

PM 13

64321-1

1/13

E Ø

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

21 OCT 1996

Mr. Thomas J. Kling
Bio-Environmental Products Corp.
814 24th St., N.E.
Canton, Ohio 44717-1904

Dear Mr. Kling:

Subject: Deletion of Precautionary Statements Based On Acute Dermal Toxicity Category
BEP Insecticide
EPA Reg. No. 64321-1
Your Submission Dated July 10, 1996

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable with label changes. A stamped copy is enclosed for your records.

1. Your acute dermal toxicity study was accepted by PRS, thus, changing the toxicity category from III to IV. Precautionary statements based on acute dermal exposure (i.e. "Harmful if absorbed through skin.") are no longer required for this product.
2. Revise the statement to read "Not for Use In Federally Inspected Meat and Poultry Plants".
3. Due to the toxicity of permethrin to bees and since the product has outdoors uses, add the following statement under Environmental Hazards:

"This pesticide is toxic to honey bees and other beneficial pollinators exposed to an application. Do not apply when bees are actively visiting blooming plants (vegetables, flowers, fruit/ornamental trees). Do not allow this product to come in direct contact with beehives at anytime."

CONCURRENCES							
SYMBOL							
SURNAME	Blackwell						
DATE	10/21/96						

2/13

4. Revise the use directions under industrial warehouse fogging to read as follows:

"Close all doors and windows and fog at the rate of 1 ounce per thousand cubic feet moving toward the exit. Fill room with fog. Direct to all parts of the room especially windows and other light sources which attract these insects. Leave area and keep closed for a period of 2 hours before reentry. Open and ventilate before reoccupying. Fogged area must be cleared of all personnel and pets while fogging is taking place. This product is to be used solely for warehouse space, used to store non-food/feed materials."

A stamped copy of the accepted label is enclosed for your records.

Sincerely Yours,

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

3/13

BIO KILL Brand Insecticide
Master Label
EPA REG. NO. 64321-1
Approved: October 24th, 1991
Revision: 14 February 1996
Page 1 of 11

BIO KILL Brand Insecticide

- * For Commercial Use
- * Makes up to 16 Gallons
- * For Residential Use
- * WATER-BASED Permethrin Insecticide
- * ODORLESS in application.
- * For Use INDOORS: on Houseplants and in Indoor Landscaping.
- * A READY TO USE and DILUTABLE Permethrin-based Emulsion Insecticide.
- * For use OUTDOORS (Residential Site ONLY): in Gardens, on Ornamental Trees, Shrubs and Flowers, on Lawns.
- * For use Outdoors, In Homes and Non-Food Areas of Food/Feed Processing Establishments, Hotels, Motels, Commercial Buildings, Schools, Warehouses, Theaters, Office Buildings and Kennels.
- * Will not Stain Water-Safe Fabrics and Surfaces
- * For Use Indoors and Outdoors on a Wide Variety of Crawling and Flying Insects
- * Use on DOGS and CATS to Control Fleas & Ticks
- * Use on Poultry to Control Lice and Mites.
- * Can be used as Dip for Fleas on DOGS.
- * Provides Effective Broad Spectrum Control of Building and Garden Insect Pests.
- * Effective for up to Four Weeks

ACTIVE INGREDIENT:

* Permethrin	0.25%
INERT INGREDIENTS	99.75%
	100.00%

* (3-phenoxyphenyl) methyl (+/-) cis/trans 3-(2,2-dichloroethenyl) 2,2-dimethyl-cyclopropanecarboxylate.
Cis/trans ratio: max. 28% (+/-) cis and min. 72% (+/-) trans.

Keep Out of Reach of Children

CAUTION

See rear panel for additional precautionary statements.

NET CONTENTS:

ACCEPTED
with COMMENTS
in EPA Letter Dated

Bio-Environmental Products
814 24th St. N.E.
Canton, Ohio 44714

21 OCT 1996

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

64321-1

DIRECTIONS FOR USE

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

INDOOR APPLICATION

Do not use in food/feed areas of food /feed handling establishments, restaurants or other areas where food/feed 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 prepared foods are served such as dining rooms but excluding areas where food may be prepared or held. The product may be used in non-food/feed areas of food/feed establishments such as garbage rooms, lavatories, floor drains (to sewer entries and vestibules), offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage areas (after canning or bottling).

In the home, cover all food handling surfaces, cover or remove all food and cooking utensils or wash thoroughly after treatment.

Not for Use in USDA Meat and Poultry Plants.

Do not apply to classrooms while in use.

SURFACE SPRAYING

Provides control of crawling and flying household insect pests for up to 4 weeks.

To control Cockroaches, Waterbugs, Palmetto Bugs, Scorpions, Millipedes, Centipedes, Sowbugs, Pillbugs, Ants, Silverfish, Firebrats, Spiders, Crickets, Cigarette Beetles, Clover Mites, Cheese Mites, Granary Weevils, Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Drugstore Beetles, Meal Worms, Grain Mites and Cadellles: Direct the spray into hiding places, cracks and crevices, and behind shelves and drawers. For Silverfish, spray bookcases; for Ants, spray trails, nests and points of entry.

To control Carpet Beetles: Spray edges of carpeting and under carpeting and rugs. Make localized application to floor and under baseboards. Spray directly into cracks, crevices and infested areas of shelving. Repeat treatment as

5/13

needed.

BIO KILL Brand Insecticide

Page 3 of 11

To control Bedbugs: Also spray mattresses lightly, particularly around tufts and seams. Take beds apart and spray in all joints. Allow all sprayed articles to dry thoroughly before use.

To control Fleas (adult and larvae) and ticks (adult and nymphs): Remove and thoroughly clean or destroy pet bedding. Spray pet sleeping quarters, beds, entire floor and floor covering with special attention to cracks and crevices around baseboards, and window and door frames. Infested upholstered furniture may also be treated with this product. Make a test application to upholstery or drapery fabrics in an inconspicuous place before use. Allow to dry thoroughly before allowing pets to contact treatment areas.

To control Clothes Moths: Remove and brush thoroughly any infested articles from storage and air for several hours in sunlight, if possible. Apply spray liberally to empty chests, closets, bureaus and other storage areas directing the spray into cracks, joints and crevices. After airing, infested articles may be treated lightly by keeping nozzle at least 3 feet from fabric to avoid possible staining. Allow all sprayed articles to dry thoroughly before use.

To kill Lice and Louse Eggs: Spray in an inconspicuous area to test for possible staining or discoloration. Inspect again after drying, then proceed to spray entire area to be treated. Spray from a distance of 8 to 10 inches. Treat only those garments and parts of bedding, including mattresses and furniture that cannot be either laundered or dry cleaned. Allow all treated articles to dry thoroughly before use.

INDUSTRIAL WAREHOUSE FOGGING

For area control of crawling and flying insect pests for up to 4 weeks.

To control Spiders, Millipedes, Centipedes, Sowbugs, Pillbugs, Ants, Firebrates, Cigarette Beetles, Cheese Mites, Granary Weevils, Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Meal Worms, Indian Meal Moths, Corried Grain Beetles, Tobacco Beetles, Grain Mites and Cadelles: Fog area at the rate of 1 ounce per thousand cubic feet. Fogged area should be cleared of all personnel and pets while fogging is taking place and remain closed off for a period of 2 hours before reentry. This product is to be used solely for warehouse space used to store non-food/feed materials.

6/13

BIO KILL Brand Insecticide
Page 4 of 11

OUTDOOR APPLICATIONS

FOR CONTROL OF GARDEN INSECTS

For use on roses, dahlias, asters and other ornamentals to kill Japanese Beetles as well as Whiteflies, Aphids, Lace Bugs, Ants, exposed Thrips, Spiders, Red Mites and Leafminers. May be used on plants in small gardens as a multi-purpose spray and for spot treatments of incipient insect infestations to prevent spreading into larger garden areas.

When spraying plants, do not hold nozzle closer than 18 inches. Use a sweeping motion. Be cautious about wetting tender foliage, young plants and new growth. Do not spray plants when temperature exceed 90 F. Contact insects directly whenever possible. Repeat treatment as infestations occur.

ON DOGS

To control Fleas, Ticks, and Lice: Start spraying at the tail, moving the sprayer rapidly and making sure that the animal's body is covered, including the legs and underbody. While spraying, fluff the hair so that the spray will penetrate to the skin. Make sure spray wets thoroughly. Do not spray into eyes or face. Avoid contact with genitalia. Repeat as necessary or every three weeks. AS A DIP FOR DOGS Using one part product and three parts water make up enough material to thoroughly soak animal. Wet animal with water before treatment. Sponge, dip or pour diluted product on the animal until fur and skin are thoroughly wet, making sure that the animal's entire body is treated, including the legs and underbody. Do not treat animal's face.

ON CATS

To control Fleas: Start spray at the tail, moving the sprayer rapidly and making sure that the animal's body is covered, including the legs and underbody. While spraying fluff the hair so that the spray will penetrate to the skin. Make sure spray wets thoroughly. Do not spray into eyes or on face. Avoid contact with the genitalia. Repeat as necessary or every 16 days. DO NOT DIP CATS.

NOTE: Not recommended for use on puppies less than four weeks old nor kittens less than 12 weeks old nor on old, sick or debilitated animals.

7/13

BIO KILL Brand Insecticide
Page 5 of 11

ON LIVESTOCK

To protect beef and dairy cattle, goats, sheep and horses from Horn Flies, Face Flies, Mosquitoes and Gnats: Apply a light mist sufficient to wet the surface of the hair. For Face Flies, spray face and head, but do not spray into eyes.

To control Stable Flies, Horse Flies and Deer Flies: Apply at a rate of 2 ounces per adult animal, sufficient to wet the hair thoroughly. Repeat treatment daily or at intervals necessary to give control protection.

To control Blood-sucking Lice: Apply to infested area of the animal, using a stiff brush to get the spray to the base of the hair. repeat every 3 weeks if required.

To control Poultry Lice: Spray roosts, walls and nests or cages thoroughly. Follow by spraying over the bird with a fine mist.

To control Bedbugs and Mites in poultry houses: Spray crevices of roost poles, cracks in walls, and cracks in nest where the bedbugs and mites hide.

8/13

BIO KILL Brand Insecticide
Page 6 of 11

DIRECTIONS FOR USE AS A DILUTABLE PRODUCT
FOR USE ON INDOOR AND OUTDOOR PLANTS

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior plantscapes, ornamental gardens or lawns and grounds.

for use on ornamental plants, mix BIO KILL 0.25% with water in the following manner:

<u>FINISHED SPRAY</u>	<u>BIO KILL</u>	<u>WATER</u>
0.015%	8 ounces (1 cup)	1 gallon
	2 ounces (4 TBS)	1 quart

Note: Do not use more BIO KILL than recommended, as this may cause some plant injury.

Use this dilution unless otherwise specified.

CONTACT AND RESIDUAL SPRAY - Apply a finished spray of BIO KILL. USE SUFFICIENT SPRAY TO OBTAIN FULL COVERAGE OF ALL FOLIAGE. ADJUST SPRAY VOLUME USED TO PLANT SIZE.

INDOOR APPLICATION

To protect plants in indoor landscaping - spray directly on insects to kill Leafrollers, Armyworms, Cutworms, Cabbage Worms on chrysanthemums; Fungus Gnats on velvet plants. Spray as directed above. Spray as directed above to control Aphids, Armyworms, Corn Earworms, Fallcankerworms, Inchworms, Japanese Beetles, Leafminers, Leafrollers, Mealybugs, Scale, Spider Mites, Spring Cankerworms, Exposed Thrips, and Whiteflies on the following:

Ageratum	English Ivy	Poinsettia
Ardisia	Fuchsia	Portulaca
Aster	Gladiolus	Pothos
Azalea	Grape Ivy	Prayer Plant
Baby's Breath	Hypoestes	Purple Passion
Begonia	Ivy	Rabbits Foot Fern
Birds-nest Fern	Juniper	Rose
Bleeding Heart	Lily	Schefflera
Carnation	Marigold	Snapdragon
Chrysanthemum	Orchid	Snake Plant
Coals	Palm	Statice
Crown of Thorns	Pansy	Velvet Plant
Cockscomb	Piperomia	Verbena
Cyclamen	Petunia	Zinnia
Dracaena	Philodendron	
Dumbcane	Piggy-back Plant	

9/13

BIO KILL Brand Insecticide
Page 7 of 11

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 citrus blackflies on non-bearing citrus; adult Japanese beetles on roses.

OUTDOORS: Use 8 ounces (1 cup) of BIO KILL 0.25% and add to one gallon of water to make .015% finished spray.

CONTACT AND RESIDUAL SPRAY - Apply a finished spray of BIO KILL. USE SUFFICIENT SPRAY TO OBTAIN FULL COVERAGE OF ALL FOLIAGE. ADJUST SPRAY VOLUME USED TO PLANT SIZE.

Spray in late afternoon or evening, when 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. BIO KILL 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	Gladiolus	Pea Shrub
Arizona Cypress	Gold Bells	Petunia
Aster	Hypoestes	Philodendron
Azalea	Ivy	Poinsettia
Begonia	Lilac	Rhododendron
Coleus	Marigold	Rose
common ninebark	Mock Orange	Snapdragon
Common Snowberry	Nannyberry	Taxus
Elm	Orchid	Wax plants
Exacum	Palm	Weeping fig
Eunymous	Pansy	Zinnia
English Ivy		

10/13

BIO KILL Brand Insecticide
Page 8 of 11

FOR ORNAMENTAL TREES GROWN AROUND THE HOME ONLY: 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 firs; 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 late afternoon or evening, when caterpillars have returned to their tents. Apply BIO KILL FULL STRENGTH. Wet tents with spray on all sides. A few caterpillars may be seen escaping from the tent; however, they should die within several hours.

FOR USE ON 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	4.5 oz. per gallon, 10 gallons/1000 sq. ft.
Cutworms	1 oz. per gallon, 10 gallons/1000 sq. ft.
Chinch bugs	"
Japanese beetle grubs	"
Mole crickets	"
Sod webworms	"
Crickets	6.4 oz per gallon, 3 gallons/1000 sq. ft.
Grasshoppers	"
Ants (including Fire Ants)	"

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 dichonda and Irish moss. Use as directed above for lawns.

DIRECTIONS FOR USE OF BIO KILL ON VEGETABLES:
for residential or home Vegetable Gardens Only

Prepare BIO KILL spray mix as directed in the following chart.

Use 0.25 gallons (1 quart) of finished spray per 110 square feet or one liter per 10.7 square meters of surface area.

11/13

For Backyard Vegetable Gardens Only

Prepare spray mix as directed in following chart.

Vegetable	Target Pest(s)	Remarks	Recommended Dilution Use Rate Finished Spray
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.	13oz. / gal.
Tomatoes (Florida Only) Only for application to tomatoes grown in Florida for varieties yielding tomatoes less than one inch in diameter	Beet and Southern Armyworm ; Tomato Pinworm, Tomato Fruitworm, Horn Worms, 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.	13oz. / gal.

USE FOR FRUIT TREES AND NUT CROPS GROWN AROUND THE HOME

Apply finished spray to trees until foliage is dripping wet.

Trees (Fruit or Nut)	Target Pest(s)	Remarks	Recommended Dilution Use Rate Finished Spray
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.	16oz. / gal.
Apples	Plum Curculio, Redbanded Leafroller, Rosyapple Aphid, Spotted Tentiform Leafminer, Tarnished Plant Bug, White Apple Leafhopper, Obliquebanded 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.	16oz. / gal.
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.	16oz. / gal.
Pears (dormant through delayed dormant)	Pear Psylla	Apply during the dormant through delayed dormant growth period only. Add if desired 8oz. of spray oil to each gallon of Pramex End Use Spray. Do not make more than 2 applications per season.	16oz. / gal.
(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.	16oz. / gal.

12/
13

Vegetable	Target Pest(s)	Remarks	Recommended Dilution Us Rate Finished Spray
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.	7oz. / gal.
(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.	7oz. / gal.
Celery	Vegetable Leaf Miner, Cabbage Looper, Black and Granulate Cutworm, Fall, Beet and 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.	13oz. / gal.
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.	7oz. / gal.
Eggplant	Colorado Potato Beetle, Vegetable Leaf Miner	Apply for uniform coverage as needed. Do not exceed 16 applications. Can be applied up to 3 days prior to harvest.	13oz. / gal.
Horseradish (Spring Preplant Dip)	Imported Crucifer Weevil	Soak sets for 30 minutes in 0.1% solution and air dry before planting.	16oz. / qt.
(Foliar application)	Imported Crucifer Weevil	Apply as needed. Do not exceed 3 foliar applications. Can be applied up to 22 days prior to harvest.	13oz. / gal
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.	13oz. / gal.
Potatoes	Beet Armyworm, Colorado Potato Beetle, 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.	13oz. / gal.
Peppers	Vegetable Leafminer, Cabbage Looper, Fleabeetle, 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.	13oz. / gal.
Spinach	Beet Armyworm, Corn Earworm, Cabbage Looper, Cutworms, European Corn Borer, Green Cloverworm and Leaf hoppers	Apply for uniform coverage when needed but not more than 7 applications per season. Can be applied up to 7 days prior to harvest.	7oz. / gal.

STORAGE AND DISPOSAL

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

Pesticide Storage And Spill Procedures: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

Pesticide Disposal: Pesticide or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

Container Disposal:

CONTAINERS ONE GALLON AND SMALLER: Do not reuse empty container. Wrap container and put in trash collection.

CONTAINERS LARGER THAN ONE GALLON:

Metal Containers - Triple rinse or equivalent, then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Plastic Containers - Triple rinse or equivalent, then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish and aquatic organisms. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment wash water.

Buyer assumes all risks of use, storage or handling of this product in strict accordance with directions given herewith.