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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

February 7, 2005

Ms. Julie B. Schlekau  
McLaughlin Gormley King Company  
8810 Tenth Avenue North  
Minneapolis, MN 55427

SUBJECT: Submission of an amendment in accordance with PR Notice 2003-1 and inclusion of the OMRI listed logo.  
EPA Reg. No. 1021-1771  
Product Name: PyGanic Crop Protection EC 1.4  
Date of submission: Original Submission date October 23, 2003, Resubmission date January 5, 2005

Dear Ms. Schlekau,

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable subject to the comments listed below. Five copies of the finished labeling must be submitted prior to releasing the product for shipment.

1. On page 5 delete the sentence "It not only kills the flies, but the emulsion loosens any dead flies so they are readily washed from the fruit." This statement promotes misuse, and is not directly linked to use as a pesticidal product.

2. The section "FOR USE AROUND HOMES AND OTHER BUILDINGS: Use this concentrate at 1 part to 13 parts water (10 fl. oz. with one gallon of water) to control insects in Turf, Ornamental Plants, Gardens, Landscaping, Foundation Walls and Perimeters." needs to be moved since the immediate header above is for an insecticide in hydroponically grown vegetables and ornamentals, and the section immediately below is for use on harvested fruits and vegetables. This section should be moved to the section below "FOR USE OUTDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS" In addition within this moved section, the following corrections should be made or revised accordingly:

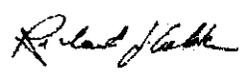
- Within the section heading entitled "FOR USE AROUND HOMES AND OTHER BUILDINGS" change the heading to "FOR USE AROUND **THE EXTERIOR OF HOMES AND OTHER BUILDINGS.**",
- the sentence " Use this concentrate at 1 part to 13 parts water (10 fl. oz. with one gallon of water) to control insects **in** Turf, Ornamental Plants, Gardens, Landscaping, Foundation Walls and Perimeters." Revise the word "in" to "on.",
- the application rate difference between 3.5 and 7 pints/100 gallons of water (for use outdoors on trees, shrubs, flowers and foliage plants), and the 1 part to 13 parts water (10 gl. oz. /gallon) for use on landscaping, gardens and ornamental plants." needs to be clarified. There is an

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- application rate difference. between these 2 sections with similar sites,  
and the method of application and pests within the "FOR USE AROUND HOMES AND OTHER BUILDINGS" subsection are not identified.

If you have any questions, you may contact Richard J. Gebken, at (703) 305-6701.

Sincerely,



Richard J. Gebken  
Acting Product Manager 10  
Insecticide Branch  
Registration Division (7505C)

enclosure



McLaughlin  
Gormley King  
Company

PyGanic® Crop Protection EC 1.4 II

For Organic Production



8810 Tenth Avenue N. / Minneapolis, Minnesota 55427-4372 U.S.A.

TELEPHONE (763-544-0341)

- For use in Restaurants
- For use on Livestock
- For indoor and outdoor uses
- Controls key livestock pests
- For Barns, Dairies and Poultry Houses
- For use in food storage and processing facilities
- For use on growing crops and ornamentals
- This product can be sprayed at any season of the year
- Flushes insects & mites from hiding
- Provides rapid knockdown & kill of plant pests
- Contains pyrethrum – a botanical insecticide derived from chrysanthemums
- For use on over 200 fruits and vegetables
- Can be tank mixed with other insect control products
- Non-persistent in the environment
- Can be used on day of harvest
- Non-flammable
- Controls more than 100 insects
- One gallon of product treats up to 8 acres
- Low odor
- Non-corrosive to spray equipment

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
FEB 7 2005

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
1021-1771

ACTIVE INGREDIENT:

Pyrethrins .....	1.40%
OTHER INGREDIENTS .....	98.60%
	100.00%

PYGANIC® - Registered trademark of McLaughlin Gormley King Co.

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)

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
IF IN EYES:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED:	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call the International Poison Center at 1-888-740-8712.</p>	

PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION**

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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**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: Long-sleeved shirt and long pants; Chemical-resistant gloves, such as, Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton; Shoes plus socks.

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.

**User Safety Recommendations:**

Users should:

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

**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.

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

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR, Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), 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;
- Chemical-resistant gloves, such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton;
- Shoes plus socks.

**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.

**FOR THE CONTROL OF INSECTS:** Including, but not limited to: Ants, Aphids, Apple Maggot, Armyworms, Artichoke Plume Moth, Asparagus Beetle, Beet Armyworm, Bagworm, Bean Beetles, Beetles, Blister Beetles, Blow Flies, Biting Flies, Boll Weevil, Cabbage Looper, Cankerworms, Carrot Weevil, Caterpillars, Clover Mite, Clover Weevil, Cockroaches, 12-spotted Cucumber Beetle, Codling Moth, Colorado Potato Beetles, Crickets, Crane Flies, Crickets, Cross-striped Cabbageworm, Cucumber Beetles, Darkling Beetles (lesser meal worm), Deer Fly, Deer Tick, Earwigs, Diamondback Larvae, Eastern Tent Caterpillar, Elm Leaf Beetle, European Corn Borer, European Pine Tip Moth, Face Fly, Fall Webworm, Fire Ants, Firebrats, Fireworms, Flea Beetles, Flies, Forest Tent Caterpillar, Fungus Gnats, Fruit Flies, Fruitree Leafroller, Glassy Winged Sharpshooter, Grape Leafhopper, Grape Leaf Skeletonizer, Green Fruit Worm, Green Peach Aphids, Greenhouse Thrips, Gypsy Moth (adults & larvae), Harlequin Bug, Heliothis sp., Hornets, Horn Fly, Hornworm, Horse Fly, House Fly, Imported Cabbageworm, Indian Meal Moth, Imported Cabbageworm, Japanese Beetle, Katydid, Lace Bugs, Leafhopper, Leafrollers, Leafhoppers, Lice, Loopers, Lygus, Mealy Bugs, Mediterranean Flour Moth, Mexican Bean Beetle, Midges, Millipedes, Mosquitoes, Mushroom Flies, Navel Orangeworm, Onion Maggot, Pear Psylla, Potato Leafhopper, Psyllids, Rice Weevil, Saw Toothed Grain Beetle, Scale, Silverfish, Skippers, Sowbugs, Stable Fly, Stink Bugs, Spiders, Stable Fly, Stink Bugs, Tabanidae, Tarnished Plant Bug, Thrips, Tomato Hornworm, Vinegar Flies, Wasps, Webworms, Whiteflies and Yellowjackets.

**USED ALONE:** Apply 16 ounces (1 pint) to 64 ounces (2 quarts) per acre by ground in sufficient water for thorough coverage. This product may be applied by air at the rate of 16 to 64 ounces per acre in a minimum of 5 gallons of water. Mix only enough for immediate use. Spraying should begin when the insects first appear. Do not wait until the plants are heavily infested. Repeat as required to maintain effective control. It is recommended that the final spray mix be buffered to a pH of 5.5-7.0.

To avoid possible harm to honey bees, it is advisable to apply in the early morning or late evening hours.

**USED AS A 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 1.4<sub>II</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 1.4<sub>II</sub>, or tank mix combinations, treat a limited number of plants and observe for phytotoxicity over a 10 day period.

**USE THROUGH IRRIGATION SYSTEMS (CHEMIGATION):** Refer to supplemental labeling entitled "DIRECTIONS FOR APPLICATION THROUGH IRRIGATION SYSTEMS" (available through your distributor) for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on the chemigation is followed.

#### **GROWING CROPS (OUTDOORS AND IN GREENHOUSES):**

PyGanic® Crop Protection EC 1.4<sub>II</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, but not limited to," and then lists a number of crops in each group. This wording allows the use of PyGanic® Crop Protection EC 1.4<sub>II</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, but not limited to: 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, Parsnip (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, but not limited to: 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, but not limited to: Garlic, Great-headed Garlic, Leek, Onion (bulb and green), Welch, Shallot.

**LEAFY VEGETABLES:** Including, but not limited to: Amaranth (Leafy Amaranth, Chinese Spinach, Tampala), Arugula, Cardoon, Celery, Chinese Celery, Celuice, Chervil, Cilantro, Corn Salad, Chrysanthemum (edible-leaved), Chrysanthemum (garden), Cress (garden, water), Upland Cress (yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Fennel (Florence), Lettuce (head and leafy), Orach, Parsley, Purslane (garden & winter), Radicchio, Rhubarb, Spinach, Fine Spinach (Malabar, Ceylon), Spinach (New Zealand), Swiss Chard.

**BRASSICA (COLE) LEAFY VEGETABLES:** Including, but not limited to: Broccoli, Chinese Broccoli (Gai Lon), Broccoli raab (Rapini), Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens.

**LEGUME VEGETABLES (SUCCULENT OR DRIED):** Including, but not limited to: 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, Yard Longbeans, Broad Beans, (Fava Beans), Chick Peas (Garbanzo Beans), Guar, Jackbean (Sword Bean), Lablab Bean (Hyacinth Bean), Lentils, Peas (Garden Peas, Field Peas, Sugar Snap Peas, English Pea, Snow Pea), Pigeon Peas, Soybeans, Sweet Lupin Beans, White Lupin Beans, White Sweet Lupin, Sword Bean.

**FOLIAGE OF LEGUME VEGETABLES:** Including, but not limited to: 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, but not limited to: Eggplant, Ground Cherry, Okra, Pepinos, Pepper (Bell Pepper, Chili Pepper, Cooking Peppers, Pimentos, Sweet Peppers), Tomatillo, Tomatoes.

**CUCURBIT VEGETABLES:** Including, but not limited to: 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, Crenshaw, Golden Pershaw Melon, Honeydew Melons, Honey Balls, Mango Melon, Muskmelon, Persian Melon, Pineapple Melon, Santa Claus Melon, Snake Melon), Pumpkin, Squash (summer & winter), Watermelon (including hybrids).

**CITRUS FRUITS:** Including, but not limited to: Calamondin, Citrus Citron, Citrus Hybrids, Grapefruit, Kumquats, Lemons, Limes, Mandarin (Tangerine), Orange (sweet & sour), Pummelo, Satsuma Mandarin, (Citrus spp. Includes Chironja, Tangelos, Tangors).

**POME FRUITS:** Including, but not limited to: Apple, Crabapple, Loquat, Pear, Mayhaw, Oriental Pear, Quince.

**STONE FRUITS:** Including, but not limited to: Apricot, Cherry (sweet & sour), Nectarine, Peach, Plum, Prune, Chickasaw Plum, Damson Plum, Japanese Plum, Plumcot.

**SMALL FRUITS AND BERRIES:** Including, but not limited to: Blackberry, Blueberry, Cranberry, Currant, Dewberry, Elderberry, Gooseberry, Grape, Huckleberry, Loganberry, Ofallie Berry, Raspberry (black & red), Strawberry, Youngberry.

**TREE NUTS:** Including, but not limited to: Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia Nut (Bush Nut), Pecan, Pistachio, Walnut, Black and English (Persian).

**ORIENTAL VEGETABLES:** Including, but not limited to: Acerola, Atemoya, 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, but not limited to: Avocado, Banana, Carob, Barbados Cherry, Cherimoya, Dates, Durian (Jackfruit), Feijoa, Figs, Guava, Kiwifruit, Lychee, Mango, Papaya, Passion Fruit, Persimmon, Pineapple, Pomegranate.

**CEREAL GRAINS:** Including, but not limited to: 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, but not limited to: barley; buckwheat; corn (sweet and field); millet; proso; oats; pear; popcorn; rice; rye; sorghum (milo); teosine; triticale; wheat; wild rice.

**GRASSES FOR SEED, FORAGE, FODDER AND HAY** Including, but not limited to: any grass (Gramineal family, (green or cured), except sugarcane and those listed in the cereal grains group) that will be fed to or grazed by livestock, all Pasture and Range Grasses and Grasses grown for hay and silage, Bermuda Grass, Bluegrass, Bromegrass, Fescue.

**NON-GRASS ANIMAL FEEDS:** Including, but not limited to: Alfalfa, Velvet Bean, Clover, Kudzue, Lespedeza, Lupine, Sainfoin, Trefoil, Crown Vetch, Milk Vetch.

**HERBS AND SPICES:** Including, but not limited to: 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), Gumin, Curry (leaf), Dill (dillweed), Dill (seed), Fennel (common), Fennel [Florence] (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, but not limited to: Artichoke, Asparagus, Avocado, Coffee, Cotton, Hops, Jojoba, Mushroom, Okra, Olives, Peanuts, Pineapple, Rice, Safflowers, Sesame, Sugar Cane, Sunflower, Tea.

**FOR CONTROL OF ANTS ON ORCHARD FLOORS:** Apply as a broadcast spray to the entire orchard floor using ground spray equipment at 5 to 18 fl. oz. 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 floor. Mow or chemically control weeds before the application. Foliar applications of PyGanic® Crop Protection EC 1.4<sub>ii</sub> may be made in addition to the orchard floor treatment.

**ORNAMENTALS:** Including, but not limited to: African Violet, Ageratum, Aster, Azalea, Begonia, Calceolaria, Calendula, Calla, Camellia, Carnation, Ceanothus, Cineraria, Chrysanthemum, Coleus, 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.

**USE ON GREENHOUSE FRUIT, VEGETABLE, FLOWER AND FOLIAGE PLANTS:** Used alone: Combine 16 ounces (1 pint) to 32 ounces (1 quart) with 30 gallons of water for applications with conventional hydraulic sprayers or 1 to 2 ounces per gallon of water for applications with compressed sprayers.

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

Used alone: Combine 3.5 to 7 pints of PyGanic® Crop Protection EC 1.4<sub>ii</sub> with 100 gallons of water for applications with conventional hydraulic and airblast sprayers or 3.5 to 7 pints of PyGanic® Crop Protection EC 1.4<sub>ii</sub> with 10 gallons of water for applications with low volume mist blowers or 1 to 2 fl. oz. per gallon water for applications with compressed air sprayers.

**USE INDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS:**

**USED ALONE:** Combine 3.5 to 7 pints of PyGanic® Crop Protection EC 1.4<sub>ii</sub> with 100 gallons of water for applications with conventional hydraulic sprayers or 1 to 2 fl. oz. of PyGanic® Crop Protection EC 1.4<sub>ii</sub> per gallon of water for applications with compressed air sprayers.

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**USE WITH HYDROPONICALLY GROWN VEGETABLES AND ORNAMENTALS**

**AS A WATER SYSTEM TREATMENT:** To control aquatic diptera larvae, apply PyGanic® Crop Protection EC 1.4<sub>II</sub> to the water at the rates outlined in the following table:

<u>Pyrethrins Concentration</u>	<u>ml of PyGanic® Crop Protection EC 1.4<sub>II</sub></u>	<u>Gallons of Water</u>
0.1 ppm	286	10,000
0.01 ppm	28.6	10,000
0.001 ppm	2.86	10,000

**FOR USE AROUND HOMES AND OTHER BUILDINGS:** Use this concentrate at 1 part to 13 parts water (10 fl. oz. with one gallon of water) to control insects in turf, Ornamental Plants, Gardens, Landscaping, Foundation Walls and Perimeters.

**FOR USE ON HARVESTED FRUITS AND VEGETABLES:** Including 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 control Drosophila spp., Tephritid spp. fruit flies, Vinegar Flies and other nuisance pests dilute this concentrate at the rate of 1 part with 250 parts water (1 pint with 32 gallons or 1 teaspoon with 2.5 pints 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. It not only kills the flies, but the emulsion loosens any dead flies so they are readily washed from the fruit.
- 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.

**FOR USE IN CANNERIES:** The entire space inside of the cannery should be sprayed after washing and cleaning up and just before bringing produce into it, with this product diluted 1 part to 2 parts of water (2 quarts with one gallon of water). Use 1 gallon of the spray per 750 square feet, directing it on walls, ceiling, and floors paying special attention to forcing the spray into all cracks and crevices for the control of ants, roaches, silverfish, crickets, spiders and cheese mites. This same dilution used as a space spray will give excellent control of fruit flies, house flies, hornets, grain moths, gnats, mosquitoes, and skipper flies. Use one ounce diluted spray per 1000 cubic feet of space. Do not spray while the plant is in operation as dead flies may fall into containers or the products being processed.

**AS A SPACE SPRAY IN FOOD AND NONFOOD AREAS OF FOOD PROCESSING PLANTS, INDUSTRIAL INSTALLATION, BAKERIES, RICE AND WHEAT MILLS, RESTAURANTS, TOBACCO WAREHOUSE, GRAIN ELEVATORS, HOMES, RESTAURANTS SUPERMARKETS, WAREHOUSES AND WINERIES:** To kill flying insects such as fruit flies, house flies, hornets, wasps, grain moths, gnats, mosquitoes and skipper flies, dilute this concentrate at the rate of 1 part to 2 parts water (2 quarts with one gallon of water). Use at the rate of 1 oz. of diluted spray per 1000 cubic feet of space. Direct the space treatment upward and whenever practical, keep doors and windows closed for at least 30 minutes after application. The use of this product in food processing or food handling establishments should be confined to time periods when the plant is not in operation. Food should be removed or covered during treatments. All food processing surfaces should be covered during treatment or thoroughly cleaned before use.

**CRAWLING AND FLYING INSECTS:** For control of accessible, exposed stages of CRAWLING INSECTS including but not limited to, Ants, Cockroaches, Caddisflies, Cigarette Beetles, Confused Flour Beetles, Dark Mealworms, Dried Fruit Beetles, Drugstore Beetles, Grain Mites, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Spider Beetles, Yellow Mealworms and FLYING INSECTS including, but not limited to, Angoumois grain Moths, Cheese Skippers, Fruit Flies, Fungus Gnats, Gnats, House Flies, Indian Meal Moths, Mosquitoes, Mediterranean Flour Moths, Small Flying Moths, Tobacco Moths, dilute 1 part of PyGanic® Crop Protection EC 1.4<sub>II</sub> with 2 parts of water or oil (2 quarts with one gallon of water or oil) and apply at the rate of 1 ounce per 1,000 cubic feet of space. Direct the spray towards the ceiling and upper corners of the area and behind obstructions. Vacate the treated area and keep the area closed for at least 30 minutes after treatment. Ventilate the area before reoccupying.

**USE AS A SURFACE SPRAY IN HOMES, RESTAURANTS, FOOD PROCESSING PLANTS, INDUSTRIAL INSTALLATIONS, SUPERMARKETS, WAREHOUSES AND WINERIES:** to control accessible, exposed stages of crawling insects including, but not limited to, Ants, Cockroaches, Caddisflies, Cigarette Beetles, Confused Flour Beetles, Dark Mealworms, Dried Fruit Beetles, Drugstore Beetles, Grain Mites, Red Flour Beetles, Rice Weevils, Sawtoothed Grain Beetles, Spider Beetles, Yellow Mealworms, dilute 1 part PyGanic® Crop Protection EC 1.4<sub>II</sub> with 12 parts water (11 fl. oz. 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.

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 USDA INSPECTED FACILITIES:** To control accessible, exposed stages of crawling insects including, but not limited to, ants, cockroaches, caddisflies, cigarette beetles, confused flour beetles, dark mealworms, dried fruit beetles, drugstore beetles, grain mites, red flour beetles, rice weevils, sawtoothed grain beetles, spider beetles, yellow mealworms, dilute 1 part PyGanic® Crop Protection EC 1.4<sub>II</sub> with 4 parts of water (1 quart 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.

**FOR USE ON SWEET POTATOES IN STORAGE:** For control of Fruit Flies and Vinegar Flies dilute this concentrate at 1 part to 4 parts water (1 quart with one gallon of carrier). 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 period of heavy infestation, but do not make more than 10 applications

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**FOR USE ON STORED PRODUCTS:** This concentrate can be used at the rate of 1 part to 2 parts water or acceptable carrier (2 quarts with one gallon of water or acceptable carrier) can be used on rice, barley, beans, birdseed, buckwheat, cocoa beans, corn, cottonseed, flax, oats, grain nuts, dried fruit, almond nutmeat and shells, walnut nutmeat and shells, pistachio, dried prunes, dried apricots, raisins, figs, wheat, oats, corn, barley, rye, sorghum, wheat, tobacco and peanuts held in storage for control of the accessible stages of Almond Moths, Angoumois Grain Moths, Cadelle Beetles, Cigarette Beetle, Confused Flour Beetles, Flat Grain Beetles, Granary Weevils, Indian Meal Moths, Red Flour Beetles, Rice Weevils, Rusty Grain Beetles, Sawtoothed Grain Beetles, Square Necked Grain Beetles, and Tobacco Moths.

**SURFACE TREATMENT OF STORED GRAIN AND SEED:** To control Indian Meal Moths, Angoumois Grain Moths and Mediterranean Flour Moth, 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 1.4<sub>H</sub> with 4 parts of water (1 quart with one gallon 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.

**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 6 parts water (1.3 pints with 1.0 gallon of water). Thoroughly mix the emulsion and apply at the rate of 5 gallons per 1000 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 found to be infested, re-treat applying at the rate of 1 to 2 gallons of diluted material per 1000 bushels of stored product.

**ON ALMONDS, PEANUTS AND WALNUTS IN BULK OR IN BAGS:** To control stored product insects including, but not limited to: 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, Sawtoothed Grain Beetles and Squarenecked Grain Beetles, dilute 7 ounces of PyGanic® Crop Protection EC 1.4<sub>H</sub> 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.

**OR 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 clean up 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 of the 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 6 parts water (1.3 pints with 1.0 gallon of water) up to 1 part to 2 parts (1 quart with 1 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 LIVESTOCK AND POULTRY SPRAY:**

- 1) To kill and repel horn flies, house flies, mosquitoes and gnats, dilute at the rate of 5 to 10 fluid ounces per gallon of water and apply to wet the hair thoroughly with 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, horse flies, and deer flies, dilute at the rate of 9 to 14 fluid ounces per gallon of water and apply at a quart per adult animal to wet the hair thoroughly with particular attention to the 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 9 fluid ounces per gallon of water and apply using spray which produces large wetting droplets. Apply to the face of the animal in the morning before releasing to pasture. Apply sufficiently to wet the face but not more than 1-1/2 ounces of diluted solution per animal. Repeat daily as needed.
- 4) For effective control of biting and sucking lice on cattle, horses, sheep, goats and hogs, dilute at the rate of 1 quart with 16 gallons of water (3 fluid ounces with 1 gallon) and spray to thoroughly wet the hair of the animal including the head and brush of the tail. Repeat treatment in 10 days to kill newly hatched lice.
- 5) To control poultry lice, using a dilution of 9 to 14 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) For control of bedbugs and mites on poultry and in poultry houses, dilute at the rate of 9 to 14 fluid ounces per gallon of water and spray crevices of roost poles, cracks in walls and cracks in nests where the bedbugs and mites hide. This should be followed by spraying over the birds with a fine mist.
- 7) To control sheep "tick" or ked, dilute at the rate of 5 to 10 fluid ounces per 4 gallons of water and thoroughly wet all portions of the body by dipping or by 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 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 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.

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- 9) To control adult darkling beetle (lesser meal worm) in poultry houses. Dilute 1-3 fl. oz. of PyGanic Crop Protection EC 1.4<sub>II</sub> 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 250-500 sq. ft. 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 1-4 feet out from the foundation.

For maximum effectiveness, treatments should coincide with poultry house clean out and litter replacement as this activity will tend to flush beetles to vertical surfaces where they will be exposed to the spray.

**FOR USE IN BARNs, DAIRIES, MILKING PARLORS, MILKING ROOMS AND POULTRY HOUSES:** To control flying insects including, but not limited to: Flies, Fruit Flies, Mosquitoes, Gnats, Wasps, Hornets and Small flying Moths, dilute at the rate of 9 fluid ounces per gallon of water. Apply as a fog or fine mist (at approximately 2 ounces per 1000 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.

**STORAGE AND DISPOSAL**

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

**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) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other approved State and Local procedures.

**STORAGE AND DISPOSAL**

**STORAGE:** Store in a cool, dry place inaccessible to children. Keep container closed.

**DISPOSAL:** Do not reuse empty container. Wrap container in several layers of newspaper and discard in garbage.

Net Contents \_\_\_\_\_

Manufactured by:

Mc LAUGHLIN GORMLEY KING COMPANY  
8810 Tenth Avenue North  
Minneapolis, MN 55427

EPA Reg. No. 1021-1771

EPA Est. No. 1021-MN-2

**LABEL SUPPLEMENT**

**DIRECTIONS FOR APPLICATION THROUGH IRRIGATION SYSTEMS**

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.

EPA Reg. No. 1021--1771

**McLaughlin Gormley King Co.  
8810 Tenth Avenue North  
Minneapolis, MN 55427-4372**