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Systems Integration Group, Inc.



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## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

April 13, 1999

Mr. Richard A. Miller  
Prentiss Incorporated  
C.B. 2000  
Floral Park, NY 11002-2000

Subject: Amendment to comply with EPA letter dated December 14, 1998, PR  
Notice 98-9 and 97-4  
Prentox® Perm-X™ 1E  
EPA Reg. No. 655-783  
Your letter dated September 28, 1998

Dear Mr. Miller:

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 listed below. Two (2) 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) Please rewrite your "Hazards to Humans and Domestic Animals" statement to read the following:

**DANGER**

Corrosive. Causes Irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if inhaled. Avoid breathing spray mist. Discard clothing and other absorbent materials that have been drenched with this product's concentrate. Do not reuse them. Follow manufacturers instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE

separate from other laundry. Do not apply this product in patient rooms or in any room occupied by the elderly or infirm. Do not apply to classrooms when in use. Do not apply to institutions (including libraries, sports facilities, etc.) in the immediate area when occupants are present. Do not use in food areas of food handling establishments, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed or facility is in operation. Serving areas are areas where prepared foods are served, such as dining rooms but excluding areas where foods may be prepared or held. In the home, cover all food handling surfaces and cover or remove all food and cooking utensils, or wash thoroughly after treatment. Exposed food should be covered or removed. Remove or cover fish bowls before application.

**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 G on an EPA chemical resistance category selection chart).

Mixer/loaders, applicators and other handlers must wear:

- Long sleeve shirt, long pants, shoes, socks
- Chemical resistant gloves such as barrier laminate or Viton®
- A respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.
- Protective eyewear (goggles or faceshield)
- A chemical resistant apron when mixing/loading or cleaning equipment
- Chemical resistant headgear for overhead exposure

**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 the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

- 2) Please remove the statement "Do not use this product in or on electrical equipment due to the possibility of shock hazard" from your *Directions for Use* and place it under your Physical and Chemical Hazards category.
- 3) Please add the statement "Nonfood areas are areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling) to your "Directions for Use".
- 4) For indoor treatments, for each type of application, please add the statement "Spray until the surface is just damp, but not to the point of run-off. Avoid excess application".
- 5) Please specify the ventilation time for your indoor space spray treatment by using the following statement, as applicable:

"Upon reentry, open windows and ventilate for at least (insert appropriate time frame) before humans and pets are allowed to reoccupy the treated space".

- 6) Under the paragraph for "Control of Leafminers on Chrysanthemums Grown in Greenhouses and Slathouses" delete the last sentence "Perm-X 1E treated areas can be reentered after spray has dried" since this conflicts with the REI for this product.
- 7) Under Environmental Hazards delete the phrase "For Terrestrial Uses" from the beginning of the third sentence.

Your alternate CSF, submitted September 28, 1998 has been found acceptable. If you have any questions regarding this action, please contact Tracy Keigwin of my team at (703) 305-6605.

Sincerely,



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

Prentox Perm-X 1E  
EPA Registration No. 655-783

ACCEPTED  
with COMMENTS  
in EPA Letter Dated 5/13

APR 13 1999

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

Front Panel

# PRENTOX® PERM-X™ 1E

Only for Sale to, Use, and Storage by Licensed Pest Control Applicators.

Contains 1 lb./gal. (120g/L) of Pramer® Insecticide.

**ACTIVE INGREDIENT:**

\*† Permethrin (3-phenoxyphenyl)methyl(†) Cis, trans-3-(2,2-dichloro-ethenyl)2,2 dimethylcyclopropanecarboxylate ..... 13.30%

**OTHER INGREDIENTS:\*\*** ..... 86.70%

TOTAL 100.00%

\*\*Contains Xylene Range Aromatic Solvent

PRENTOX® — Registered Trademark of Prentiss Incorporated

PERM-X™ — Trademark of Prentiss Incorporated

VITON® — Registered Trademark of DuPont Dow Elastomers

\*Cis/trans Isomers ratio min. 35% (†) cis and max 65% (†) trans.

† U.S. Patent No. 4,024,163

PRECAUCIONAL CONSUMIDOR: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

**KEEP OUT OF REACH OF CHILDREN  
WARNING DANGER - PELIGRO**

SEE INSIDE OF LEAFLET BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS, AND FIRST AID STATEMENTS  
AND DIRECTIONS FOR USE

E.P.A. Reg. No. 655-783

4-98

E.P.A. Est. No. 655-GA-1

Manufactured by:

**PRENTISS INCORPORATED**

Plant: Kaolin Road, Sandersville, GA 31082

Office: C.B. 2000, Floral Park, NY 11002-2000

# PRENTOX® PERM-X™ 1E

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(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

**KEEP OUT OF REACH OF CHILDREN  
WARNING DANGER - PELIGRO**

**FIRST AID**

**IF SWALLOWED:** Call a physician or Poison Control Center immediately. DO NOT INDUCE VOMITING. This product contains aromatic petroleum solvent and vomiting may cause aspiration pneumonia. Do not give anything by mouth if person is unconscious or convulsing. Avoid alcohol.

**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get immediate medical attention.

**NOTE TO PHYSICIAN:** This product contains a pyrethroid and a petroleum solvent. The possibility of aspiration pneumonia must be considered. The product is caustic and probable mucosal damage may contraindicate gastric lavage. Do not administer whole milk, cream or other substances containing vegetable or animal fats which enhance absorption of lipophilic substances.

For information about this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Telecommunications Network at 1-800-858-7378.

E.P.A. Reg. No. 655-783

E.P.A. Est. No. 655-GA-1

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC ANIMALS  
WARNING DANGER**

~~Causes eye irritation. Do not get in eyes. Avoid contact with skin or clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Wash thoroughly after handling. Corrosive. Causes Irreversible eye damage. Do not get in eyes or on clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if inhaled. Avoid breathing spray mist. Do not use in food areas of food handling establishments, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed or facility is in operation. Serving areas are areas where prepared foods are served, such as dining rooms, but excluding areas where foods may be prepared or held. In the home, cover all food handling surfaces and cover or remove all food and cooking utensils, or wash thoroughly after treatment. Exposed food should be covered or removed.~~

Nonfood areas are areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling).

Do not apply this product in patient rooms or in any room occupied by the elderly or infirm. Do not apply to classrooms when in use. Do not apply to institutions (including libraries, sports facilities, etc.) in the immediate area when occupants are present. Remove or cover fish bowls before application. For space spraying indoors wear a NIOSH or MSHA approved respiratory protection device a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter. Wear goggles, face shield or safety glasses when handling the undiluted material.

**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 G on an EPA chemical resistance category selection chart.

**Applicators and other handlers must wear:** Chemical-resistant gloves, such as barrier laminate or Viton®, and a respirator with an organic-vapor removing cartridge (MSHA/NIOSH approval number prefix TC-23C), protective eyewear (goggles, face shield, or safety glasses).

**Discard clothing and other absorbent materials that have been drenched with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and 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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**FIRST AID**

~~**If swallowed:** Call a physician or Poison Control Center. Do not induce vomiting. This product contains aromatic petroleum solvent. Aspiration may be a hazard.~~

~~**If in eyes:** Flush with plenty of water. Get medical attention.~~

~~**If on skin:** Wash with soap and plenty of water. Get medical attention if irritation persists.~~

~~**If inhaled:** Remove person to fresh air. If not breathing, apply artificial respiration, preferably mouth to mouth. Get immediate medical attention.~~

**ENVIRONMENTAL HAZARDS**

This product is extremely toxic to fish. Do not contaminate water by disposing of equipment wash water. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Apply this product only as specified on this label.

**PHYSICAL AND CHEMICAL HAZARDS**

Do not use or store near an open flame. Flashpoint minimum of 105° F (41° C).

**DIRECTIONS FOR USE**

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

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

**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). 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 24 hours.

PPE required for early entry into 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: chemical-resistant gloves, such as barrier laminate or Viton®, a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), and protective eyewear (goggles, face shield, or safety glasses).

FOR USE IN NON-FOOD AREAS INDOORS AND OUTSIDE PREMISES OF HOTELS, MOTELS, HOMES, PRESCHOOLS, NURSERIES, DAY CAMPS, GREENHOUSES, LATHHOUSES, SEED HOUSES, FOOD HANDLING ESTABLISHMENTS, PACKAGING AND PROCESSING PLANTS, COMMERCIAL, INDUSTRIAL, OFFICE, INSTITUTIONAL AND STORAGE BUILDINGS, DAIRIES, MILK STORAGE ROOMS, EGG PROCESSING PLANTS, SUPERMARKETS, RESTAURANTS, BOTTLING PLANTS, CANNERIES, FLOUR AND FEED MILLS, BAKERIES, AND HOSPITALS. IN HOSPITALS, PATIENTS SHOULD BE REMOVED PRIOR TO TREATMENT. ALSO FOR USE IN CAMPERS, MOBILE HOMES, BUSES, AUTOMOBILES, TRUCKS, BOXCARS. ALSO FOR USE IN DOG KENNELS AND HORSE STABLES. IN HORSE STABLES, NOT FOR APPLICATION IF HORSES WILL BE USED FOR FOOD. DO NOT USE THIS PRODUCT IN OR ON ELECTRICAL EQUIPMENT DUE TO THE POSSIBILITY OF SHOCK HAZARD.

**NOTE TO PEST CONTROL OPERATORS:**

One gallon of finished spray is sufficient to treat 1580 linear feet with a 6 inch spray band.

For contact and residual sprays, mix Perm-X 1E with water in the following manner:

FINISHED SPRAY	PERM-X 1E (fluid ounces)	WATER
0.25%	2 <sup>2</sup> / <sub>3</sub>	1 gallon
0.25%	2 <sup>1</sup> / <sub>3</sub>	1 quart
0.50%	5 <sup>1</sup> / <sub>2</sub>	1 gallon
0.50%	1 <sup>1</sup> / <sub>3</sub>	1 quart

For heavy infestation, use the 0.50% dilution. For lighter infestations and for maintenance purposes, use the 0.25% solution.

**PESTS INDOORS**

For residual and contact control of cockroaches (waterbugs), crickets, silverfish (firebrats), clover mites, millipedes, centipedes, earwigs, sowbugs (pillbugs), spiders, brown dog ticks, lone star ticks, ants, fire ants, clothes moths, carpet beetles, fleas, boxelder bugs, scorpions, spider beetles, bed bugs, grasshoppers, house flies, mosquitoes, gnats, fruit flies, cluster flies, flying moths, confused flour beetles, saw-toothed grain beetles, shiny spider beetles, grain mites, red flour beetles, Angoumois grain moths, grain weevils, Indian meal moths, Mediterranean flour moths, lesser grain borers, cigarette beetles, drug store beetles, chocolate moths. Spray thoroughly into hiding places such as cracks, crevices, moist areas, openings around pipes and sinks, under refrigerators, baseboards and storage areas. Spray directly on insects where possible.

**For Bedbugs:** Apply as a spot treatment to cracks and crevices, around baseboards, floorboards, bedboards and walls. First, thoroughly clean and air mattresses and springs. Then spot treat only areas that may harbor bedbugs, concentrating on tufts, folds and seams. Repeat ~~as necessary~~ treatment in 7 - 14 days if infestation continues. Allow all treated articles to thoroughly dry before use.

**Grain Insects:** To control confused flour beetles, saw-toothed grain beetles, spider beetles, shiny spider beetles, grain mites, red flour beetles, Angoumois grain moths, grain weevils, Indian meal moths, Mediterranean flour moths, lesser grain borers, cigarette beetles, drug store beetles, chocolate moths, carpet beetles — remove infested grain, cereal or flour and destroy. Avoid contamination of other food and food stuffs in the areas by removing before spraying. Spray directly on exposed stages and into cracks and crevices where grain insects may be hiding. In homes, dispose of all infested products. The shelves and drawers should be cleaned and thoroughly sprayed so as to contact all pests, and covered with shelf paper after allowing shelves to dry. Any utensils that are contacted with spray should be washed before using. Repeat ~~as necessary~~ treatment in 7 - 14 days if infestation continues.

**Spiders:** Spray directly on these pests and use repeated applications to the webbing and all cracks and crevices which harbor spiders.

**Ants:** To kill ants, spray trails, nests and points of entry within buildings and homes. Spray directly on ants where possible. Repeat ~~as necessary~~ treatment in 7 - 14 days if infestation continues.

**Wasps, Hornets, Yellow Jackets, Bees:** Application should be made in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Repeat ~~as necessary~~ treatment in 7 - 14 days if infestation continues.

**Fleas, Brown Dog and Lone Star Ticks on Premises:** To prevent reinfestation, thoroughly spray the animals bedding and other resting areas until the surface is slightly moist, contacting as many insects as possible. Treat the floor areas, cracks and crevices in the floor and along baseboards at the rate of 2 seconds per linear foot at a distance of 12 to 18 inches. Also spray the entire inside surface of dog homes.

**PETS**

**PRE-TREATMENT DIRECTIONS**

**READ ENTIRE LABEL BEFORE EACH USE**

**USE ONLY ON DOGS TO KILL FLEAS, BROWN DOG AND LONE STAR TICKS: Do not use on dogs under 12 weeks.**

**SPECIAL ANIMALS**

Consult a veterinarian or call the National Pesticide Telecommunications Network at 1-800-858-7378, before using this product on debilitated, aged, pregnant, nursing or medicated animals.

**ADVERSE REACTION INFORMATION**

Sensitivities may occur after using ANY pesticide product for pets. If signs of sensitivity occur, bathe your dog with mild soap and rinse with large amounts of water. If signs continue, consult a veterinarian immediately, or call the National Pesticide Telecommunications Network at 1-800-858-7378.

**APPLICATION DIRECTIONS**

**Fleas, Brown Dog and Lone Star Ticks on Dogs:** Spray animals along back, under forelegs and on other areas, except scrotum, face and anus. Part hair to contact skin and insure good coverage. Hold sprayer about one foot (30 cm) away while spraying. Apply until hair is thoroughly moist. Do not spray directly in eyes, mouth, or nose of animal.

**REAPPLICATION DIRECTIONS**

Do not reapply product for 7 days.

**House Flies, Mosquitoes, Cluster Flies, Gnats, Fruit Flies, Flying Moths:** Close off all doors and windows. Point sprayer upward. Direct spray mist to all parts of the room, especially windows and other light sources which may attract these insects. Fill the room with mist, then leave the treated area. Keep the room closed for at least 15 minutes. Ventilate the room when treatment is completed.

**Carpet Beetles and Clothes Moths:** To treat carpets — hold container 14-18 inches from carpet. Apply spray evenly, covering the entire surface until slightly moist. Spray underside of carpet when possible. Avoid wetting or soaking. **To Treat Garments, Blankets, Carpets and Other Fabrics Before Storage:** Dry clean or wash before treatment and after storage. Apply spray evenly, covering the material on both sides until slightly moist. For best results, place treated materials in plastic bags after drying, and store in a dark place. Also spray floor and baseboards, closets, cracks, crevices, infested areas of shelving and/or wherever these insects are seen or suspected.

#### PESTS OUTDOORS

**Pests on Outside Surfaces of Buildings:** Use this product to control ants, clover mites, crickets, earwigs, millipedes and sowbugs (pillbugs) on the outside surfaces of buildings. To help prevent infestation of buildings, treat the building foundation to a height of 2 to 3 feet, where pests are and may find entrance. Also, apply as a residual spray to outside surfaces of buildings, including porches, screens, window frames, eaves, patios, garages, refuse dumps, and other areas where these pests congregate or have been seen. Repeat treatment as needed to maintain effectiveness in 7 - 14 days if infestation continues.

**House Flies, Mosquitoes, Cluster Flies, Gnats, Flying Moths Outdoors:** For outdoor use only as an aid in reducing annoyance from these insects. Spray outside surfaces of screens, doors, window frames or wherever these insects may enter the room. Also treat surfaces around light fixtures on porches, in garages, and other places where these insects alight or congregate. Repeat as necessary treatment in 7 - 14 days if infestation continues.

**Ants, Lone Star Ticks, Fleas, and Earwigs Outdoors:** For treatment of localized infestations of these insects in outdoor areas where there are weeds or bushy non-crop areas, spray infested areas thoroughly. For ants, thoroughly wet hills and runways. Repeat application as infestations warrant and as reinfestations occur treatment in 7 - 14 days if infestation continues.

**TO CONTROL FIRE ANTS:** Dilute 2 tablespoons of this product in 1 gallon of water. Apply 1 gallon of solution as a gentle rain to each fire ant mound using a sprinkler can. Thoroughly wet the mound and surrounding area to a 4 foot diameter. For best results, apply in cool weather, 65-80° F (18.5-27° C), or in early morning or late evening hours. Treat new mounds as they appear. Do not disturb the mound prior to treatment. If possible, treat all mounds in the vicinity, and treat all colonies which may not as yet have constructed a mound. Larger quantities of solution can be prepared for multiple mound treatments. Equipment to deliver the diluted product as a gentle rain at the rate of 1 gallon (3.79 L) per mound is still required. Do not use equipment that produces a pressurized spray, as pressurized sprays may disturb fire ants and cause migration reducing product effectiveness.

#### FOR USE ON ORNAMENTAL PLANTS, MIX PERM-X 1E WITH WATER IN THE FOLLOWING MANNER

FINISHED SPRAY	PERM-X 1E	WATER
0.015%	1 teaspoon	1 gallon

\*Note: Do not use more Perm-X 1E than recommended, as this may cause some plant injury. Use this dilution unless other instructions are given.

**CONTACT AND RESIDUAL SPRAY** — Apply a finished spray of Perm-X 1E. USE SUFFICIENT SPRAY TO OBTAIN FULL COVERAGE OF ALL FOLIAGE. ADJUST SPRAY VOLUME USED TO PLANT SIZE.

**INDOORS:** To protect plants in greenhouses and lathouses, and for indoor landscaping — Spray directly on insects to kill leafrollers, armyworms, cutworms, cabbage worms on chrysanthemums; fungus gnats on velvet plants. Spray as directed above. Also see specific chrysanthemum directions below. Spray as directed above to control aphids, armyworms, corn earworms, fall cankerworms, inchworms, Japanese beetles, leafminers, leafrollers, mealybugs, scales, spider mites, spring cankerworms, exposed thrips, and whiteflies on the following plants:

Ageratum, Ardista, Aster, Azalea, Baby's Breath, Begonia, Bird's-nest Fern, Bleeding Heart, Carnation, Chrysanthemum, Coleus, Crown of Thorns, Cockscomb, Cyclamen, Dracaena, Dumbcane, English Ivy, Fuchsia, Gladiolus, Grape Ivy, Hypoestes, Ivy, Juniper, Lily, Marigold, Orchid, Palm, Pansy, Piperomia, Petunia, Philodendron, Piggy-back plant, Poinsettia, Portulaca, Pothos, Prayer Plant, Purple Passion, Rabbits foot fern, Rose, Schefflera, Snapdragon, Snake Plant, Stalice, Velvet Plant, Verbena, Zinnia.

If application is to be made indoors, remove infested plants from living areas prior to application. Spray plants in an area not likely to be occupied by children or pets (particularly fish). When leaves dry, plants can be returned to original location.

Use with care on ferns, palms and fuchsia. As with all plants listed above, especially carnations, chrysanthemums, and roses, there exists a wide variety of species and cultivars, and therefore, a wide variety of susceptibility to injury. To ascertain possible phytotoxicity, spray a few plants as described above, wait 24 hours, and check for possible injury.

Repeat applications may be necessary to control adult Japanese beetles on roses.

#### FOR THE CONTROL OF LEAFMINERS ON CHRYSANTHEMUMS GROWN IN GREENHOUSES AND SLATHOUSES

To control the insect listed above, apply Perm-X 1E foliar spray only in accordance with the chart below. DO NOT USE AS SOIL DRENCH. USE SUFFICIENT WATER TO OBTAIN FULL COVERAGE OF ALL FOLIAGE. ADJUST SPRAY VOLUME TO PLANT SIZE. USE SPRAY INTERVALS OF 4 TO 8 DAYS. Timing and frequency of applications should be based upon insect populations reaching economic thresholds. Use the longer interval between sprays and lower application rate when population control has already been obtained and pressure is already declining due to initial Perm-X 1E application, and/or whenever preventive leafminer control is desired. High rate of application may be required under conditions of very heavy infestations and/or where local difficulty in control of leafminers has been reported. Perm-X 1E application can be made to the day of harvest. Perm-X 1E treated areas can be reentered after spray has dried.

**MIXING INSTRUCTIONS**

Prepare final spray solution by adding the required amount of Perm-X 1E to the mixing tank which has been prefilled with water to the 1/2 Full Mark. Thereupon under agitation carefully mix while adding water until the spray tank is filled to its Full Mark or to the desired spray volume. Use the Perm-X 1E final spray during the day of preparation.

**CHRYSANTHEMUM SPRAY RECOMMENDATIONS**

Crop	Target Pest	Lbs. a./100 gals. of spray	No. of pints of Perm-X 1E per 100 gallons of spray
Chrysanthemum	Vegetable Leafminers	Normal 0.125	1 pint
		High 0.4	3.2 pints

**OUTDOORS:** Use one teaspoon of Perm-X 1E in one gallon of water.

**CONTACT AND RESIDUAL SPRAY:** Apply a finished spray of Perm-X 1E. USE SUFFICIENT SPRAY TO OBTAIN FULL COVERAGE OF ALL FOLIAGE. ADJUST SPRAY VOLUME USED TO PLANT SIZE.

Spray in the late afternoon or evening, when the temperature ranges from 50° F to 75° F and when there is little or no wind. Spray at the first indication of insect pests. On those plants that will flower during the season, the spray schedule should be completed before blossom formation. Repeat as necessary; use intervals of 4 to 8 days treatment in 7 - 14 days if infestation continues. Application can be made up to the day of collection.

Spray as directed above to control aphids, cicadas, corn earworms, fall cankerworms, inchworms, leafminers, leafrollers, mealybugs, bagworms, spider mites, exposed thrips and whiteflies on the following plants:

Ageratum, Arizona Cypress, Aster, Azalea, Begonia, Coleus, Common nineback, Common Snowberry, Elm, Exacum, Euonymous, English Ivy, Gladiolus, Gold Bells, Hypoestes, Ivy, Lilac, Marigold, Mock Orange, Nannyberry, Orchid, Palm, Pansy, Pea Shrub, Petunia, Philodendron, Poinsettia, Rhododendron, Rose, Snapdragon, Saxus, Wax plants, Weeping fig, Zinnia.

**FOR ORNAMENTAL TREES GROWN AROUND THE HOME**

Use one teaspoon of Perm-X 1E in one gallon of water.

Use sufficient spray to obtain full coverage of all foliage. Avoid heavy wetting. Use to control: Pine moths, pine needle miners, pine beetles and needle scales on pine; Budworms on conifers; Oakworms on oak; Fall webworms on cherry, elm and honeysuckle; Aphids on tulip poplar; Citrus black flies on non-bearing citrus; Tussock moths on Douglas and grand fir; Leafminers on birch; Elm leaf beetle and elm spanworms on elms.

**TO KILL TENT CATERPILLARS:** Application should be made when caterpillars are young and tents are first noticed. For best results, apply in the late afternoon or evening, when caterpillars have returned to their tents. Mix 2 fl. ozs. of this product in one gal. of water. Wet tents with spray on all sides. A few caterpillars may be seen escaping from the tent; however, they should die within several hours.

**CLUSTER FLIES**

Apply this product undiluted to the outside surfaces of buildings at the rate of 2.5 fl. oz./1000 sq. ft. Use apparatus which delivers a strong mist spray of small particle size. Hold nozzle about three feet from surface to be treated. Apply when wind velocity is less than 2 mph to avoid drift.

**FOR USE ON HOME LAWNS**

For control of ants (including fire ants), armyworms, chinch bugs, crickets, cutworms, Japanese beetle grubs, grasshoppers, mole crickets and sod webworms, consult the following chart:

PESTS	DILUTION
armyworms cutworms chinch bugs Japanese beetle grubs mole crickets sod webworms	5 tsp./10 gal. water/1000 ft <sup>2</sup>
crickets grasshoppers ants (including fire ants)	2 tsp./3 gal. water/1000 ft <sup>2</sup>

Lawns should be no taller than 3 inches at time of application. Slightly more water may be used as long as the amount of product per area is as listed above. For heavy infestations, repeat application after two weeks.

Also for control of cutworms on dichondra and Irish moss. Use as directed above for lawns. Keep children and pets off treated areas until lawn has dried following the application.

**DIRECTIONS FOR USE OF PERM-X 1E ON VEGETABLES:**  
**For Backyard Vegetable Gardens Only**

Prepare spray mix as directed in the following chart:

Use 0.25 gallons of finished spray per 110 square feet of surface area.

Vegetable	Target Pest(s)	Remarks	Recommended Perm-X 1E Dilution-Use Rate Finished —Spray tsp./gal. water
Asparagus (pre-harvest)	Cutworm, Asparagus Beetle	Apply for uniform coverage as needed. Do not apply more than 4 applications per crop. Can be applied up to 3 days prior to harvest.	4/5
Asparagus (post-harvest)	Larval stages of Asparagus Beetle, Tarnished Plant Bug, Lygus Bugs, and Adult Japanese Beetle	Treat ferns or bush growth after spear harvest when insects are present.	4/5
Celery	Vegetable Leaf Miner, Cabbage Looper, Black and Granulate Cutworm, Fall, Beet and Southern Armyworm	Apply every 3-5 days or as needed. Can be applied up to 3 days prior to harvest. Do not make more than 10 applications per season.	1/5
Cole Crops: Broccoli; Brussels Sprouts; Cabbage; Cauliflower	Beet Armyworm, Diamond Back Moth, Imported Cabbageworm, Cabbage-aphid, Cabbage-Looper	Apply every 5 days or as needed. Can be applied up to one day prior to harvest. Do not make more than 8 applications on Cauliflower, Brussels Sprouts, and Broccoli and 10 applications on Cabbage.	4/5
Eggplant	Colorado Potato Beetle, Vegetable Leafminer	Apply for uniform coverage as needed. Do not exceed 16 applications. Can be applied up to 3 days prior to harvest.	1/5
(Foliar application)	Imported Crucifer Weevil	Apply as needed. Do not exceed 3 foliar applications. Can be applied up to 22 days prior to harvest.	1/5
Head Lettuce only. Do not use on leaf lettuce.	Cabbage Looper, Alfalfa Looper, Beet Armyworm, Corn Ear Worm and Tobacco Budworm	Apply every 5-10 days as needed. Do not make more than 10 applications per season. Can be applied up to 1 day prior to harvest.	1/5
Horseradish (Spring Pre-plant Dip)	Imported Crucifer Weevil	Soak sets for 30 minutes in 0.1% solution and air dry before planting.	6/5
Potatoes	Beet Armyworm, Colorado Potato Beetle, Colorado Potato Leafhopper, Potato Flea Beetle, Aster Leafhopper, Potato Aphid, Potato Tuberworm, Cabbage-Looper, Cutworms, European Corn Borer, Potato Psyllid, Tarnished Plant Bug	Apply as needed. Do not apply more than 12 applications. Can be applied up to 7 days prior to harvest.	1/5
Peppers	Vegetable Leafminer, Cabbage-Looper, Flea beetle, Corn Earworm, Pepper Weevil, European Corn Borer	Apply as needed, but not more than 8 sprays per season. Can be applied up to 3 days prior to harvest.	1/5
Spinach	Beet Armyworm, Corn Earworm, Cabbage-Looper, Cutworms, European Corn Borer, Green Cloverworm, and Leafhoppers	Apply for uniform coverage when needed but no more than 7 applications per season. Can be applied up to 7 days prior to harvest.	4/5
Sweet Corn	Corn Earworm, European Corn Borer, Fall Armyworm, Southern Armyworm	Apply every 5 days and when needed but not more than 6 applications per season. Can be applied up to 1 day prior to harvest.	1/5

Vegetable	Target Pest(s)	Remarks	Recommended Perm-X 1E Dilution Use Rate Finished Spray tsp/gal. water
Tomatoes (Florida Only) Only for application to tomatoes grown in Florida for final marketing as fresh tomatoes. Do not apply on cherry tomatoes and varieties yielding less than one inch in diameter	Beet and Southern Armyworm; Tomato Pinworm; Tomato Fruitworm; Horn Worm; Granulate Cutworms; Colorado Potato Beetle; Cabbage Looper	Apply for uniform coverage when needed but not more than 6 applications per season. Can be applied up to date of harvest.	1-5

**DIRECTIONS FOR HOME OWNER—BACKYARD  
USE OF PERM-X 1E FOR TREE FRUIT AND NUT CROPS GROWN AROUND THE HOME**

Apply finished spray to trees until foliage is dripping wet. Application rate is based on dwarf and semi-dwarf sized fruit trees requiring 130 gallons/acre to runoff.

Trees (Fruit or Nut)	Target Pest(s)	Remarks	Recommended Perm-X 1E Dilution Use Rate Finished Spray tsp/gal. water
Almonds	Navel Orange Worm Peach Twig Borer	Apply when insects appear. Do not make more than 2 applications during hull split and 5 applications per season. Can be applied up to 7 days prior to harvest.	2-2
Apples	Plum Curculio, Redbanded Leafroller, Rosyapple aphid, Spotted Tentiform Leafminer, Tarnished Plant Bug, White Apple Leafhopper, Oblique-banded Leafroller, Green Fruitworm	Apply when insects appear. Repeat as required to maintain control. Do not make more than 3 applications per season. Do not apply after petal fall.	2-2
Peaches	Lesser Peachtree Borer, Peach Twig Borer, Plum Curculio, Tarnished Plant Bug, Green Fruit Worm, Oriental Fruit Moth	Apply when insects appear. Do not apply within 7 days of harvest. Do not make more than 8 applications per season.	2-2
Pears (dormant through delayed dormant)	Pear Psylla	Apply during the dormant through delayed dormant growth period only. Add if desired 8 oz. of spray oil to each gallon of PERM-X 1E End Use Spray. Do not make more than 2 applications per season.	2-2
(Summer)	Pear Psylla, Green Fruitworm, and Codling moth	Apply when needed. Do not apply more than 3 applications per season. Can be applied up to 14 days prior to harvest.	2-2

**STORAGE & DISPOSAL**

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

**STORAGE:** Store this product in original container in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** For containers One Gallon and Under: Do not reuse empty container. Wrap container and put in trash. For Containers Over One Gallon: 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.

Adhesive Panel

# PRENTOX® PERM-X™ 1E

Only for Sale to, Use, and Storage by Licensed Pest Control Applicators.

Contains 1 lb./gal. (120g/L) of Pramex® Insecticide.

**ACTIVE INGREDIENT:**

\*† Permethrin (3-phenoxyphenyl)methyl(†) Cis, trans-3-(2,2-dichloro-ethenyl)2,2 dimethylcyclopropanecarboxylate ..... 13.30%

**OTHER INGREDIENTS:\*\*** ..... 86.70%

TOTAL 100.00%

\*\*Contains Xylene Range Aromatic Solvent

PRENTOX® — Registered Trademark of Prentiss Incorporated

PERM-X™ — Trademark of Prentiss Incorporated

VITON® — Registered Trademark of DuPont Dow Elastomers

\*Cis/trans Isomers ratio min. 35% (†) cis and max 65% (†) trans.

† U.S. Patent No. 4,024,163

**PRECAUCIONAL CONSUMIDOR:** Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.  
**(TO THE USER:** If you cannot read English, do not use this product until the label has been fully explained to you.)

**KEEP OUT OF REACH OF CHILDREN ~~WARNING! DANGER - PELIGRO~~**

~~PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS - WARNING DANGER - PELIGRO~~ Causes eye irritation. Do not get in eyes. Avoid contact with skin or clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Wash thoroughly after handling. Do not use in food areas of food handling establishments, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed or facility is in operation. Serving areas are areas where prepared foods are served, such as dining rooms, but excluding areas where foods may be prepared or held. In the home, cover all food handling surfaces and cover or remove all food and cooking utensils, or wash thoroughly after treatment. Exposed food should be covered or removed. Nonfood areas are areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after canning or bottling). **FIRST AID - If swallowed:** Call a physician or Poison Control Center. Do not induce vomiting. This product contains aromatic petroleum solvent. Aspiration may be a hazard. **If in eyes:** Flush with plenty of water. Get medical attention. **If on skin:** Wash with soap and plenty of water. Get medical attention if irritation persists. **If inhaled:** Remove person to fresh air. If not breathing, apply artificial respiration, preferably mouth-to-mouth. Get immediate medical attention.

**FIRST AID**

**IF SWALLOWED:** Call a physician or Poison Control Center immediately. DO NOT INDUCE VOMITING. This product contains aromatic petroleum solvent and vomiting may cause aspiration pneumonia. Do not give anything by mouth if person is unconscious or convulsing. Avoid alcohol.

**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get immediate medical attention.

**NOTE TO PHYSICIAN:** This product contains a pyrethroid and a petroleum solvent. The possibility of aspiration pneumonia must be considered. The product is caustic and probable mucosal damage may contraindicate gastric lavage. Do not administer whole milk, cream or other substances containing vegetable or animal fats which enhance absorption of lipophilic substances. For information about this pesticide product (including health concerns, medical emergencies, or pesticide incidents) call the National Pesticide Telecommunications Network at 1-800-858-7378.

**ENVIRONMENTAL HAZARDS:** This product is extremely toxic to fish. Do not contaminate water by disposing of equipment wash water. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Apply this product only as specified on this label.

**PHYSICAL AND CHEMICAL HAZARDS** Do not use or store near an open flame. Flashpoint minimum of 105° F (41° C).

SEE INSIDE OF ATTACHED BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE ON LEAFLET PORTION OF LABEL

EPA Reg. No. 655-783

5/98

EPA Est. No. 655-GA-1

Manufactured by:

**PRENTISS INCORPORATED**

Plant: Kaolin Road, Sandersville, GA 31082  
Office: C.B. 2000, Floral Park, NY 11002-2000

5/98

Prentox Perm-X 1E  
EPA Reg. No. 655-783

**USE DELETIONS**

**Vegetables**

- Asparagus (pre-harvest)
- Asparagus (post-harvest)
- Celery
- Cole Crops
- Broccoli
- Brussels Sprouts
- Cabbage
- Cauliflower
- Eggplant
- Foliar application
- Head Lettuce
- Horseradish (Spring Pre-plant Dip)
- Potatoes
- Peppers
- Spinach
- Sweet Corn
- Tomatoes (Florida only)

**Trees**

- Almonds
- Apples
- Peaches
- Pears (dormant through delayed dormant)
- Pears (summer)