BotaniGard® 22WP

WETTABLE POWDER MYCOINSECTICIDE

For use in controlling Whitefly, Aphids, Thrips, Psyllids, Weevils and Mealybugs in Ornamentals and Vegetables, Indoor/Outdoor Nursery, Greenhouse, Shadehouse, Commercial Landscape, Interiorscape and Turf.

Active Ingredient: *Beauveria bassiana* Strain GHA.....22.0%*
Inert Ingredients: 78.0%**
Total: 100.0%

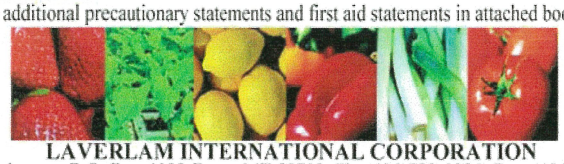
*Based on the weight estimate of 4.78×10^{-12} grams per spore.
**Contains petroleum distillates.
BotaniGard 22WP contains 2×10^{13} viable spores per pound.

KEEP OUT OF THE REACH OF CHILDREN

Store between 40°F and 85°F

CAUTION

See additional precautionary statements and first aid statements in attached booklet.



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Department of Agriculture
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PERIOD **2011-2013** LIC. NO.

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8810.3

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.)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Harmful if absorbed through the skin, inhaled, or swallowed. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist or dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
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. • Call 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.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

NOTE TO PHYSICIAN

Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

RECEIVED
MAY 25 2011
Pesticides Branch

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as nitrile rubber or butyl rubber
- Shoes plus socks

Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE 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 product is potentially pathogenic to honey bees. Avoid applying to areas where honey bees are actively foraging or around bee hives. This product may be toxic to fish. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters or rinsate. Do not discharge into lakes, streams, ponds, or public waterways.

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 State or Tribal agency responsible for pesticide regulation.

For use in controlling Whitefly, Aphids, Thrips, Psyllids, Weevils and Mealybugs in Ornamentals and Vegetables, Indoor / Outdoor Nursery, Greenhouse, Shadehouse, Commercial Landscape, Interiorscape and Turf. Suitable for use with ultra low-volume application equipment.

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 apply only 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 4 hours unless wearing the appropriate personal protective equipment.

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

- Coveralls
- Chemical-resistant gloves such as nitrile rubber of butyl rubber
- 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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours unless wearing the appropriate personal protective equipment.

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

GENERAL INFORMATION

BotaniGard 22WP contains live spores of the naturally occurring fungus, *Beauveria bassiana* Strain GHA. Spores are alive and can be harmed by storage at high temperatures or contact with water for more than 24 hours. See STORAGE AND DISPOSAL instructions on the container label.

MODE OF ACTION AND APPLICATION TIMING

Begin treatment of crops at the first appearance of the insect pest. Typically, it takes 7-10 days after the first spray to see control. Application rates, frequency, spray coverage and insect numbers impact the speed at which acceptable control is achieved. BotaniGard 22WP is most effective when used early, before high insect populations develop. Reapply as necessary under a pest management program that includes close scouting. Intense pest outbreaks may require combination of BotaniGard 22WP with a compatible insecticide.

Contact Laverlam International Corporation or your distributor for specific information on compatible insecticides.

PRE-HARVEST INTERVAL

Pre-harvest interval for BotaniGard 22WP is zero (0) days. BotaniGard 22WP can be applied up to and including the day of harvest.

INSECTS FOR WHICH BOTANIGARD 22WP MAY BE USED

WHITEFLY Banded-winged Whitefly, Citrus Blackfly, Citrus Whitefly, Giant Whitefly, Greenhouse Whitefly, Silverleaf Whitefly, Sweet Potato Whitefly (aka Tobacco Whitefly)

APHIDS Bean Aphid, Cabbage Aphid, Cowpea Aphid, Green Peach Aphid, Greenbug, Hop Aphid, Melon/Cotton Aphid, Pea Aphid, Potato Aphid, Rose Aphid, Russian Wheat Aphid, Spotted Alfalfa Aphid

THRIPS Greenhouse Thrips, Cuban Laurel Thrips, Pear Thrips, Potato/Onion, Thrips, *Thrips palmi,* Western Flower Thrips

PSYLLIDS Pear Psylla, Tomato/Potato Psylla

MEALYBUGS Citrus Mealybug, Buffalo Grass Mealybug, Grape Mealybug, Longtailed Mealybug

LEAFHOPPERS AND PLANT HOPPERS Grape Leafhoppers, Leafhopper, Plant hoppers, Potato Leafhoppers, Variegated Leafhopper, Virginia Creeper Leafhopper

SCARAB BEETLES Atenius, Green June Beetle, White Grubs

PLANT BUGS (HETEROPTERA) Chinch Bugs, Lace Bugs

WEEVILS Billbugs, Black Vine Weevil, Fuller Rose Weevil, Rose Curculio, Root Weevil, Strawberry Root Weevil

CROPS ON WHICH BOTANIGARD 22WP MAY BE USED

VEGETABLES acerola, arracacha, arrowroot, artichoke, arugula, asparagus, atermoya, balsam pear, bamboo shoots, beans (all varieties), beet, blackeyed peas, bokchoy, broccoli, broccoli raab, Brussels sprouts, burdock, cabbage, cantaloupe, carambols, carrots, casaba melons, cassava, catjang, cauliflower, celeriac, celery, celtuce, chayote, chervil, chickpeas, chicory, Chinese broccoli, Chinese cabbage, Chinese gai lon, Chinese longbeans, Chinese mustard, Chinese spinach, Chinese waxgourd, chrysanthemum (edible), chufa, cilantro, citron melon, collards, corn salad, crenshaw melon, cress, cucumber, dandelion, dasheen, daikon, dock, edamame, eggplant, endive, escarole, fennel, garlic, gherkin, ginger, golden pershaw melon, gourds (edible), groundcherry, guar, honey balls, honeydew melon, horseradish, kale, kohlrabi, leek, lentils, leren, lettuce, mango melon, muskmelon hybrids / varieties, mustard greens, New Zealand spinach, okra, onion, orach, parsley, parsnip, peas (all varieties), pepinos, pepper (all varieties), Persian melon, pimento (all varieties), pineapple melon, potato, pumpkin, purslane, radish, radicchio, rambutan, rape greens, rapini, rhubarb, rutabaga, salsify, shallot, snake

melon, soybeans, spinach, squash (summer/winter), sugar beet, sweet potato, Swiss chard, tanier, tomatillo, tomatoes, tumeric, turnip, watermelon, yam, zucchini

FRUITS AND BERRIES apple, apricot, avocado, bananas, blackberry, blueberry, boysenberry, calamondin, carob, cherimoya, cherry (sweet/sour), chironja, citrus citron, citrus hybrids, coffee, crabapple, cranberry, currant, dates, dewberry, durian, elderberry, fejoa, figs, gooseberry, grape (table, raisin, wine), grapefruit, guava, huckleberry, kiwi, kumquat, lemon, limes, loganberry, loquat, lychee, mandarin, mango, marionberry, nectarine, olallie berry, olives (all varieties), orange, oriental pear, papaya, passion fruit, peach, pear, persimmon, pineapple, plum, pomegranate, prune, pummelo, quihuna, quince, raspberry, sour cherry, strawberry, sweet cherry, tangelo, tangerine, youngberry

HERBS AND SPICES allspice, anise, balm, basil, borage, burnet, chamomile, caper buds, caraway, cardamom, catnip, celery seed, chervil, chicory, chives, cilantro/coriander, cinnamon, clary, coriander, costmary, cumin, curry leaf, dill, fennel, fenugreek, ginseng, horehound, hyssop, mace, marjoram, mint, mustard, nasturtium, nutmeg, oregano, paprika, pennyroyal, pepper (black/white), peppermint, rosemary, rue, sage, saffron, savory, sesame, spearmint, sweet bay leaf, tansy, tarragon, thyme, wintergreen, woodruff, wormwood

ORNAMENTALS, INCLUDING FLOWERS, FLOWERING AND FOLIAGE PLANTS, BEDDING PLANTS, GROUND-COVERS, SHRUBS, VINES, EVERGREENS AND TREES African lily, African violet, ageratum, alyssum, anthurium, arborvitae, ash, asparagus sprengeri, aster, atlas cedar, azalea, bald cypress, balsam fir, bamboo, barberry, beech, begonia, birch, Boston fern, bougainvillea, boxwood, bridal veil, cacti, caladium, calceolaria, calendula, calla lily, camella, camellias, carissa, carnation, ceanothus, celosia, chenille plant, cherro, Christmas cactus, chrysanthemum, cineraria, cleyera, coleus, cordyline, corylus avellana, cotoneaster, cottonwood, crabapple, crepe myrtle, crossandra, croton, cyclamen, cypress, daffodil, dahlia, daisy, delphinium, deodar cedar, dichondra, dieffenbachia, dogwood, Douglas fir, dracaena, dumb cane, Dusty Miller, elm, eucalyptus, ferns, ficus, fig, firethorn, fittonia, floss flower, foliage plants, forsythia, freesia, fuchsia, gardenia, geranium, gerbera, gerber daisy, gladiolus, gloxinia, grape, gynura, gypsophila, hackberry, hawthorn, hedera, hemlock, hibiscus, hickory, holly, honey suckle, hop bush, horsechesnut, hyacinth, hydrangea, iceplant, imitari, impatiens, India hawthorn, iris, ivy, Japanese aucuba, Japanese barberry, Japanese boxwood, Japanese spindle tree, Japanese yew, juniper, kalanchoe, lantana, larch, larkspur, laurel, leasianthus, leatherleaf fern, linden, lilac, lily, lithodora, lobelia, loquat, magnolia, mandevilla, maple, marigold, Mediterranean fan palm, mesembryanthemum, mimosa, monstera, mother-in-law plant, mountain laurel, myrtle, nandina, narcissus, oak, oleander, olive, orchid, ornamental kale, pachysandra, palms, pansy, parasol pine, pelargonium, peony, petunia, philodendron, phlox, photina, piggyback plant, pine, pink, pittosporum, planetree, podocarpus, poinsettia, poplar, pothos ivy, prayer plant, primrose, privet, pteris fern, pyracantha, rhododendron, rose, rubber plant, salvia, scabiosa, schefflera, schlumbegera, sedum, shrub verbena, shrubby cinquefoil, smoke tree, snapdragon, spathiphyllum, spruce, stock, sweet gum, sweet pea, sweet William, sycamore, syngonium, taxus, Texas sage, tulip, tulip tree, verbena, viburnum, vinca, Virginia creeper, walnut, wandering Jew, willow, yew, yucca, zinnia

TURF, INCLUDING LAWN AND SOD TURF GRASSES Bermuda grass, blue grass, fescue, St. Augustine grass, zoysia grass

MIXING AND APPLICATION

Apply BotaniGard 22WP using hand-held, ground spray equipment and/or low-volume application equipment. Fill spray tank with half the desired amount of water, start agitation. Use a measuring cup, spoon or calibrated container to add BotaniGard 22WP to the spray tank and mix thoroughly. Add remainder of desired amount of water. Triple rinse empty container and add rinse water to spray tank. For best results, continue agitation during application. Do not mix more BotaniGard 22WP than can be sprayed in one day. One (1) cup contains approximately 4.5 ounces of BotaniGard 22WP. After mixing in water, spray within one day. Fungal spores in BotaniGard 22WP will die and lose effectiveness if left overnight or longer in water.

DOSAGE RATE FOR GREENHOUSE, NURSERY, LANDSCAPE AND INTERIORSCAPE

Typical Application Rates/100 Gallons of Spray Volume

Whitefly and Aphids……½ to 1 pound of BotaniGard 22WP/100 gallons spray volume
Thrips ……..1 to 2 pounds of BotaniGard 22WP/100 gallons spray volume
Other labeled insects……..½ to 2 pounds of BotaniGard 22WP/100 gallons spray volume
Rate depends on insect population.

Apply BotaniGard 22WP up to a maximum of 3 pounds per 100 gallons spray volume for high insect populations or dense foliage.

Use quantity of spray sufficient to thoroughly cover foliage infested with insects. Crop size, spray equipment and local practice will determine the volume of water needed. One hundred gallons of spray volume will typically cover 5,000-20,000 square feet. **SPRAY TO WET, BUT AVOID RUNOFF.**

Low Volume Application
Apply at a rate equivalent to area coverage of high volume spray. This would normally be ½ pound to 2 pounds of BotaniGard 22WP for 5,000 to 20,000 square feet. Follow spray equipment manufacturer's instructions for final spray volume to obtain adequate coverage. **DO NOT APPLY THROUGH A THERMAL PULSE FOGGER.**

Cuttings Dip
Applications of BotaniGard 22WP may be used as pre-plant dips for cuttings as noted below. To prepare dip solution, thoroughly mix ¼ - ½ oz. BotaniGard 22WP per gallon of water (2 ½ -5 oz. BotaniGard 22WP per 10 gallons water). Prepare only as much dip solution as can be used in one day. Do not use dip solution for more than one day. Spores in water for more than 24 hours will die. Dip a small number of plants in dip solution and observe for plant damage before using dip treatment. Do not use dips if there is any visible damage to test plants.

Unrooted Cuttings
Dip the unrooted cuttings in the BotaniGard 22WP solution just long enough to wet all surfaces, then removing to a flat area. For water-sensitive varieties, cover to protect until dry. Then proceed with normal planting and misting.

Rooted Cuttings
Holding by the roots, briefly dip in the BotaniGard 22WP solution just long enough to wet all surfaces, including leaves and stems. Once removed from the dip solution, cuttings can be potted, but allow plants to dry before watering.

DOSAGE RATE FOR TURF AND SOIL APPLICATIONS IN CONTAINER ORNAMENTALS
For most soil applications, apply 1-4 oz. (up to ¼ lb.) BotaniGard 22WP per 1,000 square feet. For difficult to control soil pests, especially citrus root weevil (*Diaprepes abbreviatus*), BotaniGard 22WP can be applied at 4 oz. per 1,000 square feet.

Do not apply to water-saturated soil. Apply BotaniGard 22WP in enough water to ensure good coverage of treated area, at least one gallon per 1,000 square feet. Irrigate treated area after application to disperse BotaniGard 22WP into soil.

APPLICATION FREQUENCY
Apply BotaniGard 22WP at 5-10 day intervals. High insect populations, especially whitefly and aphids, may require application at 2-5 day intervals. Repeat applications for as long as pest pressure persists. There is no limit on the number of applications or total amount of BotaniGard 22WP which can be applied in one season.

PHYTOTOXICITY
BotaniGard 22WP has shown plant safety but has not been tested on all plant varieties or in all available tank mixes. Use caution when making applications to open blooms, especially on varieties known to be sensitive. BotaniGard 22WP is non-phytotoxic to melons, tomatoes, cole crops and a wide variety of ornamentals at specified label dosage rates.

For best results, foliage should be dry at time of spraying. Test BotaniGard 22WP on a small number of plants to check for potential damage before applying to larger number of plants

TANK MIX COMPATIBILITY
BotaniGard 22WP is physically and biologically compatible with a wide range of insecticides and spray adjuvants. It is compatible with some fungicides in tank mixtures. Fungicides may kill the spores. No label dosage should be exceeded. Observe the most restrictive of the labeling limitations and precautions of all products used n mixtures.

Adjuvants BotaniGard 22WP is designed for application without additional wetting agents and spreaders. If adjuvants are needed for some other reason, contact your dealer or Laverlam International Corporation for

specific instructions. Some wetting agents and spreaders kill the spores, the active ingredient in BotaniGard 22WP, or contribute to poor mixing and spray problems. In all cases, pesticides must be used in accordance with their labels.

Compatibility With Chemical Insecticides BotaniGard 22WP is compatible with most chemical insecticides. However, some insecticide formulations can kill the fungal spores, the active ingredient in BotaniGard 22WP. If you are going to use BotaniGard 22WP in combination with other pesticides, contact your dealer or Laverlam International Corporation for specific information. In all cases, pesticides must be used in accordance with their labels.

Compatibility With Fungicides BotaniGard 22WP is compatible in tank mix with some fungicides. Contact Laverlam International or your dealer for specific instructions on using BotaniGard 22WP with fungicides.

CHEMIGATION

Do not apply this product through any type of irrigation system.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Store in a cool, dry place. Avoid storage below freezing temperatures or above 85°F. BotaniGard 22WP stability decreases with time at elevated temperatures above 85°F. Tightly reclose the container of unused product. Do not contaminate unused product with water.

PESTICIDE DISPOSAL

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

WARRANTY AND DISCLAIMER

BotaniGard 22WP conforms to the description set forth on this label and is reasonably fit for the purposes described herein when used according to the label directions and specified conditions. The manufacturer disclaims any and all other express or implied warranties of merchantability and fitness for particular purpose. Buyers and users shall assume all risk and responsibility for potential loss or damage if this product is used, stored, handled or applied in a manner inconsistent with this labeling. To the extent permitted by law, manufacturer shall not be liable for more than the purchase price for the quantity involved including incidental, consequential or special damages.