

64321-1

6/22/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

JUN 22 2012

Rebecca M Horton
Registration by Design, Inc
PO Box 1019
Salem, VA 24153-1019

Subject Notification To Add Optional Marketing Claim
EPA Reg No 64321-1
BIO KILL brand insecticide

Dear Ms Horton

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated May 4, 2012 for the product **BIO KILL brand pesticide**. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10

If you have any questions, please call me directly at 703-305-6701

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Gebken".

Richard Gebken
Project Manager Team 10
Registration Division (7505P)
Office of Pesticide Programs

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United States
Environmental Protection Agency
 Washington DC 20460

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1 Company/Product Number 64321-1	2 EPA Product Manager R Gebken	3 Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4 Company/Product (Name) Bio Kill brand insecticide	PM# Team 10	
5 Name and Address of Applicant (Include ZIP Code) Jesmond Holding Ag Chollerstrasse 35 CH6301 Zug Switzerland <input type="checkbox"/> Check if this is a new address	6 Expedited Review In accordance with FIFRA Section 3(c)(3) (b)(i) my product is similar or identical in composition and labeling to EPA Reg No _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification Explain below	<input type="checkbox"/> Other Explain below

Explanation Use additional page(s) if necessary (For section I and Section II)

NOTIFICATION of optional marketing claim for supplemental distributor product label when marketed as a 3rd product offering labeled for use on lice (page 10 of 10)

This notification is consistent with the provisions of PR Notice 98 10 and EPA regulations at 40 CFR 152.46 and no other changes have been made to the labeling or the Confidential Statement of Formula of this product JESMOND HOLDING AG understands that it is a violation of 18 U S C Sec 1001 to willfully make any false statement to EPA and further understands that if this notification is not consistent with the terms of PR Notice 98 10 and 40 CFR 152.46 this product may be in violation of FIFRA and JESMOND HOLDING AG may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA

Section - III

1 Material This Product Will Be Packaged In				2 Type of Container	
Child Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input checked="" type="checkbox"/> Other (Specify) outer paperboard box		
* Certification must be submitted		If "Yes" Unit Packaging wgt	No per container	If "Yes" Package wgt	No per container
3 Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4 Size(s) Retail Container 5 fl oz 1 QT		5 Location of Label Directions <input checked="" type="checkbox"/> on label	
6 Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled <input type="checkbox"/> Other _____					

Section - IV

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application)		
Name Rebecca M Horton	Title Consultant/Agent	Telephone No. (Include Area Code) 540 375 8826
<p align="center">Certification</p> <p>I certify that the statements I have made on this form and all attachments thereto are true accurate and complete I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law</p>		6 Date Application Received (Stamped)
2 Signature 	3 Title Consultant/Agent	
4 Typed Name Rebecca M Horton	5 Date May 4, 2012	

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Registrations by Design, Inc[™]

USPS PRIORITY DELIVERY CONFIRMATION
#9405 5036 9930 0001 7282 61
May 4 2012

PO Box 1019
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Document Processing Desk (NOTIF)
Office of Pesticide Programs/Registration Division (7504P)
U S Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave NW
Washington DC 20460

Re Notification EPA Reg No 64321 1, BIO KILL brand insecticide

Attn Richard Gebken PM Team 10

On behalf of Jesmond Holding Ag of Zug Switzerland enclosed is notification to of an optional marketing claim/logo – Step 3 Control' for use only when marketed by supplemental distributor as a 3rd product offering labeled for use on lice

No other changes are made to the label as previously approved by the Agency on Dec 27 2010

The following documents are enclosed

- 1) EPA Form 8570 1 Application for Pesticide – Notification
- 2) Copy of the revised label with areas of revision highlighted for convenience in review (see page 10 of 10)

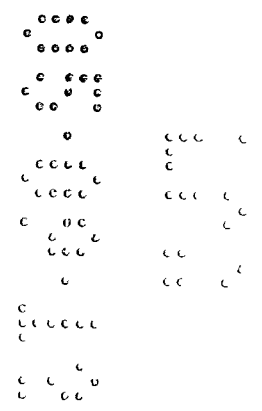
If additional action or information is required on Jesmond's behalf please advise

Best regards

Rebecca M Horton
Consultant/Agent for
JESMOND HOLDING AG
e mail hortonb@ntelos net

/bmh

Enclosures



[FRONT PANEL]

BIO KILL® brand INSECTICIDE

[Additional Brand Name Multipurpose BioKill brand insecticide Multi-Purpose BugBusters, BioKill brand insecticide Multi-purpose]

Optional Statements

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

Dilutable for use on plants

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 to control fleas and ticks

Can be used as a DIP for fleas on DOGS

Use on Poultry to control lice and mites

Provides effective broad-spectrum control of building and garden insect pests

Effective for up to four weeks

Multipurpose ready-to-use water based bug killer

Non-flammable do-it-yourself product

Easy to use - just spray affected areas

Use indoors and outdoors - broad spectrum insecticide includes cockroaches, mosquitoes, ants, spiders, flies moths, fleas, lice, bedbugs, crickets, grasshoppers and many, many other listed species

No odor - Non-staining - No sticky residue

Odorless and Multi-purpose Insecticide

Long lasting - residual effect up to 4 weeks

Sold in over 30 countries

Ready to-use water-based bug killer

Kills *crawling* insects including cockroaches ants, fire ants fleas, spiders, ticks, lice silverfish earwigs, beetles, bedbugs, crickets and more!

Kills *flying* insects, including flies, moths, mosquitoes, gnats, hornets, wasps, black flies and more!

Rx for bugs

For Bedding & Furniture

NOT FOR USE ON HUMANS

The Only Lice Control Spray Available in a Non-Aerosol Bottle

Observe all precautionary statements and follow directions for use carefully

Household insects cockroaches, fleas bed bugs many many more

Household plants and indoor landscaping

Pet spray for dogs to eliminate fleas, ticks and lice

Lawns & gardens many listed insects

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ACTIVE INGREDIENT

Permethrin (CAS #52645-53-1) 0.25%

OTHER INGREDIENTS

99.75%
100.00%

[NOTE TO EPA Front panel of label may include graphics representing product use e.g. insects controlled]

Keep Out of Reach of Children

CAUTION

See back/side/other panel(s) (& accompanying booklet) for additional precautionary statements

NET CONTENTS _____

[BACK/SIDE/OTHER PANEL(S) &/OR BOOKLET, WHEN NECESSARY]

READ ENTIRE LABEL BEFORE EACH USE

SHAKE BOTTLE WELL BEFORE USING

COMMERCIAL APPLICATIONS

For use in non-food areas indoors and outside premises of Hotels, Motels, Commercial buildings, Schools, Warehouses, Theaters, Office Buildings, Kennels, Apartments and Condominium buildings, and non-food contact areas of food-feed processing establishments

Inside and outside landscaping

Controls bugs inside garbage bins, garbage dumpsters and in garbage chutes

Controls bugs in hallways, common areas and inside apartments, office units and public areas

HOUSEHOLD APPLICATIONS

House plants and indoor landscape

Inside - along baseboards, in carpets, mattresses, around cupboards, etc

Outside - in gardens, on ornamental flowers, lawns, vegetables and fruit trees

DOMESTIC ANIMALS

Dogs to control fleas & ticks

Poultry to control lice, fleas & ticks

Livestock - protects beef and dairy cattle, goats, sheep and horses from horn flies, face flies, mosquitoes and gnats

[NOTE TO EPA When marketed for use on dogs, the following precautionary statement will be added to label

PRECAUTIONARY STATEMENTS

Hazards to Domestic Animals

CAUTION Sensitivities may occur after using ANY pesticide product for pets. If signs of sensitivity occur, bathe your pet with mild soap and rinse with large amounts of water. If signs continue, consult a veterinarian immediately.]

[When labeled for outdoor use]

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish and aquatic organisms To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches gutters or surface waters Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems 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

[When labeled exclusively for indoor use]

ENVIRONMENTAL HAZARDS

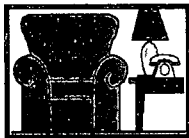
This product is extremely toxic to fish and aquatic organisms To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters

DIRECTIONS FOR USE

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

FOR USE IN NON-FOOD AREAS INDOORS AND OUTSIDE PREMISES OF HOTELS, MOTELS HOMES SCHOOLS PRESCHOOLS NURSERIES DAY CAMPS, GREENHOUSES, LATHHOUSES, SEED HOUSES, FOOD HANDLING ESTABLISHMENTS, PACKAGING AND PROCESSING PLANTS, BREWERIES, COMMERCIAL, INDUSTRIAL OFFICE INSTITUTIONAL AND STORAGE BUILDINGS DAIRIES, MILK STORAGE ROOMS EGG PROCESSING PLANTS STORES GROCERY STORES/SUPERMARKETS, RESTAURANTS, BOTTLING PLANTS, CANNERIES FLOWER AND FEED MILLS BAKERIES, WAREHOUSES PORTABLE TOILETS, AND IN HOSPITALS IN HOSPITALS, PATIENTS SHOULD BE REMOVED PRIOR TO TREATMENT ALSO FOR USE IN CAMPERS, MOBILE HOMES, BUSES, AUTOMOBILES, TRUCKS BOXCARS MARINAS, BOATS AND SHIPS ALSO FOR USE IN DOG KENNELS AND HORSE STABLES IN HORSE STABLES, NOT FOR APPLICATION IF HORSES WILL BE USED FOR FOOD

INDOOR APPLICATIONS



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 foods may be prepared or held The product may be used in non-food/feed areas of food/feed establishments such as garbage rooms lavatories, 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 Federally Inspected Meat and Poultry Plants Do not apply to classrooms while in use Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains water bodies, or aquatic habitat can occur Do not allow the product to enter any drain during or after application

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

To control *ants, boxelder bugs, brown dog ticks, cadelles, centipedes, cheese mites, cluster flies, clover mites, cockroaches, crickets, earwigs, fire ants, flying moths, fruit flies, gnats, grasshoppers, house flies, Lone star ticks, mealworms, millipedes, mosquitoes, palmetto bugs, rice weevils, scorpions, silverfish (firebrats), sowbugs (pillbugs), spider beetles, spiders and waterbugs*

Direct the spray into hiding places, cracks and crevices behind shelves and drawers, moist areas openings around pipes and sinks, under refrigerators Spray directly into and around floor drains For silverfish, spray bookcases For Ants spray trails, nests and points of entry

To control *carpet beetles* Hold container 14-18 inches from carpet Apply spray evenly, covering the entire surface until slightly moist Avoid wetting or soaking Spray underside of carpet when possible Also spray floor and along baseboards, cracks and crevices wherever these insects are seen or suspected

To control *bedbugs* 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 (e.g., rugs and carpeting) 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 treated 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

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 and carpet beetles* remove infested grain cereal or flour and destroy Avoid contamination of other food and foodstuffs in the area 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 Any utensils that are contacted with spray should be washed before reusing Repeat as necessary



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, firebrats, cigarette beetles, cheese mites, granary weevils, rice weevils, confused flour beetles, rust red flour beetles, mealworms, Indian meal moths, coried grain beetles, tobacco beetles, grain mites and cadell*
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

OUTDOOR APPLICATIONS

Do not water the treated area to the point of run-off Do not make applications during rain All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses

- (1) Treatment to soil or vegetation around structures
- (2) Applications to lawns, turf and other vegetation,
- (3) Applications to building foundations up to a maximum height of 3 feet

Other than applications to building foundations all outdoor applications to impervious surfaces such as sidewalks, driveways patios porches and structural surfaces (such as windows doors and eaves) are limited to spot and crack-and-crevice applications only



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 exceeds 90°F Contact insects directly whenever possible Repeat treatment as infestations occur

Nuisance Insect Pests 1 gallon BIO KILL brand insecticide treats 800 linear feet with a 6-inch band [16 fl oz BIO KILL brand insecticide treats 100 linear feet with a 6-inch band]

Outside Surfaces of Buildings To control *ants, clover mites, crickets, earwigs, millipedes, sowbugs (pillbugs)* To help prevent infestations spray the building foundation to a height of 2 3 feet where insects are active and may find entrance Apply as a residual spray to porches screens window frames eaves, patios, garages, refuse dumps and other outside building areas where these pests congregate or are seen Repeat treatment as needed to maintain effectiveness To aid in reducing annoyance from *cluster flies, flying moths, gnats, house flies* and *mosquitoes*, spray outside surfaces of screens doors window frames or wherever these insects may enter Treat surfaces around light fixtures on porches, in garages and other places where these insects gather Repeat as necessary

Other Outdoor Areas To kill *crickets, earwigs* and *fleas* thoroughly spray infested areas of weeds or brushy non-crop areas For *ants* thoroughly wet hills and runways Repeat application as reinfestations occur



Wasps, Hornets, Yellow Jackets Application should be made in the late evening when insects are at rest Spray liberally into hiding and breeding places including nest openings in ground, bushes under attic rafters and other cracks and crevices which may harbor pests Saturate nest openings and contact as many insects as possible Repeat as necessary

Fire Ants Apply 1 gallon of BIO KILL 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 (1.22 m) 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

Ticks (including ticks which may carry lyme disease) Apply as a residual treatment to control *Deer tick (Ixodes dammiei)*, *Lone Star tick (Amblyomma americanum)*, *Brown dog tick (Rhipicephalus sanguineus)*, *American dog tick (Dermacentor variabilis)* and *Western black-legged tick (Ixodes pacificus)* Apply until surface is wet (approximately 1 gal/750-1000 ft) [(approximately 16 fl oz /94-125 ft)] Treat around windows and doors, porches screens, eaves, patios, garages, under stairways and in crawl spaces where these pests may enter Treat a band of vegetation and leaf litter 6-10 feet wide around the outside of buildings to help control ticks occurring there To help control ticks in outdoor activity areas treat a band of vegetation and leaf litter 6-10 feet wide and adjacent to activity areas especially where dense vegetation occurs



ON DOGS

USE ONLY ON DOGS Consult a veterinarian before using this product on debilitated, aged pregnant nursing or medicated animals

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 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 Do not use on puppies less than 12 weeks old



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 aid in control of above listed insects and reduce annoyance to livestock thoroughly spray barn walls, stalls and surfaces where these pests may alight or congregate

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 nests where the bedbugs and mites hide

To control *flies, mosquitoes and gnats* in barns milk rooms dairy plants slaughter and poultry houses Apply as a fog or fine mist, directing spray toward the ceiling and upper corners of the room until the area is filled with mist using 1 oz of Bio Kill® brand insecticide in 2 quarts of water to cover 1,000 cubic feet of space For best results close windows and doors before spraying and keep closed for 10 to 15 minutes Vacate the area and ventilate before re-occupying Repeat application as necessary

**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

Note Do not use more BIO KILL than recommended as this may cause some plant injury Use this dilution unless otherwise specified 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

CONTACT & RESIDUAL SPRAY - Apply as a thorough coverage spray, wetting leaves and branches to run off Use sufficient spray to penetrate dense foliage Adjust spray volume used to plant size



Indoor Application Mix 8 oz (1 cup) of BIO KILL 0.25% with 1 gallon of water [2 oz (4 Tbs) of BIO KILL with 1 quart of water] 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

To protect plants in indoor landscaping, spray directly on insects to kill *leafrollers*, *armyworms*, *cutworms* and *cabbageworms* on Chrysanthemums, *fungus gnats* on Velvet plants Spray as directed above to control *aphids*, *armyworms*, *corn earworms*, *fall cankerworms*, *inchworms*, *Japanese beetles*, *leafminers*, *leafrollers*, *mealybugs*, *scale*, *spider mites*, *spring cankerworms*, *exposed thrips* and *whiteflies* on the following Ageratum Ardisia Aster Azalea Baby's breath, Begonia, Birdsnest 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, Peperomia, Petunia Philodendron Piggy-back plant, Poinsettia, Portulaca Pothos, Prayer plant Purple passion, Rabbits foot fern Rose, Schefflera, Snapdragon Snake plant Statice Velvet plant Verbena, Zinnia



Outdoor Application Do not water the treated area to the point of run-off Do not make applications during rain All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses

- (1) Treatment to soil or vegetation around structures,
- (2) Applications to lawns, turf and other vegetation
- (3) Applications to building foundations up to a maximum height of 3 feet

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks driveways patios, porches and structural surfaces (such as windows, doors and eaves) are limited to spot and crack-and-crevice applications only

Mix 8 oz (1 cup) of BIO KILL 0.25% with 1 gallon of water [2 oz (4 Tbs) of BIO KILL with 1 quart of water] Spray in the late afternoon or evening when temperature ranges from 50°F to 78°F and when there is little or no wind Spray at the first sign 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 collect on Repeat applications may be necessary to control citrus blackflies on non-bearing citrus adult Japanese beetles on roses

Roses & Flowers Spray as directed above to control *aphids, cicadas, corn earworms, fall cankerworms, fall webworms, inchworms, leafminers, leafrollers, mealybugs, bagworms, spider mites, exposed thrips and whiteflies* on the following Ageratum Aster, Azalea, Begonia, Coleus, Common ninebark, Common snowberry, Exacum, Gladiolus, Gold bells, Hypoestes Ivy Lilac Marigold, Mock orange, Nannyberry, Orchid Pansy Pea shrub Petunia, Poinsettia Rhododendron Rose, Snapdragon Wax plants Zinnia

Trees & Shrubs Use sufficient spray to obtain full coverage of all foliage Avoid heavy wetting Use to control *aphids, bagworms, cicadas, exposed thrips, fall cankerworms, inchworms, leafminers, leaf rollers, mealybugs, spider mites and whiteflies* on the following Arizona cypress Birch Cherry non-bearing Citrus Conifers Elm Euonymous, English ivy, Fir, Honeysuckle Oak, Palm, Philodendron, Pine Taxus Tulip Poplar and Weeping fig Use to control *pine moths, pine needleminers, pine beetles and needle scales* on Pine, *budworms* on Conifers, *oakworms* on Oak, *fall webworms* on Cherry Elm and Honeysuckle *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

LAWNS For *armyworms* mix 4½ oz in 1 gal of water and use 10 gals of diluted BIO KILL solution to cover 1 000 sq ft For *brown dog ticks, chunch bugs, cutworms, fleas, Japanese beetle grubs, mole crickets* and *sod webworms* mix 1 oz in 1 gal of water Use 10 gals of diluted BIO KILL solution to cover 1,000 sq ft To control *ants (including fire ants), crickets* and *grasshoppers* mix 6.4 oz in 1 gal of water Use 3 gals of diluted BIO KILL solution to cover 1,000 sq ft

Thoroughly wet down grass a few hours before applying 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 2 weeks Also for control of *cutworms on dichondra and Irish moss* Use as directed above for lawns

FRUIT & NUT TREES For use on fruit and nut trees grown around the home Mix 1 pt (16 fl oz) BIO KILL in 1 gallon of water Apply when insects appear Spray until foliage is dripping wet

Almonds *Naval orangeworm, Peach twig borer* 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

Apples *Plum curculio, Redbanded leafroller, Rosy apple aphid, Spotted tentiform leafminer, Tarnished plant bug, White apple leafhopper, Obliquebanded leafroller, Green fruitworm*

Repeat as required to maintain control Do not make more than 3 applications per season Do not apply after petal fall

Peaches *Lesser peachtree borer, Peach twig borer, Plum curculio, Tarnished plant bug, Green fruitworm, Oriental fruit moth* Do not apply within 7 days of harvest Do not make more than 8 applications per season

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 finished spray solution Do not make more than 2 applications per season

Pears (summer) *Pear psylla, Green fruitworm, Codling moth* Apply when needed Do not apply more than 3 applications per season Can be applied up to 14 days prior to harvest

VEGETABLES For Residential or Home Vegetable Gardens Only

Prepare BIO KILL spray mix as directed Use 0.25 gallons (1 qt) of finished spray per 110 sq ft or 1 liter per 10.7 square meters of surface area

Asparagus (preharvest) *Cutworm, Asparagus beetle* - Mix 7 oz in 1 gal of water 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 (postharvest) *Larval stages of Asparagus beetle, tarnished plant bug, lygus bugs, and adult Japanese beetle* Mix 7 oz in 1 gal of water Treat ferns or bush growth after spear harvest when insects are present

Celery *Vegetable leafminer, Cabbage looper, Black and Granulate cutworm, Armyworms (fall, beet & southern)* Mix 13 oz in 1 gal of water 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

Cole Crops (Broccoli, Brussels sprouts, Cabbage, Cauliflower) *Beet armyworm, Diamond back moth, Imported cabbageworm, Cabbage-aphid, Cabbage looper* Mix 7 oz in 1 gal of water 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

Eggplant *Colorado potato beetle, Vegetable leafminer* Mix 13 oz in 1 gal of water Apply for uniform coverage as needed Do not exceed 16 applications Can be applied up to 3 days prior to harvest

Horseradish *Imported crucifer weevil* **Spring preplant dip** - Mix 1 pt (16 oz) in 1 qt of water Soak sets for 30 minutes and air dry before planting **Foliar application** - Mix 13 oz in 1 gal of water Apply as needed Do not exceed 3 foliar applications Can be applied up to 22 days prior to harvest

Lettuce (Head lettuce only - do not use on leaf lettuce) *Cabbage looper, Alfalfa looper, Beet armyworm, Corn earworm and Tobacco budworm* Mix 13 oz in 1 gal of water 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

Peppers *Vegetable leafminer, Cabbage looper, Flea beetle, Corn earworm, Pepper weevil, European corn borer* Mix 13 oz in 1 gal of water Apply as needed but not more than 8 sprays per season Can be applied up to 3 days prior to harvest

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* Mix 13 oz in 1 gal of water Apply as needed Do not apply more than 12 applications Can be applied up to 7 days prior to harvest

Spinach *Beet armyworm, Corn earworm, Cabbage looper, Cutworms, European corn borer, Green cloverworm, Leafhoppers* Mix 7 oz in 1 gal of water Apply for uniform coverage when needed, but not more than 7 applications per season Can be applied up to 7 days prior to harvest

Sweet corn *Corn earworm, European Corn borer, Fall armyworm, Southern armyworm* Mix 13 oz in 1 gal of water 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

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* Mix 13 oz in 1 gal of water Apply for uniform coverage when needed but not more than 6 applications per season Can be applied up to date of harvest

