

51036-319

2-12-2003

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

FEB 12 2003

Ms. Pam Bruce  
Micro Flo Company LLC  
P.O. Box 772099  
Memphis, TN 38117-2099

Subject: Amendment Updating First Aid, Precautionary Language, Ornamental Trees and  
Adding Fruit & Nut Trees, etc.; CRP Certification  
Permethrin 3.2 T&O  
EPA Registration Number: 51036-319  
Your Resubmission Dated November 14, 2002, as Amended by Email  
January 30, 2003

Dear Ms. Bruce:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments below. Two copies of the finished labeling must be submitted prior to releasing the product for shipment. A stamped copy of the label is enclosed for your records.

1. In the second paragraph of the "General Application Instructions" for "ORNAMENTAL AND LAWN USE", revise the sentence "Permethrin 3.2 T&O may be applied by ground equipment only" to read as follows:  
  
"Apply Permethrin 3.2 T&O by ground application only. Do not apply by air."
2. Revise the last sentence of the paragraph under "RECOMMENDED APPLICATION RATES FOR FRUIT AND NUT TREES AROUND RESIDENTIAL SITES ONLY" on page 9 to read: "The maximum application rate of Permethrin 3.2 T&O insecticide is ½ teaspoon per 1 gallon per 436 sq. ft."
3. Make the following changes to the last column of the table for Fruit and Nut Trees Around Residential Sites on pages 9 and 10:
  - a. Change the column heading from "Crop" to "Restrictions" or "Application Restrictions".

- b. Revise the last restriction for "Almond" to read "Do not apply more than 0.8 fluid ounces per 436 sq. ft. per year."
- c. Revise the restriction for "Apples" to read "Do not apply more than 0.24 fluid ounces per 436 sq. ft. per year."
- d. Revise the last restriction for "Filberts" to read "Do not apply more than 0.64 fluid ounces per 436 sq. ft. per year."
- e. Revise the last restriction for "Peaches" to read "Do not apply more than 0.60 fluid ounces per 436 sq. ft. per year."
- f. Revise the last restriction for "Pears" to read "Do not apply more than 0.32 fluid ounces per 436 sq. ft. per year."
- g. Revise the second sentence for "Pistachios" to read "Do not apply more than 0.32 fluid ounces per 436 sq. ft. per year."

If you have any questions regarding this action, please call Susan Stanton at (703) 305-5218.

Sincerely,



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

Enclosure

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PERMETHRIN 3.2 T&O  
For Agricultural/Commercial Use Only

An insecticide for use to control insect pests on lawns, ornamental trees and shrubs and around buildings for perimeter insect control including landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields, applications to agricultural structures and livestock.

ACTIVE INGREDIENT:

\*Permethrin\*\* ..... 36.8%  
INERT INGREDIENTS\*\*\* ..... 63.2%  
100.0%

\*(3-Phenoxyphenyl)methyl (+/-) cis-trans 3-(2,2-dichloroethenyl)-  
2,2-dimethyl-cyclopropanecarboxylate  
\*\*cis/trans ratio: Max. 55% (+/-) cis and min. 45% (+/-) trans  
\*\*\*Contains petroleum distillates  
Contains 3.2 pounds permethrin per gallon

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

FEB 12 2003

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
51036-319

IF INHALED:

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

IF IN EYES:

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

IF SWALLOWED:

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

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

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

NOTE TO PHYSICIAN: This product contains aromatic hydrocarbons which can produce a severe pneumonitis if aspirated, consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

EPA Reg. No. 51036-319

EPA Est. No. 51036-GA-001

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AD012203

NET CONTENTS: 1 Quart

Manufactured By:  
MICRO FLO COMPANY LLC  
P.O BOX 772099  
MEMPHIS, TN 38117

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)

##### CAUTION

CAUTION. Harmful if swallowed or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

##### EMERGENCY NUMBERS:

- Transportation or spill, call CHEMTREC 800-424-9300.
- Human health, call Poison Control Center at 800-900-4044.
- Animal health, call ASPCA at 800-345-4735.

##### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category D on an EPA chemical resistance category selection chart.

Applicators and other handlers who handle this pesticide for any use covered by Worker Protection Standard (CFR Part 170)--in general, only agricultural-plant uses are covered--must wear:

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

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

##### ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS
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Users should:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to bees exposed to direct treatment or residues on crops or weeds. Do not apply this product or allow it to drift to crops or weeds on which bees are actively foraging. Additional information may be obtained from your Cooperative Extension Service. 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 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.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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.

Shake well before using.

#### CONTAINER USE DIRECTIONS FOR THE 1 QUART CONTAINER

1. Remove the measuring chamber cap and induction seal. Replace cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring: remove fill chamber cap and dispense according to markings on side of bottle.

For advice concerning current control practices with relation to the specific local conditions, consult resources in structural

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pest control and state cooperative extension and regulatory agencies.

#### 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 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:

1. Coveralls.
2. Chemical-resistant gloves, such as barrier laminate or butyl rubber.
3. Shoes plus socks.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses. Do not allow people or pets on treated surfaces until the spray has dried. Do not touch treated surface until dry.

#### STORAGE AND DISPOSAL

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

STORAGE: Store at temperatures above 40F (5C). If separation occurs during storage, and less than entire contents of container are to be used, remix by inverting and shaking the container several times until contents are homogeneous. If crystals have formed, warm to room temperature (70F) (21C) by room heating from 24-48 hours and shake occasionally until crystals dissolve and

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product appears uniform. Do not use external source of heat for warming container. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. To confine spill: If liquid, dike surrounding area or absorb with sand, catlitter, or 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. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. 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: Plastic Containers---Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Metal Containers---Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not cut or weld metal containers.

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

#### 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 nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

PERMETHRIN 3.2 T&O insecticide should be applied continuously for the duration of the water application. PERMETHRIN 3.2 T&O should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable carrier is used.

#### ORNAMENTAL AND LAWN USE

(Including Greenhouses, Interiorscapes and Plantscapes), Lawns, Trees and Shrubs

#### General Application Instructions:

PERMETHRIN 3.2 T&O may be used to control insect pests on ornamentals and lawns in landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

PERMETHRIN 3.2 T&O is a 3.2 pounds per gallon formulation of the insecticide permethrin. Apply PERMETHRIN 3.2 T&O when insects appear or feeding is noticed. The higher rate should be used as pest populations increase. PERMETHRIN 3.2 T&O may be applied by ground equipment only. Use sufficient water to obtain full



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coverage.

Do not apply more than 2.0 lb. a.i./A/year.

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

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 areas. Consult your local or state pest management 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 suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

#### RECOMMENDED APPLICATION RATES

CROP	PEST	RECOMMENDED RATE	SPECIFIC INSTRUCTIONS
Ornamentals in greenhouse and interiorscapes, in residential landscaped areas and landscaped areas around institutional, public, commercial and industrial building parks, recreational areas and athletic fields. Including woody and herbaceous Nonedible ornamentals and non-bearing plants of fruiting species	Ants Aphids Bagworm Beet Armyworm Birch leafminer Cabbage Looper Cankerworms Citrus Thrips Fungus Gnats Gypsy Moth Caterpillars Heliothis spp. Japanese Beetles Lace Bug Leaf Feeding Caterpillars Leafminers Leafhoppers Leafrollers Lygus Bugs Mealybugs Pine Sawflies Plant Bugs Root Weevils (Adult) Tent Caterpillars Webworms	4 to 8 fl. oz. Per 100 gallons	Apply sufficient volume of water to adequately cover foliage.  Use higher rate for moderate to high infestations.  Direct application to blooms may cause browning of petals.  Marginal leaf burn may occur on Salvia, Dieffenbachia and Pteris Fern.

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CROP	PEST	RECOMMENDED RATE	SPECIFIC INSTRUCTIONS
	Whiteflies Zimmerman Pine Moths		
Ornamental Trees, including Evergreens*	Clearwing Moth Borers, Ash Borer, Banded ash Clearwing, Dogwood borer, Lesser peachtree borer, Lilack borer, Oak borer, Peachtree borer, Rhodendron borer	1 to 2 quarts per 100 gals.	Apply to the lower branches and trunk directly prior to adult emergence. Adult Emergence varies according to pest species, host tree, environmental conditions and geographic location Thorough coverage of bark is required for control.
	Bark Beetles Dendroctonus spp., Ips. Spp., Elm Bark Beetles, Mountain pine beetle, Pine engravers, Turpentine beetles, Western pine beetle	2 to 5 qts per 100 gals.	
	Coleopteran borers, Bronze birch borer, Flatheaded appletree borer	2 to 5 qts per 100 gals.	
	For maximum Residual control Of the above listed pests	5.35 qts per 100 gals.	
Lawns, (around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields) and grass nurseries	Chinchbugs Grubs Pill Bugs Sod Webworms  (See also list of pests under Pest Control On Outside Surfaces and Around Buildings)	0.4 to 0.8 fl. oz. Per 1000 sq. ft.-	Apply using sufficient water to provide adequate coverage.

\*To control Coneworm, Seed Bugs--Use PERMETHRIN 3.2 T&O at the following rates:

For high volume sprayers: Use 8 ounces in 100 gallons of water.  
Apply 5 to 10 gallons of finished spray per tree.

For low volume sprayers: Use 42 ounces in 100 gallons of water.

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Apply 1 to 2 gallons per tree.

To control Webbing Coneworm--make first application within 1 week of female flower closure or peak pollen flight.

To control other coneworms and seed bugs--make first application within 30 days following flower closure.

RECOMMENDED APPLICATION RATES FOR FRUIT AND NUT TREES AROUND  
RESIDENTIAL SITES ONLY

Apply the appropriate amount of Permethrin 3.2 T&O insecticide (see table below) in 1 gallon per 436 sq. ft. Permethrin 3.2 T&O insecticide may be diluted and applied in greater volumes of water providing that the maximum application rates listed below are not exceeded. For example: when attempting to control Navel Orangeworm on almonds using an application volume of 2 gallons per 436 sq. ft., the maximum legal dilution of Permethrin 3.2 T&O insecticide is 1/2 teaspoon per 1 gallon.

TREE	PEST	RECOMMENDED RATE	CROP
Almond	Navel Orangeworm Peach Twig Borer	1/2 to 1 tsp. per 1 gal/436 sq. ft.	Do not harvest nuts within 7 days after application. Do not apply more than .32 fluid ounces per 436 sq. ft. during hull split. Do not apply more than 80 fluid ounces per year.
Apples	Green Fruitworm Oblique Banded Leafroller Plum Curculio Redbanded Leafroller Rosy Apple Aphid Spotted Tentiform Leafminer Tarnished Plant Bug White Apple Leafhopper	1/4 to 1/2 tsp per 1 gal/436 sq. ft.	Do not apply more than 24 fluid ounces per year.
Cherries	Green Fruitworm Lesser Peachtree Borer Plum Curculio Redbanded Leafroller Rose Chafer Tarnished Plant Bug	1/4 to 1/2 tsp per 1 gal/436 sq. ft.	Do not harvest fruit within 3 days after application. Do not make more than 4 applications per year. Do not make more than 3 applications after petal fall.
Filberts	Filbertworm Oblique Banded Leafroller	1/2 to 1 tsp. per 1 gal/436 sq. ft.	Do not harvest nuts within 14 days after application. Do not apply more than 64 fluid ozs per year.
Peaches	Green Fruitworm Lesser Peachtree Borer Oriental Fruit Moth Peach Twig Borer Plum Curculio Rose Chafer Tarnished Plant Bug	1/4 to 1/2 tsp per 1 gal/436 sq. ft.	Do not harvest fruit within 14 days after application. Do not apply more than 60 fluid ozs per year.

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TREE	PEST	RECOMMENDED RATE	CROP
Pears	Pear Psylla	½ to 1 tsp. Per 1 gal/436 sq ft	Apply only during dormant through delayed dormant growth periods. Do not apply more than 32 fluid ounces per year.
Pistachios	Leaffooted Bugs Navel Orangeworm Peach Twig Borer Plant Bugs StinkBugs	½ to 1 tsp. Per 1 gal/436 sq. ft.	Nuts may be harvested on the day of application. Do not apply more than 32 fluid ounces per year. Do not apply after 10 percent hull split.

1 fl oz = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Permethrin 3.2 T&O insecticide.

Permethrin 3.2 T&O insecticide is not for use on commercial fruit and nut trees.

#### SPRAY DRIFT PRECAUTIONS

All ground application equipment must be properly maintained and calibrated using appropriate carriers. Do not make ground applications during temperature inversions. Make ground applications when wind velocity favors target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes, or natural ponds, estuaries, and commercial fish farm ponds.

#### PEST CONTROL ON OUTSIDE SURFACES AND BUILDINGS

Apply PERMETHRIN 3.2 T&O using a 0.5% emulsion as a residual spray to outside surfaces of buildings including, but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, other residential structures, commercial, industrial and institutional buildings, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen.

PERIMETER TREATMENT: Apply to a band of soil and vegetation 6 to 10 feet wide around and adjacent to the structure. Also, treat the foundation of the structure to a height of 2 to 3 feet. Use a spray volume of 2 to 10 gallons of emulsion per 1000 square feet. Higher volumes of water may be needed if mulch or leaf litter is present or foliage is dense. House siding may be treated if pests such as Gypsy moth adults and caterpillars, boxelder bugs, elm leaf beetles, earwigs or silverfish are present.

### APPLICATIONS TO OUTSIDE SURFACES

PESTS	SPECIFIC INSTRUCTIONS																				
Ants	Apply as a pinstream, as a fine/coarse, low pressure spray 20 psi or less), as a spot treatment or with a paintbrush. Treat where pests are found or entry points of the structure such as window and door frames and along the foundation.																				
Ant Mounds <sup>1</sup>																					
Armyworm																					
Fire Ants																					
Bees	<sup>1</sup> Drench Method: Apply 1-2 gallons of emulsion to each mound area by sprinkling the mound until it is wet and treat a 4 foot diameter circle around the mound. Use the higher volume for mounds larger than 12''. For best results, apply in cool weather, such as in early morning or late evening hours, but not in the heat of the day.																				
Carpenter Bees																					
Bark Beetles <sup>1</sup>																					
Borers <sup>1</sup>																					
Boxelder Bugs <sup>2</sup>	<sup>2</sup> Boxelder Bugs, Elm Leaf Beetles, Gypsy Moth Caterpillars: Spray tree trunks, building siding or wherever pests congregate, thoroughly but not to the point of runoff.																				
Centipedes																					
Cockroaches																					
Asian cockroaches																					
Crickets	<sup>1</sup> Borers and Bark Beetles: To prevent infestation of trees and woody ornaments, spray the bark thoroughly but not to the point of runoff.																				
Mole Crickets																					
Earwigs																					
Elm Leaf Beetles <sup>1</sup>																					
Firebrats	<sup>4</sup> Fleas: Mix 1.6-3.2 oz. of PERMETHRIN 3.2 T&O in 16 to 100 gallons of water and apply to 400Q square feet of lawn. Use the lower rate to knock down existing fleas and the higher rate where faster knockdown or greater residual is desired. For example:																				
Fleas <sup>1</sup>																					
Ground Beetles																					
Gypsy Moths (Adults & caterpillars) <sup>2</sup>																					
Millipedes	<table><tr><td><u>Lawn</u></td><td><u>Sq Ft</u></td><td><u>Oz of product</u></td><td><u>Gals of Water</u></td></tr><tr><td>Small</td><td>2,000</td><td>0.8 to 1.6</td><td>8 - 50</td></tr><tr><td>Sowbugs</td><td>4,000</td><td>1.6 to 3.2</td><td>16 - 100</td></tr><tr><td>Spiders</td><td>Medium 6,000</td><td>2.4 to 4.8</td><td>24 - 150</td></tr><tr><td>Wasps</td><td>Large 12,000</td><td>4.8 to 9.6</td><td>48 - 300</td></tr></table>	<u>Lawn</u>	<u>Sq Ft</u>	<u>Oz of product</u>	<u>Gals of Water</u>	Small	2,000	0.8 to 1.6	8 - 50	Sowbugs	4,000	1.6 to 3.2	16 - 100	Spiders	Medium 6,000	2.4 to 4.8	24 - 150	Wasps	Large 12,000	4.8 to 9.6	48 - 300
<u>Lawn</u>	<u>Sq Ft</u>	<u>Oz of product</u>	<u>Gals of Water</u>																		
Small	2,000	0.8 to 1.6	8 - 50																		
Sowbugs	4,000	1.6 to 3.2	16 - 100																		
Spiders	Medium 6,000	2.4 to 4.8	24 - 150																		
Wasps	Large 12,000	4.8 to 9.6	48 - 300																		
Scorpions	Lawn should not be longer than 3 inches at the time of application. Repeat application if necessary. Application in combination with compatible surfactants may enhance penetration. Arid climates generally require the higher volumes.																				
Silverfish																					
Sowbugs																					
Spiders																					
Wasps																					
Ticks <sup>4</sup>																					
Flies																					
Carpenter Ants																					
Chinchbugs <sup>1</sup>																					
Pill Bugs																					
Sod Webworms																					

Subsurface Injection of Permethrin 3.2 T&O to Flush Mole Crickets: (In New York State, this product may NOT be used for subsurface injection). To increase flushing of mole crickets with subsurface insecticide applications, use Permethrin 3.2 T&O with a companion mole cricket control product and apply at the rate of 0.2 to 0.8 fluid ounces of Permethrin 3.2 T&O per 1,000 square feet. Applications must be made in accordance with the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be used with any product with label prohibitions against such mixing.

### APPLICATIONS TO AGRICULTURAL STRUCTURES

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## For Agricultural Use Only

### General Application Instructions

PERMETHRIN 3.2 T&O can be used for residual pest control in and on buildings and structures used for agricultural purposes, and their immediate surroundings.

PERMETHRIN 3.2 T&O is an emulsifiable concentrate to be diluted with water and applied as an emulsion to control pests in and around agricultural structures. Pests controlled are listed in the accompanying tables. PERMETHRIN 3.2 T&O may be applied directly as a space or surface spray to walls and ceiling as a residual surface treatment. When applied as a fog or fine mist direct the spray toward the ceiling and upper corners until the area is filled with mist. For best results, close doors and windows before spraying and keep them closed for ten to fifteen minutes. Vacate the treated area and ventilate before reoccupying. Repeat treatment as necessary.

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

#### AS A SPACE SPRAY - LIVESTOCK PREMISES

FOR APPLICATION IN	TARGET INSECTS	METHOD OF APPLICATIONS	DILUTE	APPLICATION RATE
Dairies, Barns, feedlots, Stables, Poultry Houses, Swine and Livestock Houses	Lesser Mealworms Darkling Beetles House Flies Stable Flies and other manure breeding flies	Sprayer	4 fluid ounces to 12.5 gallons of water	1 gallon per 750 square feet of surface
	Also aids in the reduction of cockroaches, mosquitoes and spiders	Fog or Mist	1.5 to 2.0 fluid ounces to 1 gallon of water	2 ounces per 1,000 cubic feet of surface

Avoid contamination of feed and water. Do not apply dilutions for premise treatment directly on livestock or poultry.

#### AS A LIVESTOCK SPRAY

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ANIMALS	INSECT	DILUTE & USE	APPLICATION RATE
Lactating and Non-lactating Dairy Cattle and Goats, Beef Cattle and Sheep	Horn Flies only	4 fl. ounces to 50 gallons water (treats 200 head)  0.025% active ingredient (AI)  High pressure spray	1 quart of coarse spray per animal.
	Horn flies Face flies Stable flies House flies Horse flies Deer flies Black flies Eye gnats Mange mites Scabies mites Ticks Lice Sheep keds	4 fl. ounces to 25 gallons water (treats 50-100 head)  0.05% AI  High pressure spray	1-2 quart of coarse spray per animal over whole body surface. For mange, scabies, ticks and lice thoroughly wet animal. Repeat application 10-14 days for mites and lice
	Horn flies Face flies Stable flies Ear ticks Lice	4 fl. ounces to 2 1/2 gallons water (treats 64-80 head)  0.5% AI  Low pressure spray (hand pump sprayer)	For fly and lice control, spray mid-line from face to tailhead to point of runoff (4-5 fl oz) for ear tick control spray directly into each ear (1/2 fl oz each).
	Horn flies Face flies Stable flies	4 fl oz to 10 gallons diesel oil or suitable mineral oil.  0.125% AI  Backrubber, self oiler	Keep rubbing device charged. Results improve by daily forced use.
Poultry	Northern fowl mites Lice	1 - 4 fl oz to 3 3/4 gallons water (treats 1500 head)  0.08-0.33% AI  High pressure spray	1 gallon of coarse spray per 100 birds paying particular attention to vent area.
Swine (Allow 5 days between last treatment and slaughter)	Lice Mange	4 fl oz to 25 gallons water (treats 50-100 head)  0.05% AI  Sprayer or dip	Thoroughly wet or dip animals including ears. For mange, spray pen floors, sides and bedding. Repeat at 14 days.

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ANIMALS	INSECT	DILUTE & USE	APPLICATION RATE
Horses	Horn flies	1/4 fl oz to 1 pint water	1-2 fl oz spray per animal. Spot treat back, face, legs, tail and ears
	Face flies	0.625% AI	
	Stable flies	Low pressure spray	Thoroughly wet animal to skin with sponge or rag. Let drip dry
	House flies		
	Horse flies	1/4 fl oz to 1 1/4 gallons water	
	Black flies		
	Eye gnats	0.0626% AI	
	Mange mites		
	Scabies mites	Dip wash	
	Ticks		
	Lice	4 fl oz to 20 gallons water	Make sure all areas are soaked to skin. Let dip dry on animals. Do not rinse off.
	Fleas		
		0.0625% AI	

#### ATTENTION

Do not apply to pets, crops, or sources of electricity.

Firewood is not to be treated.

Use only in well ventilated areas.

Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils or water supplies.

Dealers Should Sell in Original Packages Only

#### TERMS OF SALE OR USE

On purchase of this product buyer and user agree to the following conditions:

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