



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

EPA Reg. Number:
279-3314

Date of Issuance:
JAN 30 2007

Term of Issuance:
Conditional

Name of Pesticide Product:
F5997 ME Insecticide/Miticide

NOTICE OF PESTICIDE:

- Registration
- Reregistration

(Under FIFRA as amended)

Name and Address of Registrant (include ZIP Code):

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

~~Notes: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence, the registrant must refer to this registration number.~~

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is **conditionally** registered in accordance with FIFRA sec. 3(c)(7)(A), provided that:

1. You will submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. You will make the following label changes before you release the product for shipment:
 - a) Revise the EPA Registration Number to read "EPA Reg. No. 279-3314."
 - b) The acute toxicity profile for this product is as follows:

Acute oral toxicity	III
Acute dermal toxicity	IV
Acute inhalation toxicity	IV
Primary eye irritation	III
Primary skin irritation	IV
Dermal sensitization	Negative

Based on the acute toxicity profile above please revise the Precautionary Statement as follows:

Signature of Approving Official:

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

Date:

1/30/2007

Enclosure

"Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco."

Also, based on the acute toxicity for acute dermal and inhalation (both Toxicity Category IV, you are not required to have an "If inhaled" or "If on skin or clothing" first aid statement.

- c) Delete all references "Treated wood can be burned as firewood or used for lumber one month after treatment" or provide data to support this statement. This statement is contradictory to the statement "Do not treat firewood with this product" on the last accepted labeling for this product..
- d) On page 4, under Mosquito Control, revise last sentence of the second paragraph to read as follows:

"Use this product for control of mosquitoes that may transmit dog heartworm, and arboviruses such as, but not limited to, West Nile fever, eastern equine encephalitis, and St. Louis encephalitis".
- e) On page 3 and 4, delete the application method under Indoor Use, "general surface" and direction to apply on a square ft basis under the indoor directions for nuisance ants, i.e., "Dilute 0.5 to 1.0 fluid oz of f5997ME per gallon of water and apply as a crack and crevice or spot treatment to areas ... etc". This statement is contradictory to the statement "Do not apply a broadcast application to interior surfaces of homes".
- f) Revise all bed bugs claim to "Aids in Control" claims.
- g) On page 4, under "Pests Under Slabs", exclude termites from this section. So replace with "Pests Under Slabs - Except Termites". Also delete the termite icon on the front panel.
- h) Under the heading "Mosquito Control" add the sub-heading "Wide Area Application is Not Allowed."
- i) The efficacy data submitted in support of this registration is incomplete. All data submissions must include the raw data sheets for the trials. Submit need data within six months of the date of registration of this product. See enclosed efficacy review.
- j) Replace "Inert Ingredients" with "Other Ingredients" in the Ingredients section.
- k) Revise sections of the warranty statement as follows. Note that these changes should be made for similar warranty statements on other FMC products:

- (1) Change "should" to "must" in the second paragraph.

3 8 11

- (2) Add the following statement, "To the extent consistent with applicable law" to the beginning of the statements, "FMC makes no warranties of merchantability or of fitness ... etc" and "The exclusive remedy of the user or buyer and the exclusive liability ... etc".
3. With respect to the application from submitted please complete Section III of the form.
4. The data matrix submitted refers only to bifenthrin. Submit a matrix that lists both bifenthrin and pyriproxyfen in the ingredient section. This matrix should list the new data submitted including the efficacy data. A second matrix should be submitted listing only bifenthrin in the ingredient section that covers only that data pertaining to bifenthrin.
5. Please submit three (3) copies of your final printed labeling before releasing the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing amended labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this action, please contact BeWanda Alexander of my team at (703) 305-7460.

4 8 11

ACCEPTED
with COMMENTS
In EPA Letter Dated
JAN 30 2007

F5997 ME

INSECTICIDE/MITICIDE

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
279-3314

To control pests indoors and outdoors on residential, institutional, public, commercial, and industrial buildings, food handling establishments and lawns, ornamentals, parks, recreational areas and athletic fields.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

- Contains an insect growth regulator to break the life cycle of listed pests
- Labeled for use in food areas of food handling establishments
- Controls pyrethroid-resistant pests
- Kills eggs, immatures and adult insects
- Provides up to 1 month residual control of house flies
- Kills fleas for up to 3 months

FIRST AID

If swallowed

- Call poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

If inhaled

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

If 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.

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.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.
For Information Regarding the Use of this Product Call 1-800-321-1FMC (1362).

- Perimeter [icon]
- Indoor [icon]
- Outdoor [icon]
- Food Areas [icon]
- Greenhouse [icon]
- Ticks [icon]
- Flies [icon]
- Cockroaches [icon]
- Termite [icon]
- Mosquitoes [icon]
- Bed bug [icon]
- Fire Ants/Ant [icon]
- Fleas [icon]
- Spiders [icon]

EPA Reg. No. 279-xxxx EPA Est. 279-

Active Ingredient:	By Wt.
Bifenthrin*	8.0%
Pyriproxyfen.....	0.5%
Inert Ingredients:	91.5%
	100.0%

*7 ME contains 2/3 pound bifenthrin per gallon.

*Cis isomers 97% minimum, trans isomers 3% maximum
U.S. Patent No. 4,238,505

FMC Corporation
Agricultural Products Group
Philadelphia PA 19103

Net Contents

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.
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. In addition, all pesticide handlers must wear a respiratory protection device¹ when working in a non-ventilated space. All pesticide handlers must wear protective eyewear when working in non-ventilated space.

¹Use one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.

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

User Safety Recommendations

Users Should:

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

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

Physical and Chemical Hazards

Do not apply water-based dilutions of F5997 ME to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

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DIRECTIONS FOR USE

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

Do not apply a broadcast application to interior surfaces of homes.

F5997 Submission Label 6/30/06

Do not apply by air.

Do not apply in nurseries.

Do not apply this product through any kind of irrigation system.

Not for use on sod farm turf, golf course turf, or grass grown for seed.

AGRICULTURE 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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton.
- Shoes plus socks

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 requirement specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.

*These requirements apply only to the greenhouse uses on this label

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.

**These requirements apply to all other non-greenhouse uses on this label

Use Directions for Premeasured water-soluble bags

1. Fill tank with a minimum of half the needed water for the final tank mix.
2. Remove the appropriate number of bags needed to prepare the final tank solution from their outer container and add the bags to the water in tank. Do not open the individual water soluble bags.
3. Fill the tank with the remaining water as needed.

For example, Add 5 1oz water soluble bags to 4.9 gallons water to make 5gallons of 0.066% solution.

Use Directions for Tip-N-Measure® Container

1. Remove the measuring chamber cap and induction seal. Replace the 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.

Use Directions for Squeeze-N-Measure Container

1. Remove the measuring chamber cap and induction seal.
2. Replace cap loosely on measuring chamber to allow venting.
3. Squeeze container gently until liquid fills measuring chamber.
4. Remove measuring chamber cap and dispense into proper application equipment.
5. Replace cap onto measuring chamber and **Securely Tighten.**

STORAGE AND DISPOSAL

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

Pesticide Storage: 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 container.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: (800) 331-3148.

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

Pesticide Disposal: Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:

Plastic Container: 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.

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

General Information on the Use of this Product

F5997 ME controls a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses, interiorscapes including hotels, shopping malls, office buildings, etc., and outdoor landscapes, such as around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application. F5997 ME may also be used in feed and food handling establishments, and in/around/under structures.

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

F5997 ME Dilution Chart

Applic. Volume:		Applic. Rate:	Fluid Ounces of F5997 ME Diluted to these Volumes of Finished Spray			
			1 Gallon	5 Gallons	10 Gallons	100 Gallons
..i.	Gal/1000 sq. ft.	Fl. oz./1000 sq. ft.	fl. oz.	fl. oz.	fl. oz.	fl. oz.
0.008	1.0	0.125	0.125	0.63	1.25	12.5
0.012	1.0	0.18	0.18	0.90	1.8	18.0
0.016	1.0	0.25	0.25	1.25	2.5	25.0
0.022	1.0	0.33	0.33	1.67	3.33	33.3
0.033	1.0	0.5	0.5	2.5	5.0	50.0
0.044	1.0	0.67	0.67	3.33	6.67	66.7
0.050	1.0	0.75	0.75	3.75	7.5	75.0
0.066	1.0	1.0	1.0	5.0	10.0	100.0
0.004	2.0	0.125	-	0.31	0.63	6.3
0.006	2.0	0.18	-	0.45	0.90	9.0
0.008	2.0	0.25	0.13	0.63	1.25	12.5
0.011	2.0	0.33	0.17	0.83	1.65	16.5
0.016	2.0	0.5	0.25	1.25	2.5	25.0
0.022	2.0	0.67	0.33	1.67	3.35	33.5
0.025	2.0	0.75	0.38	1.88	3.75	37.5
0.033	2.0	1.0	0.5	2.5	5.0	50.0
0.003	3.0	0.125	-	0.21	0.42	4.2
0.004	3.0	0.18	-	0.30	0.60	6.0
0.006	3.0	0.25	-	0.42	0.83	8.3
0.007	3.0	0.33	0.11	0.55	1.10	11.0
0.011	3.0	0.5	0.17	0.83	1.67	16.7
0.015	3.0	0.67	0.22	1.11	2.23	22.3
0.017	3.0	0.75	0.25	1.25	2.5	25.0
0.022	3.0	1.0	0.33	1.67	3.33	33.3
0.002	4.0	0.125	-	0.16	0.31	3.1
0.003	4.0	0.18	-	0.23	0.45	4.5

0.004	4.0	0.25	-	0.31	0.63	6.3
0.005	4.0	0.33	-	0.41	0.83	8.3
0.008	4.0	0.5	0.13	0.63	1.25	12.5
0.011	4.0	0.67	0.17	0.84	1.67	16.7
0.012	4.0	0.75	0.19	0.94	1.88	18.8
0.017	4.0	1.0	0.25	1.25	2.5	25.0
0.002	5.0	0.125	-	0.13	0.25	2.5
0.002	5.0	0.18	-	0.18	0.36	3.6
0.003	5.0	0.25	-	0.25	0.5	5.0
0.004	5.0	0.33	-	0.33	0.67	6.7
0.007	5.0	0.5	0.1	0.5	1.0	10.0
0.009	5.0	0.67	0.13	0.67	1.33	13.3
0.010	5.0	0.75	0.15	0.75	1.5	15.0
0.013	5.0	1.0	0.2	1.0	2.0	20.0
0.001	10.0	0.125	-	-	0.13	1.3
0.001	10.0	0.18	-	-	0.18	1.8
0.002	10.0	0.25	-	0.13	0.25	2.5
0.002	10.0	0.33	-	0.17	0.33	3.3
0.003	10.0	0.5	-	0.25	0.5	5.0
0.004	10.0	0.67	-	0.33	0.67	6.7
0.005	10.0	0.75	-	0.38	0.75	7.5
0.007	10.0	1.0	0.1	0.5	1.0	10.0

1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons
Do not use household utensils to measure F5997 ME.

General Application Instructions

F5997 ME formulation mixes readily with water and other aqueous carriers. F5997 ME may be tank-mixed with adjuvants, and with other pesticides, including insect growth regulators. When tank mixing F5997 ME with other pesticides, observe all precautions and limitations on each separate product label. The physical compatibility of F5997 ME may vary with different sources of pesticide products, and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions: (1) Add wettable powders to tank water, (2) Agitate, (3) Add liquids and flowables, (4) Agitate, (5) Add emulsifiable concentrates, and (6) Agitate. If a mixture is found to be incompatible following this order of addition, try reversing the order of addition, or increase the volume of water. Note If the tank-mixture is found to be compatible after increasing the amount of water, then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing F5997 ME:

$$(8.5)(\text{Fl. Oz. of F5997 ME added to tank}) / (\text{Gallons of finished spray mix})(128) = \text{Percent Active Ingredient of spray mix}$$

APPLICATION RECOMMENDATIONS

ANT CONTROL

Nuisance Ants Indoors: For best results, locate and treat ant nests. Dilute 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot treatment to areas where ants have been observed or are expected to forage. These areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. When using F5997 ME in combination with baits, apply F5997 ME as instructed above, and use baits in other areas that have not been treated with F5997 ME.

Nuisance Ants Outdoors: For best results, locate and treat ant nests. Apply F5997 ME to ant trails around doors and windows and other places where ants have been observed or are expected to forage. Apply a perimeter treatment using either low or high volume applications described in the "Pest Control on Outside Surfaces and Around Buildings" section of this label. The higher dilutions and/or application volumes, as well as more frequent applications,

may be necessary when treating concrete surfaces for ant control. Maximum control is generally achieved using the following procedure:

- 1) Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
- 2) Treat porous surfaces and vegetation with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of F5997 ME per 1,000 square feet (refer to the F5997 ME Dilution Chart).
- 3) For maximum residual control, dilute 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet.

Carpenter Ants Indoors: Dilute 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot treatment to areas where carpenter ants have been observed or are expected to forage. These areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices and in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks and crevices or drill holes and spray, mist or foam into voids where carpenter ants or their nests are present. When using F5997 ME in combination with baits, apply F5997 ME as instructed above, and use baits in other areas that have not been treated with F5997 ME

Carpenter Ants Outdoors: Apply F5997 ME to carpenter ant trails around doors and windows and other places where carpenter ants have been observed or are expected to forage. For best results, locate and treat carpenter ant nests. Apply a perimeter treatment using either low or high volume applications described in the "Pest Control on Outside Surfaces and Around Buildings" portion of this label. The higher dilutions and/or application volumes, as well as more frequent applications, may be necessary when treating concrete surfaces for carpenter ant control. Maximum control is generally achieved using the following procedure:

- 1) Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet
- 2) Treat the trunks of trees that have carpenter ant trails, or upon which carpenter ants are foraging, using 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and applying this dilution to thoroughly wet the bark from the base of the tree to as high as possible on the trunk
- 3) Treat porous surfaces and vegetation with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of F5997 ME per 1,000 square feet (refer to the F5997 ME Dilution Chart)
- 4) For maximum residual control, dilute 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet.

- To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to locate the interior infested cavity and inject or foam a 0.066% dilution (1.0 fluid oz. of F5997 ME per gallon of water) into the cavity using a sufficient volume and an appropriate treatment tool with a splashback guard.
- To control carpenter ants that are tunneling in the soil, dilute 0.5 to 1.0 fluid oz. of F5997 ME per gallon of water and apply as a drench or inject the application or foam at intervals of 8 to 12 inches. Establish a uniform barrier at the edges of walls, driveways or other hard surfaces where ants are tunneling beneath the surfaces.
- To protect firewood from carpenter ants (and termites), dilute 1.0 fluid oz. of F5997 ME per gallon of water and apply to the soil beneath where the firewood will be stacked at the rate of one gallon of dilution per 8 square feet.

For wood piles and stored lumber apply a 0.066% suspension. Use a hose-end sprayer or sprinkling can to deliver a coarse drenching spray. Treated wood can be burned as firewood or used for lumber one month after treatment. Do not use in structures

For Ant and Fire Ant Mounds use F5997 ME 0.066% dilution as Drench Method: Apply 1-2 gallons of dilution 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.

PEST CONTROL ON OUTSIDE SURFACES AND AROUND BUILDINGS

F5997 ME will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

For control of Ants, Carpenter Ants, Fire Ants, Armyworms, Lady Beetles, Bees, Beetles†, Biting Flies, Boxelder Bugs, Centipedes, Chiggers, Chinch Bugs, Cicadas, Clover Mites, Crickets, Cutworms, Dichondra Flea Beetles, Earwigs, Elm Leaf Beetles, Firebrats, Fleas, Flies, Gnats, Grasshoppers, Hornets, Japanese Beetles†, Midge, Millipedes, Mosquitoes, Moths, Roaches (including Cockroaches), Scorpions, Silverfish, Sod Webworms, Sowbugs (Pillbugs), Spider Mites, Spiders (including Black Widow, Brown Recluse

and Hobo Spiders), Springtails, Ticks (including Brown Dog Ticks), and Wasps

†Not for use in California.
Apply F5997 ME using a 0.02 to 0.066% dilution 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 such as grass areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen. Use a spray volume of up to 10 gallons of dilution per 1,000 square feet. Higher application volumes may be used to obtain the desired coverage of dense vegetation or landscaping materials.

Mixing Directions For 0.02% suspension, mix 0.33 fluid oz. of F5997 ME per gallon of water. For 0.066% suspension, mix 1 fluid oz. F5997 ME per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure F5997 ME. Use the higher rate for heavy pest infestation, quicker knockdown or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity. Repeat application should be limited to no more than once per seven days.

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. Apply 0.33 to 1.0 fluid oz. of F5997 ME per 1,000 square feet in sufficient water to provide adequate coverage (refer to F5997 ME Dilution Chart).

Broadcast Treatment of Wood for the Control of Wood-infesting Insects and Nuisance Pests Outside of Structures

Apply a 0.066% dilution with a fan spray using a maximum pressure of 25 psi. Treatment should be made to thoroughly and uniformly cover the surface but limit excess runoff.

To control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to find the interior infested cavity and inject a 0.066% suspension. To control Bees, Wasps, Hornets, and Yellow Jackets, apply in late evening when insects are at rest. Aim spray at nest openings in ground, bushes and in cracks and crevices which may harbor nests, saturating nest openings and contacting as many insects as possible.

Pests Under Slabs
Infestations of Arthropods, such as Ants, Cockroaches and Scorpions inhabiting under slab area may be controlled by drilling and injecting or horizontal rodding and then injecting 1 gallon of a 0.066% to 0.12% dilution per 10 square feet or 2 gallons of dilution per 10 linear feet.

MOSQUITO CONTROL

To control adult mosquitoes outdoors on residential, institutional, public, commercial and industrial buildings, and lawns, ornamentals, parks, recreational areas and athletic fields.

Apply F5997 ME for mosquito control at an application rate of 0.33 to 1.0 fluid oz. F5997 ME per gallon of water (0.07 to 0.22 lbs bifenthrin/acre), and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray (refer to the F5997 ME Dilution Chart) Use the high rate for residual control of mosquitoes. Use this product for control of urban mosquitoes that may potentially transmit malaria, dog heartworm, and arboviruses such as, but not limited to, West Nile fever, dengue fever, Eastern equine encephalitis, and St. Louis encephalitis.

Apply 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 such as grass areas adjacent to or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, fence lines, storage sheds, barns, and other commercial, residential and non commercial structures, soil, trunk of woody ornamentals, trees, shrubs, ground cover, bedding plants, foliage plants, flowers, non-bearing fruit and nut trees urban areas, parks, campsites, athletic fields, playgrounds, recreational and overgrown waste areas, roadsides and other areas where mosquitoes are found. May also be applied to non-bearing crops or perennial crops that will not produce harvestable raw agricultural commodities during the season of application.

Use the high rate for heavy pest infestation, quicker knockdown, or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure, or if there are signs of renewed insect activity. For the lower use rates, repeat application should be limited to no more than once per seven days. For the high use rate of 1.0 fluid oz. F5997 ME per gallon of water, do not apply more than once per four weeks.

Apply with hand-held and back pack sprayers or mist blowers, ground sprayers, power sprayers, truck mounted hydraulic sprayers or mist blower. Do not apply by air or with hand held or truck mounted cold aerosol ULV sprayers and thermal fogging devices. For best results apply when the mosquitoes are most active. Application during the cooler hours of the night or early mornings is recommended.

Do not apply more than 1.0 fluid oz of F5997 ME per 1,000 square feet (equivalent to 0.22 lbs. bifenthrin/acre) per application

Do not apply when wind speed exceeds 10 MPH.

INDOOR USE

In the home, all food processing surfaces and utensils should be covered during treatment or thoroughly washed before use. Exposed food should be covered or removed.

Use a 0.02% to 0.066% dilution (0.33 to 1 fluid oz. per gallon of water) for residual pest control in buildings and structures and on modes of transport. Apply either as a crack and crevice, pinstream, spot, coarse, low pressure spray (25 psi or less) or with a paint brush.

Apply as a coarse, low pressure, crack and crevice or spot spray to areas where pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Do not use as a space spray. Pay particular attention to cracks and crevices.

Directions: See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section.

F5997 ME is to be diluted with water for spray or brush application. Fill sprayer with the desired volume of water and add F5997 ME. Close and shake before use in order to insure proper mixing. Mix only the amount of solution needed for the application. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity. Repeat application should be limited to no more than once per seven days.

F5997 ME may be converted to a foam and used to treat void spaces, floor drains (to sewers) or as a spot spray on vertical or horizontal surfaces where visual marking of application is desired. Use of a foaming agent like Upgrade™ amplifying foam increases a.i. surface contact time on challenging surfaces and provides visual marking of the application.

Bed bugs: Thorough application should be made to crack and crevices where evidence of bed bugs occurs. This includes bed frames, box springs, inside empty dressers and clothes closets and carpet edges, high and low wall moldings and wallpaper edges. Do not use this product on bed linens, pillows, mattresses or clothes. Remove all clothes and other articles from dressers or clothes closets before application. Allow all treated areas to thoroughly dry before use. Not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in/on mattresses, use products approved for this use.

Use a 0.02% to 0.066% dilution (0.33 to 1 fluid oz. per gallon of water) for residual pest control in buildings and structures and on modes of transport. Apply either as a crack and crevice, pinstream, spot, coarse, low pressure spray (25 psi or less) or with a paint brush.

Cockroaches, Crickets, Firebrats, House Flies, Scorpions, Silverfish, Spiders, and Ticks:

F5997 ME will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

Apply as a coarse, low pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices.

Ants: Apply to any trails, around doors and windows and other places where ants may be found.

Fleas:

F5997 ME will kill fleas for up to 3 months

Apply as a coarse, low pressure spot or crack and crevice treatment to areas frequented by pets, such as under bedding, rugs, next to furniture. Do not apply F5997 ME dilution directly to pets. Treatment should be dry before pet re-entry. Vacuum prior to treatment.

Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs: Apply around doors and windows and other places where these pests may be found or where they may enter premises. Spray baseboards, storage areas and other locations.

Bees and Wasps: To control Bees, Wasps, Hornets, and Yellow Jackets apply a 0.066% -suspension. Application should be made in the late evening when insects are at rest. Thoroughly spray nest and entrance and surrounding areas where insects alight. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

Important: Do not apply dilution until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these structural elements. Do not apply into electrical fixtures, switches, or sockets.

In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried. During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

FOR CONTROL OF STORED PRODUCTS PESTS

(Including Indian Meal Moths, Rice Moths, Tobacco Moths, Flour Beetles, Lesser Grain Borers, Merchant Grain Beetles, Sawtoothed Grain Beetles, Grain Weevils, Warehouse Beetles, Cigarette Beetles, and Dermestid Beetles, Psocids, and other similar pests).

WAREHOUSES and GROCERY/PET STORES: F5997 ME dilution may be applied as a general surface, spot or crack and crevice treatment in food and nonfood storage warehouses and stores. Apply to all areas that may harbor pests, including under and between pallets, bins, and shelves. Do not apply directly to food, grain bins (interior), or animals.

FOOD/FEED HANDLING ESTABLISHMENT APPLICATIONS

Applications of this product are permitted in both food/feed and non-food areas of food/feed handling establishments as a general surface, spot, or crack and crevice treatment.

Food/feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. Included also are areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) of food. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Permitted non-food areas of use include, garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets and storage (after canning or bottling).

Permitted use sites include, but are not limited to: Aircraft (Do not use in aircraft cabins), apartment buildings, bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses and wineries.

General Surface Application: Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. Do not apply directly to food products. Cover or remove all food processing and/or handling equipment during application. After application in food processing plants, bakeries, cafeterias and similar facilities, wash all equipment, benches, shelving and other surfaces which food will contact. Clean food handling or processing equipment and thoroughly rinse with clean, fresh water.

Spot, Crack and Crevice Application: Spot or crack and crevice applications may be made while the facility is in operation; however, food should be covered or removed from area being treated. Do not apply directly to food.

Foam Applications

F5997 ME suspension, from 0.066 to 0.132 % may be converted to a foam with expansion characteristics from 2 to 40 times.

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LAWNS

Apply F5997 ME as a broadcast treatment. Use application volumes of up to 10 gallons per 1000 square feet to get uniform coverage when treating dense grass foliage.

For low volume applications, less than 2 gallons/1000 square feet, immediate irrigation of treated area with at least 0.25 inches of water following application to ensure efficacy of sub-surface pests such as, but not limited to, Mole Crickets, is recommended.

Lawn Application Rates

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, F5997 ME may be applied at up to 1 fl. oz. per 1000 square feet to control each of the pests listed in this Table. The higher application rates should be used when maximum residual control is desired or heavy pest populations occur.

Pest	Application Rate F5997 ME
Armyworms ¹ Cutworms ¹ Sod Webworm ¹	0.18 - 0.25 fluid oz. per 1000 sq. ft.
Annual Bluegrass Weevil perodes) (Adult) ² Banks Grass Mite ⁶ Billbugs (Adult) ³ Black Turfgrass Ataenius (Adult) ⁴ Centipedes Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites ⁶ Pillbugs Sowbugs	0.25 - 0.5 fluid oz. per 1000 sq. ft.
Crane Flies ¹²	0.5 fl oz. per 1000 sq. ft.
Ants Chinch Bugs ⁵ Fleas (Larvae) ⁷ Imported Fire Ants ⁸ Japanese Beetle (Adult) Mole Cricket (Adult) ⁹ Mole Cricket (Nymph) ¹⁰ Ticks ¹¹	0.5 - 1.0 fluid oz. per 1000 sq. ft.

In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

In New York State, do make a single repeat application of F5997 ME if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Comments

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

²Annual Bluegrass Weevil (Hyperodes) adults: Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood (Cornus florida) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

³Billbug adults: Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring

applications targeting billbug adults will also provide control of over-wintered chinch bugs.

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

⁵Chinch Bugs: Chinch Bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch Bugs can be one of the most difficult pests to control in grasses and the higher application rates (Up to 1 fluid oz. per 1000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

⁶Mites: To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, five to seven days after the first, may be necessary to achieve acceptable control.

⁷Flea larvae: Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher volume application when treating these areas to ensure penetration of the insecticide into the soil. Note: if the lawn area is being treated with F5997 ME at 0.25 fluid oz. per 1000 square feet for adult flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.

⁸Imported Fire Ants: Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will eliminate existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Broadcast treatments should apply 1 fluid oz. per 1,000 square feet. Mounds should be treated by diluting 1 teaspoon of F5997 ME per gallon of water and applying 1 to 2 gallons of finished spray per mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. A four foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours. Note: a spray rig that is calibrated to apply 1 fluid oz. per 1,000 square feet of F5997 ME in 5 gallons per 1,000 square feet contains the approximate dilution (1 teaspoon per gallon) that is required for fire ant mound drenches in the spray tank.

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

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

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

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

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest.

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These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

¹²Crane Flies: Treatments can be made to control early to mid-season larvae (approximately August - February) as they feed on plant crowns. Treatments made to late-season larvae (approximately March, April) may only provide suppression

ORNAMENTALS AND TREES

For ornamental applications (including but not limited to trees, shrubs, ground covers, bedding plants, and foliage plants) apply 0.125 to 1.0 fluid oz. of F5997 ME per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. F5997 ME may be diluted and applied in various volumes of water providing that the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz per 100 gallons.) is not exceeded. F5997 ME may be applied through low volume application equipment by dilution with water or other carriers and providing that the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz per 100 gallons) is not exceeded.

Apply the specified application rate as a full coverage foliar spray. Repeat treatment as necessary to achieve control using higher application rates as pest pressure & foliage area increases. Repeat application should be limited to no more than once per seven days.

Certain cultivars may be sensitive to the final spray solution. A small number of plants should be treated and observed for one week prior to application to the entire planting.

¹ of an alternate class of chemistry in a treatment program is recommended to prevent or delay pest resistance

GREENHOUSES AND INTERIORSCAPES

Use F5997 ME, either alone or tank mixed with other products, including insect growth regulators, to control a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses and interiorscapes including hotels, shopping malls, office buildings, etc.

Calculating Dilution Rates using the Ornamental and Greenhouse Application Rates Table and the F5997 ME Dilution Chart (page 3): The following steps should be taken to determine the appropriate dilution of F5997 ME that is required to control specific pests:

- 1) Identify the least susceptible target pest (the pest requiring the highest application rate for control).
- 2) Select an application rate in terms of fluid oz. of F5997 ME.
- 3) Identify your application volume and how much spray mix you want to prepare.
- 4) Use the Dilution Chart to determine the appropriate volume of F5997 ME that must be mixed in your desired volume of water.

Ornamental and Greenhouse Application Rates

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, F5997 ME may be applied at up to 1 fluid oz. per 1,000 square feet (43.5 fl. oz. per 100 gallons) to control each of the pest listed in this Table. The higher application rates should be used when maximum residual control is desired.

Apply the specified rate as a full coverage foliar spray. Repeat as necessary to achieve control using higher rates as pest pressure and foliage increases.

Certain cultivars may be sensitive to the final spray solution. A small number of plants should be tested prior to application of the entire planting.

Use an alternate class of chemistry in the treatment program is recommended to prevent or delay resistance.

Pest	Application Rate F5997 ME	
	Fluid Ounces per 1,000 square feet	Fluid Ounces per 100 gallons
Bagworms ¹² Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25	5.4 - 10.8
Adelgids† Aphids Bees Beet Armyworm Beetles ^{13,1}	0.25 - 0.5	10.8 - 21.7

Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) ¹³ Centipedes Cicadas Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†] Leafhoppers Leafrollers Mealybugs Millipedes Mites Orchid Weevil Pillbugs Plant Bugs (Including Lygus spp.) Psyllids [†] Scale crawlers, such as California scale, San Jose scale, etc. ¹³ Scorpions Sowbugs Spider Mites ¹⁴ Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers ¹³ Wasps Weevils ¹³ Whiteflies		
Ants Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites ¹⁴	0.5 - 1.0	21.7 - 43.5
Mosquitoes	See Mosquito Control directions for residual control rates and information on page #	

¹²Bagworms: Apply when larvae begin to hatch and spray larvae directly. Applications when larvae are young will be most effective.

[†]Beetles†, Scale Crawlers, Twig Borers, and Weevils: Treat trunks, stems and twigs in addition to plant foliage.

¹⁴Spider Mites: F5997 ME provides optimal twospotted spider mite control when applied during spring to mid-summer. Higher application rates and/or more frequent treatments may be required for acceptable twospotted spider mite control during mid- to late-summer. The addition of a surfactant or horticultural oil may increase the effectiveness of F5997 ME. Combinations of F5997 ME with other registered miticides have also proven effective. Alternately, F5997 ME applications may be rotated with those of other products that have different modes of action in control programs that are designed to manage resistance by twospotted spider mites. Consult your local Cooperative Extension Service for resistance management recommendations in your region.

**For foraging ants.

†Not for use in California.

For California

Greenhouse Applicators must wear:

- Full body chemical-resistant protective suit (such as barrier laminate, butyl rubber, nitrile rubber, polyvinyl chloride, or equivalent).

Reapplication Interval: Reapplications to greenhouses must be at intervals of 30 days or longer.

Greenhouse Harvesters must wear:

- Regular length gloves plus a long sleeved shirt or elbow-length (gauntlet type) gloves during the 30 days following application.

Attention

Do not apply a broadcast application to interior surfaces of homes.

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

Firewood is not to be burned for one month after treatment.

Use only in well ventilated areas.

Do not use on edible crops.

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During any application to overhead areas of structure, cover surfaces below with plastic sheeting or similar material, except for soil surfaces in crawlspaces.

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

Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

Do not treat areas where food is exposed.

During indoor surface applications do not allow dripping or run-off to occur.

Do not allow people or pets on treated surfaces until spray has dried

Let surfaces dry before allowing people and pets to contact surfaces

Prior to applying F5997 ME to wood siding, especially rough wood siding, be sure to thoroughly agitate the tank mixture. Prior to treating wood siding, test a small area and allow it to dry to be sure no deposits will form. Follow the same procedure when applying to wood surfaces in direct sunlight or the heat of the day.

Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.

Do not apply in classrooms when in use.

Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.

Do not apply this pesticide in livestock buildings (barns).

Application equipment that delivers low volume treatments, such as the Micro-Injector® or Actisol® applicators, may also be used to make crack and crevice, deep harborage, spot and general surface treatments of F5997 ME.

Conditions of Sale and Limitation of Warranty and Liability:

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

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

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. **FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT.** Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and buyer assumes the risk of any such use.

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