BOTANIGARD® 22WP
Wettable Powder Mycoinsecticide


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

*Based on the weight estimate of $4.78 \times 10^{-12}$ grams per spore.
**Contains petroleum distillates.
BotaniGard 22WP contains $2 \times 10^{11}$ viable spores per pound.

KEEP OUT OF REACH OF CHILDREN
CAUTION

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

Store between 40°F and 85°F

LAM INTERNATIONAL CORPORATION
117 S. Parkmont; PO Box 4109 – Butte, MT 59702;
Ph: (406)782-2386; Fax: (406)782-9912
EPA Registration Number 82074-2 EPA Establishment Number 65626-MT-02
Net Contents: Pound; 500gm
Expiration Date:

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.

<table>
<thead>
<tr>
<th>FIRST AID</th>
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</thead>
<tbody>
<tr>
<td><strong>If in eyes</strong></td>
</tr>
<tr>
<td>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</td>
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<tr>
<td>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</td>
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<tr>
<td>• Call poison control center or doctor for treatment advice.</td>
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<tr>
<td><strong>If on skin or clothing</strong></td>
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<tr>
<td>• Take off contaminated clothing.</td>
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<tr>
<td>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</td>
</tr>
<tr>
<td>• Call a poison control center or doctor for treatment advice.</td>
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<tr>
<td><strong>If inhaled</strong></td>
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<tr>
<td>• Move person to fresh air.</td>
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<tr>
<td>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</td>
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<tr>
<td>• Call a poison control center or doctor for further treatment advice.</td>
</tr>
<tr>
<td><strong>If swallowed</strong></td>
</tr>
<tr>
<td>• Immediately call a poison control center or doctor.</td>
</tr>
<tr>
<td>• Do not induce vomiting unless told to do so by the poison control center or doctor.</td>
</tr>
<tr>
<td>• Do not give any liquid to the person.</td>
</tr>
<tr>
<td>• Do not give anything by mouth to an unconscious person.</td>
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</tbody>
</table>

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.

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 rinseate. 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.


**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 or 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 LAM 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
Peach 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 PLANTHOPPERS
Grape Leafhopper  Leafhoppers
Planthoppers  Potato Leafhopper
Variegated Grape 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 lan  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  honeymelon
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  turmeric
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  feijoa  figs
gooseberry  grape (table, raisin, wine)  grapefruit
guava  huckleberry  kiwi
kumquat  lemon  limes
loganberry  loquat  lychee
mandarin  mango  marionberry
nectarine  nectarine  olallie berry
orange  oriental pear  papaya
passion fruit  peach  pear
persimmon  pineapple  plum
pomegranate  prune  punumelo
quiwuna  quince  raspberry
sour cherry  strawberry  sweet cherry
tangelo  tangerine  youngberry

HERBS AND SPICES
allspice  anise  balm
basil  borage  burnet
chamomile  caperbuds  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
woodruff

ORNAMENTALS, INCLUDING FLOWERS, FLOWERING AND FOLIAGE
PLANTS, BEDDING PLANTS, GROUNDCOVERS, SHRUBS, VINES,
EVERGREENS AND TREES

African lily
African violet
Agapanthus
Ageratum
Alyssum
Anthurium
Azalea
Barberry
Beech
Begonia
Birch
Boston fern
Bougainvillea
Boxwood
Bridal veil
Calendula
Calla lily
Camellia
Camellias
Carnation
Carya
deoard
cedar
Cineraria
Coleus
Crupe
Myrtle
Cypress
Dahia
Daisy
dichondra
Dichondra
Dotted
Brier
Dogwood
Dusty Miller
Dumb cane
Echeveria
Eichia
Elytrigia
Euphorbia
Fern
Ficus
Forsythia
Freesia
Fuchsia
Geranium
Gerbera
gladiolus
Gloxinia
Gypsophila
Hedera
Hibiscus
Hyacinth
Hydrangea
Ice plant
Impatiens
Iris
Japanese barberry
Japanese boxwood
Japanese yew
Japanese aucuba
Lavandula
Laurel
Lilac
Lobelia
Lycoris
Mandevilla
Mediterranean fan palm
Monstera
Mother-in-law plant
Mountain laurel
Mountain laurel
Myrtle
Narcissus
Oak
Orchid
Oleander
Pachysandra
Pansy
Pea
Petunia
Phlox
Pine
Pink
Pittosporum
Pine
Poinsettia
Ponytail
Poteria
Privet
Rhododendron
Rose
Salvia
Scabiosa
Schlumbergera
Sedum
Shrub verbena
Smoke tree
Sparrow
Spruce
Sweet gum
Sweet pea
Syngonium
Taxus
Texas sage
Tulip
Verbena
Wanderer
Willow
Yew
Zinnia

TURF, INCLUDING LAWN AND SOD TURF GRASSES
Bermuda grass
Blue grass
Fescue
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

<table>
<thead>
<tr>
<th>Insects</th>
<th>Rate</th>
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<tbody>
<tr>
<td>Whitefly and Aphids</td>
<td>1/2 to 1 pound of BotaniGard 22WP/100 gallons spray volume</td>
</tr>
<tr>
<td>Thrips</td>
<td>1 to 2 pounds of BotaniGard 22WP/100 gallons spray volume</td>
</tr>
<tr>
<td>Other labeled insects</td>
<td>2 pounds of BotaniGard 22WP/100 gallons spray volume</td>
</tr>
</tbody>
</table>

Rate depends on insect population.

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 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 in 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 LAM 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 LAM 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 LAM 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.

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**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**

(For plastic containers) 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 recapture. Shake for 10 seconds. Pour rinseate 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.

(For foil bags) Nonrefillable container. Do not reuse or refill this container. Completely empty bat into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling, if available, or dispose of empty bag in sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

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**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.