown)			
CROP	TARGET PESTS	RATE OZ (LBS AI)	COMMENTS
Ornamental nursery stock (field grown)	Bagworm Beet armyworm Cabbage looper Citrus thrips Lace bug Leafhoppers Leafminers Whiteflies	Per 100 gallons of water: 4 – 8 (0.1 – 0.2)	For pest control on non-edible ornamentals and non-bearing plants of fruiting species MICRO FLO PERMETHRIN 3.2 AG may be applied as directed.
<ul style="list-style-type: none"> <li>Caution: Salvia, Dieffenbachia and Pteris Fern may experience a minimal amount of leaf burn. Additionally, petal browning may occur upon blooming plants application.</li> <li>Caution: MICRO FLO PERMETHRIN 3.2 AG has an excellent plant safety profile; but not all cultivars have been tested with this product. Therefore, before treating large numbers of plants of a particular cultivar, a small number of plants should be tested. Await results before applying to the remaining plants.</li> </ul>			

PINE SEED ORCHARDS			
CROP	TARGET PESTS	RATE OZ	COMMENTS
Pine seed orchards	Coneworms Seed bugs	8 in 100 gallons of water (0.025% dilution by weight)	Per tree, use 5 to 10 gallons of finished spray for high volume sprayers.
		42 in 100 gallons of water (0.125% dilution by weight)	Per tree, use 100 gallons for low volume sprayers.
		30 per acre	At least 10 gallons of water should be used for aerial application.
<p>–The first application to webbing coneworms should be made within seven days of female flower closure or peak pollen flight.          – The first application to other coneworms and seed bugs should be made within 30 days after female flower closure.          Apply again at 4 week intervals. No more than 6 applications should be made.</p> <ul style="list-style-type: none"> <li>Do not graze livestock in treated areas.</li> <li>Do not feed cover crops from treated areas to livestock.</li> <li>Avoid pesticide contact with open water.</li> </ul>			

23/28

ROSES (Field Grown)			
CROP	TARGET PESTS	RATE FL OZ/A (LBS AI/A)	COMMENTS
Roses (field grown)	Heliothis spp.	4 – 8 (0.1 – 0.2)	
<ul style="list-style-type: none"> <li>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.</li> </ul>			

ROSES (Greenhouse)			
CROP	TARGET PESTS	RATE OZ (LBS AI)	COMMENTS
Roses (greenhouse)	Beet armyworm Cabbage looper Omnivorous leafroller	Per 100 gallons of water: 8 (0.2)	
<ul style="list-style-type: none"> <li>Several greenhouse rose varieties are not subject to harm from MICRO FLO PERMETHRIN 3.2 AG. These varieties include: 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. For additional varieties test MICRO FLO PERMETHRIN 3.2 AG on a few under local conditions. Await results to ensure plant safety before commercial use.</li> </ul>			

24/28

## LAWN and ORNAMENTAL USES -- Greenhouses, Interiorscapes, Lawns, Field and Container Grown Nursery Stock, Plantscapes, Shrubs, and Trees

For control of insects on ornamentals, lawns and perimeters around buildings (commercial, industrial, institutional, public and residential), parks and recreational areas, including athletic fields.

PLANT	TARGET PESTS	APP. RATE (FL. OZ.)	COMMENTS
<b>Ornamental Plants, including:</b> Evergreens; Flowering plants; Foliage; Greenhouses; Non-bearing plants of fruiting species in landscaped areas around buildings; Non-crop areas; Nurseries; Plants intended for aesthetic purposes in interior gardens and plantscapes; Woody and herbaceous non-edible ornamentals	Ants Aphids Bagworm Beet Armyworm Birch Leafminer Cabbage Looper Cankerworms Citrus Thrips Coneworms* Fungus Gnat Gypsy Moth Caterpillars Heliopsis spp Japanese Beetles Lace Bug Leaf Feeding Caterpillars Leafhoppers Leafminers Leaf rollers Lygus Bugs Mealybugs Nantucket Pine Tip Moth* Pine Sawflies Plant Bugs Root Weevils (Adult) Seed bugs* Tent Caterpillars Webworms Whiteflies Zimmerman Pine Moth	4-8 / 100 gallons  - or -  4-8 / acre as a broadcast	For even coverage, adequate volume should be used.  As the insect presence becomes moderate to high, the higher product application rates should be utilized.  Caution: Salvia, Dieffenbachia and Pteris Fern may experience a minimal amount of leaf burn. Additionally, petal browning may occur upon blooming plants application.  Coneworms, Nantucket pine tip moth and seed bugs in evergreens: First applications may be made at first emergence of adult pests and repeated as necessary every 5 to 7 days. The first application to webbing coneworms should be made slightly before peak pollen flight. The first application to other coneworms and seed bugs should be made within 30 days after female flower closure. Per-tree applications of 5-10 gallons should be made at a rate of 8 fl. oz. in 100 gallons of water.
<b>Ornamental Trees</b>	Clearwing moth borers: Ash borer, Banded Ash Clearwing, Dogwood borer, Lesser peachtree borer, Lilac borer, Oak borer, Peachtree borer, Rhododendron borer	1-2 / 100 gallons	Prior to appearance of adult pests, apply to the trunk and lower branches of target trees. Do not apply this product to the point of run-off.  Geography, environmental conditions and the conditions of the host tree will affect emergence.  Optimum control is achieved by careful and complete spray coverage of the bark from the base of the trunk to the scaffold limbs.
<b>Ornamental Trees</b>	Bark Beetles: Dendroctonus spp., Ips spp., Elm bark beetles, Mountain pine beetle, Pine engravers, Turpentine beetles, Western pine beetle  Coleopteran borers: Bronze birch borer, Flatheaded appletree borer	2-5 / 100 gallons	Prior to appearance of adult pests, apply to the trunk and lower branches of target trees. Do not apply this product to the point of run-off.  Geography, environmental conditions and the conditions of the host tree will affect emergence.  Optimum control is achieved by careful and complete spray coverage of the bark from the base of the trunk to the scaffold limbs.



25/28

PLANT	TARGET PESTS	APP. RATE (FL. OZ.)	COMMENTS
<b>Lawns:</b> Around buildings (commercial, industrial, institutional, public and residential), grass nurseries, parks and recreational areas, including athletic fields	Ants Ant Mounds Armyworm Centipedes Chinchbugs Crickets Earwigs Fire Ants Firebrats Fleas <sup>1</sup> Ground beetles Millipedes Mole Crickets Pillbugs Scorpions Silverfish Sod Webworm Sowbugs Spiders	0.4-0.8 / 1000 sq. ft.	Use 4-25 gallons of spray volume when making applications.  As the insect presence becomes moderate to high, the higher product application rates should be utilized.  Per year, apply no more than 2.0 pound of active ingredient per acre.  <sup>1</sup> Fleas: For greater residual control and quick knockdown of fleas, or if the target area is subject to arid weather conditions, lawn height exceeds 3 inches, or lawn is overly dense, the higher application rates should be utilized. Apply again as required. Application penetration may be augmented by use of this product with compatible wetting agents or surfactants.

**OTHER USES**

PREMISES (Agricultural Use Only)			
SITE	TARGET PESTS	APP. RATE	COMMENTS
For Application In: Barns, Dairies, Feedlots, Poultry houses, Swine and Livestock houses, Stables	House flies, Stable flies and other manure breeding flies  Also facilitates control of Cockroaches, Mosquitoes and Spiders	4 oz. to 12.5 gallons of water Apply by sprayer at 1 gallon per 750 sq. ft. of space	Only residual surface application may be made by spraying walls and ceiling directly. Apply again as required. Do not apply more than once every 14 days.  Do not treat manure or litter.
<ul style="list-style-type: none"> <li>Residual fly spraying to lessen or eradicate fly breeding sites should be used only as a supplement to proper manure management and general sanitation.</li> <li>Do not apply directly to livestock or poultry.</li> <li>Do not allow pesticide to contaminate feed or water.</li> </ul>			

26/26

## STORAGE AND DISPOSAL

This product should be stored at temperatures above 40°F (5°C).

Thoroughly agitate container prior to use if possible. In the event of crystal formation, place pesticide in a room at ambient temperature 70°F (21°C) until crystals dissolve.

Do not use or store near heat or open flame.

Keep this product out of reach of children and animals at all times. Store this product in a cool, dry place in its original container only. Do not expose the product to excessive heat. Open the product container carefully and, after use, replace the container lid by thoroughly tightening the screw cap. Keep product containers tightly closed when not in use. Damaged or leaking containers should be discarded. Do not put concentrated or diluted product into containers that are used for food or drink.

For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between the pesticides to provide clear identification.

**To Contain a Spill:** If the product is a liquid, surround the spill with a barrier and then absorb liquid by covering it with cat litter, sand or a commercial clay. If the product is dry material, cover the spilled product to prevent the material from spreading. If the product container is damaged, place the entire container along with the product in a secure receptacle and clearly label the contents. For any type of product spill, avoid contact with the spilled product and evacuate the area, keeping all unprotected persons and animals at a safe distance.

### 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 at the nearest EPA Regional Office for guidance.

### Container Disposal

**Metal Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and Local procedures.

**Plastic Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or dispose of in a sanitary landfill, or incineration, or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

**Returnable/Refillable Sealed Container:** Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

## ATTENTION

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

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## CONDITIONS OF SALE AND WARRANTY

The **Directions For Use** of this product reflects the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, 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 use of the product in a manner inconsistent with its labeling, all of which are beyond the control of MICRO FLO COMPANY LLC ("MICRO FLO") or the Seller. All such risks shall be assumed by the Buyer. MICRO FLO warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

MICRO FLO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT PERMITTED BY LAW, MICRO FLO AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. MICRO FLO and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of MICRO FLO.

## 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

## MICRO FLO PERMETHRIN 3.2 AG

Active Ingredient	
Permethrin*	36.8%
Other Ingredients**	63.2%
<b>TOTAL</b>	<b>100.0%</b>

\*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

<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give any liquid to the person.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

**NOTE TO PHYSICIAN:** Contains petroleum distillates – vomiting may cause aspiration pneumonia

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### EMERGENCY TELEPHONE NUMBERS:

(800) 424-9300	CHEMTREC (transportation and spills)
(800) 832-HELP (4357)	Human Health
(800) 345-4735	ASPCA (animal health)

## 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.

### Environmental Hazards

This product is highly toxic to bees exposed to treatment and for 3 days following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. The 3 day limitation does not apply if the applicator operates in a state with a formal, state-approved bee protection program, and the applicator follows all applicable requirements of the state-approved program designed to ensure that managed bees are not present in the treatment area during this time period.

This product is extremely toxic to fish and aquatic 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 contaminate water by cleaning of equipment or disposal of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in nearby areas.

### Physical/Chemical Hazards

Do not use or store near heat or open flame.

## STORAGE AND DISPOSAL

This product should be stored at temperatures above 40°F (5°C).

Thoroughly agitate container prior to use if possible. In the event of crystal formation, place pesticide in a room at ambient temperature 70°F (21°C) until crystals dissolve.

Do not use or store near heat or open flame.

Keep this product out of reach of children and animals at all times. Store this product in a cool, dry place in its original container only. Do not expose the product to excessive heat. Open the product container carefully and, after use, replace the container lid by thoroughly tightening the screw cap. Keep product containers tightly closed when not in use. Damaged or leaking containers should be discarded. Do not put concentrated or diluted product into containers that are used for food or drink.

For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between the pesticides to provide clear identification.

**To Contain a Spill:** If the product is a liquid, surround the spill with a barrier and then absorb liquid by covering it with cat litter, sand or a commercial clay. If the product is dry material, cover the spilled product to prevent the material from spreading. If the product container is damaged, place the entire container along with the product in a secure receptacle and clearly label the contents. For any type of product spill, avoid contact with the spilled product and evacuate the area, keeping all unprotected persons and animals at a safe distance.

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**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 at the nearest EPA Regional Office for guidance.

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EPA Reg. No. 51036-434  
EPA Est. No. 51036-GA-001

Net Contents: \_\_\_ gallons  
ADxxxxxx

Manufactured By:  
Micro Flo Company LLC  
PO Box 772099  
Memphis, TN 38117

***BASE LABEL FOR BOOKLET***