

## Crop Protection EC 5.0<sub>II</sub>

### Specimen Label

- Contains pyrethrins—a botanical insecticide derived from chrysanthemums
- Provides rapid knockdown and kill of plant pests
- For use on growing crops and ornamentals
- Can be used on day of harvest
- Kills key livestock pests



#### ACTIVE INGREDIENT:

Pyrethrins .....	5.00%
OTHER INGREDIENTS .....	95.00%
	100.00%

#### 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 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), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

- Coveralls over short-sleeved shirt and short pants;
- Chemical-resistant gloves, such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton;
- Chemical-resistant footwear plus socks; and
- Chemical-resistant headgear for overhead exposure.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR, Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

Wear protective clothing when using or handling this product to help avoid exposure to eyes and skin. Eye protection, gloves, a long-sleeved shirt and long pants are recommended.

Allow spray to dry before allowing adults, children or pets on treated areas.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.



KEEP OUT OF REACH OF CHILDREN  
**CAUTION PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

#### INDOOR AREAS for use in and around:

Animal Areas and Quarters	Food Storage Areas	Livestock Barns	Spice Plants
Animal Control Centers	Freight Containers	Livestock Hauling Equipment	Spice Production Facilities
Animal Shelters	Frozen Food Plants	Loafing Sheds	Stables
Barns	Fruit Packing Sheds	Meat Packing Plants	Storage Bins (areas)
Buildings	Garages	Milk Rooms	Storage or Processing Areas that contain Dried Fruit Products
Cabins	Grain Elevators	Milking Parlors	Swine Houses
Canneries	Grain Harvesting and Handling Equipment	Mills	Tobacco Factories
Cattle Barns	Grain Mills	Mushroom Processing Areas	Tobacco Warehouses
Cattle Stalls	Granaries	Peanut Warehouses	Tool Sheds
Circus Tents	Herb Drying and Processing Facilities	Poultry Houses	USDA Inspected Facilities
Commercial Buildings	Herb Warehouses	Poultry Plants	Veterinary Hospitals
Dairies	Homes	Pounds	Warehouses
Dairy Stalls and Holding Areas	Horse Stables and Barns	Rabbit Processing Plants	Wheat Mills
Dog Houses	Horse Trailers	Research Animal Quarters	Wineries
Dwellings	Industrial Installations	Rice Mills	Zoos
Egg Processing Plants	Kennels	Seed Production Facilities	
Factories		Seed Warehouses	
Food Processing Plants			

#### OUTDOOR AREAS for use in and around:

Back Yards	Exterior of Homes and Other Buildings	Greenhouses	Side Yards
Campgrounds	Fair Grounds	Livestock Pasture	Trees, Shrubs, Flowers and Foliage Plants
Circuses	Feedlots	Manure Piles	Wild Animal Parks
Corrals	Front Yards	Nurseries	Wood Piles
Courtyards	Gardens	Outdoor Growing Crops	Zoos and Other Similar Areas
Dumpsters	Golf Courses	Parks	

## For use on:

Beefalo	Ducks	Lambs	Poultry
Birds	Elk	Livestock	Pullets
Buffalo	Emus	Llamas	Quail
Calves	Exotics	Mules	Ratites
Cattle – beef and milking	Geese	Ostrich	Roosters
Chickens	Goats	Oxen	Sheep
Donkeys	Hogs	Pheasants	Swine
	Horses	Ponies	Turkeys

## To kill the following insects:

12-spotted Cucumber Beetles	Cross-striped Cabbageworms	Harlequin Bugs	Rice Weevils
Angoumois Grain Moths	Cucumber Beetles	Heliothis spp.	Saltmarsh Caterpillars
Ants (excluding fire and Pharaoh ants)	Dark Mealworms	Horn Flies	Saw-toothed Grain Beetles
Aphids	Darkling Beetles (lesser meal worm)	Hornworms	Scales
Apple Maggots	Diamondback Larvae and Moths	House Flies	Sharpshooters
Armored Scales	Dried Fruit Beetles	Imported Cabbageworms	Sheep "Tick" or Ked
Armyworms	Drugstore Beetles	Indian Meal Moths	Shore Flies
Artichoke Plume Moths	Earwigs	Japanese Beetles	Shot Hole Borers
Asparagus Beetles	Eastern Tent Caterpillars	Katydid	Silverfish
Bagworms	Elm Leaf Beetles	Lace Bugs	Skippers
Bean Beetles	Eriophyd Mites	Leaf-footed Plant Bugs	Small Flying Moths
Beet Armyworms	European Pine Tip Moths	Leafhoppers	Soft Scales
Bermuda Grass Mirids	Fire Worms	Leafminers	Southern Chinch Bugs
Billbugs	Flea Beetles	Leafrollers	Sow Bugs
Blister Beetles	Fleas	Leaf-tiers	Spider Beetles
Blow Flies	Forest Tent Caterpillars	Lice	Spiders (excluding brown recluse spiders)
Boll Weevils	Fruit Flies	Loopers	Springtails
Boxelder Bugs	Fruit Tree Leaf Rollers	Lygus	Squash Bugs
Branch and Twig Borers	Fruitworms	Maggots	Stable Flies
Brown Dog Ticks	Fungus Gnats	Mealy Bugs	Stink Bugs
Cabbage Loopers	Garden Symphylan	Mediterranean Flour Moths	Tarnished Plant Bugs
Cabbage Maggots	Glassy Winged Sharpshooters	Mexican Bean Beetles	Trips
Cadellles	Gnats	Midges	Tobacco Moths
Cankerworms	Grain Mites	Millipedes	Tomato Budworms
Carrot Weevils	Grape Leaf Skeletonizers	Mites	Tomato Bugs
Caterpillars	Grape	Mole Crickets	Tomato Fruit Worms
Chalcids	Grape Leafhoppers	Moths	Tomato Hornworms
Cheese Skippers	Grape Mealy Bugs	Mushroom Flies	Tomato Pinworms
Cherry Fruit Flies	Grasshoppers	Navel Orangeworms	Tomato Russet Mite
Cigarette Beetles	Green Bugs	Olive Fruit Flies	Tussock Moths
Clover Mites	Green Fruit Worms	Onion Maggots	Vine Mealy Bugs
Clover Weevils	Green Peach Aphids	Orange Tortrix	Vinegar Flies
Cockroaches	Greenhouse Thrips	Pacific Flatheaded Borers	Webworms
Codling Moths	Greenhouse Thrips	Pear Psyllids	Weevils
Colorado Potato Beetles	Gypsy Moths (adults and larvae)	Pepper Weevils	Western Armyworms
Confused Flour Beetles		Pink Bollworms	Whiteflies
Corn Earworms		Potato Leafhoppers	Yellow Mealworms
Crane Flies		Potato Tuberworms	
Crickets		Poultry Lice	
		Proba Bugs	
		Psyllids	
		Red Flour Beetles	

## GENERAL USE DIRECTIONS

**IMPORTANT:** It is recommended that the final spray mix be buffered to a pH of 5.5-7.0. Outside of this range pyrethrins can degrade and the product will lose effectiveness.

To avoid possible harm to honey bees and other beneficial insects, it is advisable to apply when the non-target insects are least active.

Pyrethrins degrade rapidly in sunlight. To ensure the best performance, coverage is key. Use spray equipment that will provide the best coverage and direct contact with as many insects as possible.

**TANK MIX:** This product may be tank mixed with other insecticides, acaricides, fungicides, adjuvants, and wetting agents. This application should conform to accepted use precautions and directions for both products. Tank mix applications must be made in accordance with the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be mixed with any product with label prohibitions against such mixing.

Prior to tank mixing, a compatibility test should be conducted using the proper proportions of products and water to ensure the physical compatibility of the mixture.

**IMPORTANT NOTE:** Plant safety is an important consideration when using insecticides in a greenhouse. However, it is not possible to evaluate the phytotoxicity of PyGanic® Crop Protection EC 5.0<sub>g</sub> on numerous plant varieties that may react differently to insecticides in different growth stages or under varying environmental conditions. Before making widespread applications of PyGanic® Crop Protection EC 5.0<sub>g</sub> or tank mix combinations, treat a limited number of plants and observe for phytotoxicity over a 10-day period.

### DIRECTIONS FOR APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION):

Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for the operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the pump motor stops. The irrigation line or water pump must include a functional pressure valve, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must be a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

Constant agitation must be maintained in the chemical supply tank during the entire period of insecticide application. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of more dilute suspension per unit of time.

## GROWING CROPS (OUTDOORS AND IN GREENHOUSES AND NURSERIES)

Apply 4.5 to 18 fluid ounces per acre by ground equipment in sufficient water for thorough coverage. This product may be applied by air at the rate of 4.5 to 18 fluid ounces per acre in a minimum of 20 gallons of water. Mix only enough for immediate use. Spraying should begin when insects first appear. Do not wait until plants are heavily infested. Repeat as needed but not more than once daily.

PyGanic® Crop Protection EC 5.0<sub>g</sub> may be used on most crops because its active ingredient is exempt from tolerances when applied to growing crops. The crop-grouping scheme used on this label was devised by the Environmental Protection Agency to expedite minor use

pesticide registration. Each crop grouping on this label contains the phrase “including” and then lists a number of crops in each group. This wording allows the use of PyGanic® Crop Protection EC 5.0<sub>g</sub> on crops that may not be specifically listed on this label (providing that the group to which the crop belongs is listed).

**ROOT AND TUBER VEGETABLES:** Including: Arracacha, Arrowroot, Purple Arrowroot, Japanese Artichoke, Jerusalem Artichoke, Garden Beets, Sugar Beets, Edible Burdock, Edible Canna, Carrots, Cassava (bitter or sweet), Celeriac (celery root), Chayote (root), Chervil (turnip rooted), Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Japanese Radish (daikon), Rutabaga, Salsify, Black Salsify, Spanish Salsify, Sweet Potato, Tanier, Turmeric, Turnip, Yam (true), Yam Bean.

**LEAVES OF ROOT AND TUBER VEGETABLES:** Including: Garden Beet, Sugar Beet, Edible Burdock, Carrot, Cassava (bitter or sweet), Celeriac (celery root), Chervil (turnip rooted), Chicory, Dasheen (taro), Parsnip, Radish, Japanese Radish (daikon), Rutabaga, Black Salsify, Sweet Potato, Tanier, Turnip, Yam (true).

**BULB VEGETABLES:** Including: Garlic, Great-headed Garlic, Leek, Onion (bulb and green) Welch, Shallot.

**LEAFY VEGETABLES:** Including: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula, Cardoon, Celery, Chinese Celery, Celtuce, Chervil, Corn Salad, Chrysanthemum (edible-leaved), Chrysanthemum (garland), Cress (garden, water), Upland Cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Fennel (Florence), Lettuce (head and leafy), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach, Fine Spinach (Melabar, Ceylon), Spinach (New Zealand), Swiss Chard.

**BRASSICA (COLE) LEAFY VEGETABLES:** Including: Broccoli, Chinese Broccoli (Gai Lan), Broccoli Raab (rapini), Brussel Sprouts, Cabbage, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavallo Broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens.

**LEGUME VEGETABLES (SUCCULENT OR DRIED):** Including: Adzuki Beans, Field Beans, Kidney Beans, Lima Beans, Moth Beans, Mung Beans, Navy Beans, Pinto Beans, Rice Beans, Runner Beans, Snap Beans, Tepary Beans, Urd Beans, Wax Beans, Asparagus Beans, Black-eyed Peas, Catjang, Chinese Longbeans, Cowpeas, Chowder Peas, Southern Peas, Yardlong Beans, Broad Beans (fava beans), Chick Peas (garbanzo beans), Guar, Jackbeans (sword beans), Lablab Beans (hyacinth bean), Lentils, Peas (garden peas, field peas, sugar snap peas, English peas, snow peas), Pigeon Peas, Soybeans, Sweet Lupin Beans, White Lupin Beans, White Sweet Lupin, Sword Beans.

**FOLIAGE OF LEGUME VEGETABLES:** Including: Plant part of any legume vegetable included in the legume vegetable group that will be used as animal feed including any variety of Beans, Field Peas, Soybeans.

**FRUITING VEGETABLES:** Including: Eggplant, Ground Cherry, Okra, Pepinos, Pepper (bell pepper, chili peppers, cooking peppers, pimentos, sweet peppers), Tomatillo, Tomatoes.

**CUCURBIT VEGETABLES:** Including: Balsam Apple, Balsam Pear (bitter melon), Chayote (fruit), Chinese Waxgourd (Chinese preserving melon), Chinese Cucumber, Citron Melon, Cucumber, Gherkin, Edible Gourds, Melons (including hybrids, cantaloupe, casaba, golden perhasaw melon, crenshaw, honeydew melons, honey balls, mango melon, muskmelon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Squash (summer and winter), Watermelon (including hybrids).

**CITRUS FRUITS:** Including: Calamondin, Citrus Citron, Citrus Hybrids, Grapefruits, Kumquats, Lemons, Limes, Mandarin (tangerine), Orange (sweet and sour), Pummelo, Satsuma Mandarin, (Citrus spp. includes chironja, tangelos, tangors).

**POME FRUITS:** Including: Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental Pear, Quince.

**STONE FRUITS:** Including: Apricot, Cherry (sweet and sour), Nectarine, Peach, Plum, Prune, Chickasaw Plum, Damson Plum, Japanese Plum, Plumcot.

**SMALL FRUITS AND BERRIES:** Including: Blackberry, Blueberry, Cranberry, Currant, Dewberry, Elderberry, Gooseberry, Grape, Huckleberry, Loganberry, Olallie Berry, Raspberry (black and red), Strawberry, Youngberry.

**TREE NUTS:** Including: Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazel nut), Hickory Nut, Macadamia Nut (bush nut), Pecan, Pistachio, Walnut, Black and English (Persian).

**ORIENTAL VEGETABLES:** Including: Acerola, Ateemoya, Balsam pear (bitter melon), Carambola, Japanese Artichoke, Chinese Broccoli (Gai Lan), Chinese Cabbage (Bok Choy, Napa), Chinese Mustard Cabbage (Gai Choy), Dasheen, Ginger, Ginseng, Chinese Longbeans, Mung Beans, Citron Melon, Japanese Radish (daikon), Chinese Spinach, Chinese Waxgourd, Cilantro, Citron Melon, Rambutan, Water Chestnut.

**SUBTROPICAL FRUITS:** Including: Avocado, Banana, Carob, Barbados Cherry, Cherimoya, Dates, Durian (jackfruit), Feijoa, Figs, Guava, Kiwifruit, Lychee, Mando, Papaya, Passion Fruit, Persimmon, Pineapple, Pomegranate.

**CEREAL GRAINS:** Including: Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl Millet, Popcorn, Rice, Rye, Sorghum (milo), Teosine, Triticale, Wheat, Wild Rice.

**FORAGE, FODDER AND STRAW OF CEREAL GRAINS:** Including: Barley, Buckwheat, Corn (sweet and field), Millet, Proso, Oats, Pearl, Popcorn, Rice, Rye, Sorghum (milo), Teosine, Triticale, Wheat, Wild Rice.

**GRASSES FOR SEED, FORAGE, FODDER AND HAY:** Including: any grass (Gramineal family, green or cured, except sugarcane and those listed in the cereal grains group) Pasture and Range Grasses, Grasses grown for hay and silage, Bermuda Grass, Bluegrass, Bromegrass, Fescue, Oat Hay, Orchard Grass, Forage Sorghum, Sudangrass, Timothy.

**NON-GRASS ANIMAL FEEDS:** Including: Alfalfa, Velvet Bean, Clover, Kudzu, Lespedeza, Lupine, Sainfoin, Trefoil, Crown Vetch, Milk Vetch.

**HERBS AND SPICES:** Including: Allspice, Angelica, Anise (anise seed), Anise [star], Annatto (seed), Balm (lemon balm), Basil, Borage, Burnet, Camomile, Caper Buds, Caraway, Caraway [black], Cardamom, Cassia Bark, Cassia Buds, Catnip, Celery Seed, Chervil (dried), Chicory, Chive, Chive [Chinese], Cinnamon, Clary, Clove Buds, Coriander (cilantro or Chinese parsley leaf), Coriander (cilantro) (seed), Costmary, Culantro (leaf), Culantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Fennel (common), Florence Fennel (seed), Fenugreek, Grains of Paradise, Horehound, Hyssop, Juniper Berry, Lavender, Lemongrass, Lovage (leaf), Lovage (seed), Mace, Marigold, Marjoram (includes sweet or annual marjoram, wild marjoram or oregano, and pot marjoram), Mustard (seed), Nasturtium, Nutmeg, Oregano, Mint, Paprika, Parsley (dried), Pennyroyal, Pepper [black], Pepper [white], Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory [summer and winter], Sweet Bay (bay leaf), Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

**ADDITIONAL CROPS:** Including: Artichoke, Asparagus, Avocado, Coffee, Cotton, Hops, Jojoba, Mushroom, Okra, Olives, Peanuts, Pineapple, Rice, Safflowers, Sesame, Sugar Cane, Sunflower, Tea.

**TO KILL ANTS ON ORCHARD FLOORS AND VINEYARD FLOORS:** Apply as a broadcast spray to the entire orchard or vineyard floor using ground spray equipment at 5 to 18 fluid ounces per acre in 25 or more gallons of water. For best results use the high rate for heavy infestations and the lower rate for light infestations.

Do not apply where weed growth or other obstructions would impede uniform coverage of the orchard or vineyard floor. Mow or chemically control weeds before the application. Foliar applications of PyGanic® Crop Protection EC 5.0<sub>g</sub> may be made in addition to the orchard floor treatment.

**ORNAMENTALS:** Including: African Violet, Ageratum, Aster, Azalea, Begonia, Calceolaria, Calendula, Calla, Camellia, Carnation, Ceanothus, Cineraria, Chrysanthemum, Coleum, Cyclamen, Cypress, Daffodil, Dahlia, Delphinium, Dogwood, Elm, Eucalyptus, Fern, Ficus, Foliage Plants, Fuchsia, Gardenia, Geranium, Gladiolus, Gloxinia, Gypsophila, Holly, Hyacinth, Hydrangea, Iris, Lily, Maidenhair Fern, Marigold, Narcissus, Palm, Pansy, Peony, Pelargonium, Petunia, Philodendron, Phlox, Pine, Pyracantha, Rhododendron, Roses, Rubber Plant, Snapdragon, Sweet Pea, Tulips, Viburnum, Wandering Jew, Yew, Zinnia and Andromeda, Arborvitae, Ash, Beech, Birch, Boxwood, Cotoneaster, Crabapple, Euonymus, Fir, Firethorn, Forsythia, Hawthorn, Hemlock, Hickory, Honey Locust, Horse Chestnut, Juniper, Larch, Laurel, Lilac, Linden, Mimosa, Myrtle, Oak, Pine, Privet, Tulip Tree, Viburnum, Willow.

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#### USE ON GREENHOUSE FRUIT, VEGETABLE, FLOWER AND FOLIAGE PLANTS:

Combine 16 to 32 fluid ounces with 100 gallons of water for applications with conventional sprayers or 7 to 15 ml. (1/4 to 1/2 of a fluid ounce) per gallon of water for applications with handheld or backpack sprayers.

#### FOR USE OUTDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS:

Combine 16 to 32 fluid ounces of PyGanic® Crop Protection EC 5.0<sub>g</sub> with 100 gallons of water for applications with conventional sprayers or 16 to 32 fluid ounces of PyGanic® Crop Protection EC 5.0<sub>g</sub> with 10 gallons of water for applications with low volume mist blowers or 7 to 15 ml. (1/4 to 1/2 of a fluid ounce) per gallon water for applications with handheld or backpack sprayers.

**FOR USE ON AND AROUND LISTED OUTDOOR AREAS:** To kill insects on Turf, Ornamental Plants, Gardens, Landscaping, Foundation Walls and Perimeters mix 7 to 15 ml. (1/4 to 1/2 of a fluid ounce) of PyGanic® Crop Protection EC 5.0<sub>g</sub> per gallon of water for applications with compressed air sprayers or pump driven sprayers.

**FOR USE IN VEGETABLE AND TRUCK GARDENS:** For commercial production of listed crops to kill listed insects dilute 7 to 15 ml. of PyGanic® Crop Protection EC 5.0<sub>g</sub> per gallon of water. Apply diluted solution with all types of agricultural sprayers, including compressed air sprayers or pump driven sprayers.

**USE INDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS:** Combine 16 to 32 fluid ounces of PyGanic® Crop Protection EC 5.0<sub>g</sub> with 100 gallons of water for applications with conventional sprayers or 7 to 15 ml. (1/4 to 1/2 of a fluid ounce) of PyGanic® Crop Protection EC 5.0<sub>g</sub> per gallon of water for applications with handheld or backpack sprayers.

**USE WITH HYDROPONICALLY GROWN VEGETABLES AND ORNAMENTALS**

**AS A WATER SYSTEM TREATMENT:** To kill aquatic Diptera larvae, apply PyGanic® Crop Protection EC 5.0<sub>II</sub> to the water at the rates outlined in the following table:

Pyrethrins concentration	ml. of PyGanic® Crop Protection EC 5.0 <sub>II</sub>	Gallons of water
0.1 ppm	80.0	10,000
0.01 ppm	8.0	10,000
0.001 ppm	0.8	10,000

**\*FOR USE ON HARVESTED FRUITS AND VEGETABLES:** Apples, Blackberries, Blueberries, Boysenberries, Cherries, Crabapples, Currants, Dewberries, Figs, Gooseberries, Grapes, Guavas, Loganberries, Mangoes, Muskmelons, Oranges, Peaches, Pears, Peas, Pineapples, Plums, Raspberries, Tomatoes.

**\*DIRECT SPRAY TO FRUITS IN BASKETS, ON TRUCKS OR IN PROCESSING**

**PLANTS:** To kill Drosophila spp., Tephritid spp., Fruit Flies, Vinegar Flies and other nuisance pests, dilute this concentrate at the rate of 1 part with 900 parts water (1 pint with 125 gallons of water or 5 ml. with 10 pints of water). Thoroughly mix the emulsion in the spray tank and treat as follows:

- 1) Apply liberally to fruits and vegetables in baskets, on trucks and in plants. Use sprayers at a high pressure for applying at the rate of five or six pints of diluted spray to a 2-ton load of produce. Direct the spray for maximum coverage of the baskets or hampers. It is important to spray between and beneath the containers.
- 2) Spray the raw stock stacked in the yard.
- 3) Dip baskets in the diluted spray, after dumping the produce to kill adhering larvae and pupae.

**\*NOT REGISTERED FOR THIS USE IN THE STATE OF CALIFORNIA**

**GENERAL USE DIRECTIONS FOR INDOOR APPLICATIONS**

Remove pets and birds and cover fish aquariums before spraying.

Kills only at time of application. Listed insect pests must be directly contacted to be effective.

Do not apply in institutions (including libraries, schools, sports facilities, etc.) in the immediate area where occupants are present. Do not apply to classrooms while in use. Vacate rooms prior to treatment. If application is done as a surface spray, occupants may re-enter once the spray has dried. If application is done as a space spray, rooms should be ventilated for two hours after spraying. Do not allow occupants to enter room until after ventilation.

**FOOD AREA USE:** Avoid contamination of food or feedstuffs. Do not apply directly to food. Do not apply space spray while food processing is underway. Foods should be removed or covered during treatment. All food processing surfaces and equipment should be covered or washed with an effective cleaning compound followed by a potable water rinse. In the home all food processing surfaces, dishes and utensils should be covered during treatment or thoroughly washed before use.

**USE AS A SURFACE SPRAY IN LISTED INDOOR AREAS:** To kill accessible, exposed stages of listed crawling insects, dilute 1 to 3 fluid ounces of concentrate with one gallon of water, mix well and apply as a coarse wetting spray at the rate of 1 gallon of spray mixture per 750 square feet of surface. To ensure maximum kill of listed crawling insects, spray thoroughly into all cracks, moldings, crevices, walls, floors and surfaces of bins, storage and handling areas. Particular attention should be paid to areas where moisture collects such as drains, sinks, and water pipes and around the base of heavy machinery and equipment, contacting as many insects as possible. To kill ANTS (excluding fire and Pharaoh ants), spray directly into nests, along trails, and directly on all ants observed.

Except in Federally inspected meat and poultry plants, food processing operations may continue when this product is applied as a surface spray with care and in accordance with the directions and precautions given above.

**FOR FEDERALLY INSPECTED MEAT AND POULTRY PROCESSING FACILITIES:**

To kill accessible, exposed stages of listed crawling insects, dilute 9 fluid ounces with one gallon of water and apply at the rate of 1 gallon to 750 square feet, paying special attention to force the spray into all cracks and crevices.

**DILUTION TABLE FOR SURFACE SPRAY**

Fluid ounces of concentrate per gallon of solution	Pounds of pyrethrum per gallon of solution	Percent pyrethrins in solution
1	0.0032	0.039%
2	0.0064	0.078%
3	0.0096	0.118%
4	0.0128	0.159%
5	0.0160	0.200%
6	0.0192	0.242%
7	0.0224	0.284%
8	0.0256	0.328%
12	0.038	0.508%
16	0.051	0.702%
22	0.070	1.020%

**SPACE SPRAY IN FOOD AND NONFOOD AREAS OF LISTED INDOOR AREAS:**

For use in mechanical fogging or spraying equipment to kill accessible stages of listed FLYING AND CRAWLING INSECTS. Close room and shut off all air conditioners or ventilating equipment. Dilute at the rate of 1 part concentrate into 1 to 8 parts water (see table below) and mix well. Apply at the rate of 1 fluid ounce of diluted solution per 1,000 cubic feet of space, filling the room with mist. Direct the space treatment upward and whenever practical, keep doors and windows closed for at least 30 minutes after application. Vacate treated area and ventilate before re-entry.

This concentrate may also be diluted with oil. If the product is used in a certified organic facility, check with certification regulations regarding allowed oils. Any oil

should also meet Federal Food Additive Regulation requirements as defined by CFR Title 21. Conduct a small jar compatibility test by mixing a small amount of oil and concentrate and observe the physical compatibility of the mixture. Dilute at the rate of 1 part of concentrate with up to 8 parts oil. Apply at the rate of 1 fluid ounce of diluted solution per 1,000 cubic feet of space.

When this product is applied as a space spray in food processing or food handling establishment applications should be confined to time periods when the plant is not in operation.

**DILUTION TABLE FOR ULV FOGGERS**

Dilution ratio		Fluid ounces of concentrate per ounce of solution volume	Fluid ounces of water per ounce of solution volume	Pounds of pyrethrum per 1,000 cu. ft. when applied at 1 fl. oz. per 1,000 cu. ft.	Percent of pyrethrins in solution
Concentrate	Water				
Undiluted		1.00	0.00	0.0032	5.00%
1	1	0.50	0.50	0.0016	2.47%
1	2	0.33	0.67	0.0011	1.65%
1	3	0.25	0.75	0.00101	1.23%
1	4	0.20	0.80	0.00064	0.99%
1	8	0.11	0.89	0.00035	0.547%



**\*FOR USE ON SWEET POTATOES IN STORAGE:** To kill Fruit Flies and Vinegar Flies, dilute this concentrate at 1 part to 14 parts water (9 fluid ounces with one gallon of water). Apply as a space fog with a mechanical fogger capable of producing particles of aerosol size at the rate of 1 gallon diluted spray per 100,000 cubic feet of space. Apply only when flying insects are present. Several applications may be necessary during periods of heavy infestation, but do not make more than 10 applications.

**\*FOR USE ON STORED PRODUCTS:** The product can be used to kill accessible stages of listed insects on the following stored commodities: Almond Nutmeat and Shells, Barley, Beans, Birdseed, Buckwheat, Cocoa Beans, Corn, Cottonseed, Dried Apricots, Dried Fruit, Dried Prunes, Figs, Flax, Grain Nuts, Oats, Peanut, Pistachio, Raisins, Rice, Rye, Sorghum, Tobacco, Wheat, and Walnut Nutmeat and Shells held in storage.

**\*DRIED FRUIT PRODUCTS IN STORAGE OR BEING PROCESSED:** To kill the following stored product pests: Dried Fruit Beetle and Saw-toothed Grain Beetle. Remove and destroy infested products. Dilute concentrate at the rate of 1 part concentrate to 8 parts water and mix well. Disperse the solution as a fine mist in the air above the trays and shelves. Do not apply to fruit directly. If the solution is applied as a space spray, use one ounce diluted spray per 1,000 cubic feet of space. Repeat application at this dosage in any given month. Leave the room closed for one hour. Do not remain in treated areas and ventilate the area before re-entry. Sweep up and destroy fallen insects.

**\*ON ALMONDS, PEANUTS, PISTACHIOS AND WALNUTS IN BULK OR IN BAGS:** To kill the following stored product insects: Almond Moths, Angoumois Grain Moths, Ants, Cadelles, Cigarette Beetles, Confused Flour Beetles, Drugstore Beetles, Flat Grain Beetles, Granary Weevils, Indian Meal Moths, Lesser Grain Borers, Maize Weevils, Mediterranean Flour Moths, Merchant Grain Beetles, Red Flour Beetles, Rice Weevils, Rusty Grain Beetles, Saw-toothed Grain Beetles and Square-necked Grain Beetles, dilute 2.0 fluid ounces of PyGanic® Crop Protection EC 5.0, per gallon of water and apply as a coarse wet spray over the top of stored nuts or the outside surface of stacked bagged nuts at the rate of 4 gallons per 1,000 square feet. Apply at weekly intervals for about 6 weeks and then at 15-day intervals. The first two applications should be applied at the rate of 4 gallons per 1,000 square feet and subsequent treatments should be applied at the rate of 2 gallons per 1,000 square feet.

**\*TREATMENT OF STORED GRAIN AND SEED AREAS:** For best results to kill stored product pests in grain and seed storage areas and stored grain and seed, treat the area when it is empty of product, as a protectant applied as commodity is put into storage, and as a surface spray once it is in storage.

**FOR USE IN STORAGE SITES:** This concentrate can be used to treat grain and seed in warehouse bins and trucks, cargo ships, mills, bin hoppers, elevators and conveying equipment as a cleanup prior to using them for storage. In mills and elevators, all grain-infested accumulations should be removed from the bin hoppers. All storage areas and conveying equipment should be thoroughly cleaned by sweeping out the waste grain, cobwebs and other debris from the walls and rafters as well as on the floor and door frames with special attention to material lodged in the cracks and crevices. All debris should be removed and burned to kill eggs and insects that might be present.

For farms, particular attention should be given to cleaning up around the used feed and grain bags, grain residues from wagons, harvesting equipment and feed troughs. Newly harvested grain should not be placed in the same bin with carry-over grain, and all carry-over grain stocks that are not treated with grain protectant should be fumigated. These cleaning operations should be done within two or three weeks before harvest.

After above sanitation measures have been employed, spray all areas prior to use for storage with 1 part to 22 parts water (6 fluid ounces with one gallon of water) up to 1 part to 8 parts (1 pint with one gallon of water). Apply at the rate of one gallon per 750 square feet on walls, floors, ceilings and partition boards of bins, paying particular attention to forcing the spray into all cracks and crevices.

**\*FOR USE AS A GRAIN PROTECTANT:** This concentrate when diluted with water and sprayed directly on grains will effectively protect the grain against grain storage insects for a full season or approximately 8 months. Dilute at the rate of 1 part to

22 parts water (6 fluid ounces with one gallon of water). Thoroughly mix the emulsion and apply at the rate of 5 gallons per 1,000 bushels of grain as it is carried along a belt or as it enters the auger or elevator. This concentrate may be used in combination with a registered fumigant for use on heavily infested stored products.

Monthly inspections should be made. If the top 2 or 3 inches are infested, re-treat applying at the rate of 2 gallons of diluted material per 1,000 bushels of stored product.

**\*SURFACE TREATMENT OF STORED GRAIN AND SEED:** To kill Indian Meal Moths, Angoumois Grain Moths and Mediterranean Flour Moths, monthly inspections should be made after the grain is placed in storage. If the top two or three inches are infested, dilute 1 part PyGanic® Crop Protection EC 5.0, with 14 parts of water and apply at the rate of 2 gallons per 1,000 square feet of grain. Rake the mixture into the grain to a depth of 4 inches.

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## FOR USE ON LISTED ANIMALS

- 1) To kill and repel Horn Flies, House Flies and Gnats, dilute at the rate of 1.5 to 3 fluid ounces per gallon of water and apply to wet hair thoroughly, paying particular attention to topline, underline, flanks, withers and other infested areas. Repeat treatment at intervals of 5 to 12 days for small insect populations or as needed when flies are emerging in large numbers.
- 2) To kill and repel Stable Flies, dilute at the rate of 2.5 to 4 fluid ounces per gallon of water and apply at a quart per adult animal to wet hair thoroughly, paying particular attention to legs, flanks, barrel, topline and other body areas commonly attacked by these flies. Repeat treatment each week as needed.
- 3) To kill and repel Face Flies dilute at the rate of 2.5 fluid ounces per gallon of water and apply using spray which produces large wetting droplets. Apply to face of animal in the morning before releasing to pasture. Apply sufficiently to wet the face but not more than 1-1/2 ounces of spray solution per animal. Repeat daily as needed.
- 4) To kill Biting and Sucking Lice on livestock, dilute at the rate of 1 quart with 60 gallons of water (1.5 fluid ounces with 2 gallons) and spray to thoroughly wet hair of animal, including the head and brush of the tail. Repeat treatment in 10 days to kill newly hatched lice.
- 5) To kill Poultry Lice, using a dilution of 2.5 to 4 fluid ounces of concentrate per gallon of water. Spray roosts, walls and nests or cages thoroughly. It is not necessary to remove poultry from the housing unit during treatment. This should be followed by spraying over the birds with a fine mist.
- 6) To kill Mites on poultry and in poultry houses, dilute at the rate of 2.5 to 4 fluid ounces per gallon of water and spray crevices of roost poles, cracks in walls and cracks in nests where the mites hide. This should be followed by spraying over the birds with a fine mist.
- 7) To kill Sheep "tick" or ked, dilute at the rate of 1.5 to 3 fluid ounces per 4 gallons of water and thoroughly wet all portions of the body by dipping or spraying with sufficient pressure and with a nozzle adjustment to give penetration of the wool. Treat at a rate sufficient to wet the animal.
- 8) To kill Fleas and Brown Dog Ticks on livestock and to obtain protection against reinfestation, dilute at the rate of 9 fluid ounces per gallon of water and wet the animal by dipping or spraying. This product may also be used for livestock/pet quarters. Do not spray pets. For best results against Fleas and Brown Dog Ticks on dogs and cats the kennels and/or animal quarters and bedding should be treated. Remove and destroy pet's old bedding. To reduce infestation, thoroughly spray the animal's bedding and sleeping quarters. Also spray the entire inside surface of dog houses. Put fresh bedding in pet's quarters after spray has dried. Also treat dogs and cats [pets] with a registered flea and tick control product before allowing them to reenter treated area.

\*NOT REGISTERED FOR THIS USE IN THE STATE OF CALIFORNIA

9) To kill adult Darkling Beetle (lesser meal worm) in poultry houses, dilute 2.0 to 5.0 teaspoons (10 to 25 ml.) of PyGanic® Crop Protection EC 5.0, per gallon of water. Using a power or proportioner-type sprayer, apply a uniform spray until wet at pressures of 80 to 100 pounds per square inch to surfaces such as interior walls, roosting posts, structural support pillars, and other surfaces where adult beetles are observed. One gallon of spray mixture covers 250 to 500 square feet. Do not contaminate food/feed or water. For maximum effectiveness, treatments should coincide with each growout or sanitation procedure. Indoor control can be enhanced by making perimeter treatments around the outside of buildings. To prevent immigrating adult beetles, apply a uniform band of spray 2 feet up and 1 to 4 feet out from the foundation.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry place. Keep container closed.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other approved state and local procedures.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using toilet. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers must wear: coveralls over short-sleeved shirt and short pants; chemical-resistant gloves, such as, Barrier Lamine, Nitrile Rubber, Neoprene Rubber, or Viton; chemical-resistant footwear plus socks; chemical-resistant headgear for overhead exposure; chemical-resistant apron when cleaning equipment, mixing, or loading.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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



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EPA Reg. No. 1021-1772

## FOR USE IN BARN, DAIRIES, MILKING PARLORS, MILKING ROOMS AND POULTRY

**HOUSES:** To kill the following flying insects: Flies, Fruit Flies, Gnats and Small Flying Moths, dilute at the rate of 2.5 fluid ounces per gallon of water. Apply as a fog or fine mist (at approximately 2 fluid ounces per 1,000 cubic feet of space), directing the nozzle for maximum coverage and above livestock and poultry toward the ceiling and upper corners of the area being treated. For best results, close doors and windows before spraying, and keep them closed for 10 to 15 minutes. Applicator should vacate the treated area and ventilate it prior to returning. Sweep up and destroy fallen insects.

#### User Safety Recommendations:

Users should: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

#### ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to fish. 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. Drift from treated areas may be hazardous to organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## KEEP OUT OF REACH OF CHILDREN

### CAUTION

### FIRST AID

#### IF SWALLOWED:

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

#### IF IN EYES:

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

#### IF ON SKIN OR CLOTHING:

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-740-8712 for emergency medical treatment information.