PM 92 65626-8 8/11/99 Page 1729

BOTANIGARD™ ES

• Emulsifiable Suspension Mycoinsecticide

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

Active Ingredient: *Beauveria bassiana* Strain GHA	11.3%**
Inert Ingredients	88.7%*

*Contains petroleum distillates.

** Based on the weight estimate of 4.78×10^{-12} grams per spore.

BotaniGard ES contains 2.3×10^{10} viable *Beauveria bassiana* spores per gram.

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

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

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Harmful if swallowed, inhaled, or absorbed through the skin. Minimize breathing mists or vapors. Use with adequate ventilation. Avoid contact with skin, eyes, or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

ACCEPTED
AUG 11 1999
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 65626-8

FIRST AID

If Swallowed: Do not induce vomiting; call a physician immediately.
If Inhaled: *If irritation persists, contact physician.*
If On Skin: Wash with soap and water.
If In Eyes: Flush with water.

USER SAFETY RECOMMENDATIONS: Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

NOTE TO PHYSICIAN

Product contains petroleum distillates; vomiting may cause aspiration pneumonia.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Coveralls over long-sleeved shirt and long pants. Shoes plus socks and dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. 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.

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. 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.

Net Contents: _____

Lot Number: _____ Expiration Date: _____

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P.O. Box 4109 - Butte, MT 59702-4109
Phone: (406)782-2386 Fax: (406)782-9912

EPA Registration Number 65626-8
EPA Establishment Number 65626-MT-02
Edition -990115

GENERAL INFORMATION

BotaniGard ES contains live spores of the naturally occurring fungus, *Beauveria bassiana* Strain GHA. Spores are alive and may be harmed by storage at high temperatures or contact with water for more than 24 hours. See storage instructions on this 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 ES 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 ES with a compatible insecticide.

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

PRE-HARVEST INTERVAL Pre-harvest interval for BotaniGard ES is zero (0) days. BotaniGard ES can be applied up to the day of harvest.

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 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. 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 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 over long-sleeved shirt and long pants
- Goggles, face shield or safety glasses
- Waterproof gloves
- Shoes plus socks
- Dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95.

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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 12 hours unless wearing the appropriate personal protective equipment.

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

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

INSECTS FOR WHICH BOTANIGARD ES MAY BE USED

WHITEFLY, SUCH AS

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

APHIDS, SUCH AS

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, SUCH AS

Greenhouse Thrips
Cuban Laurel Thrips
Pear Thrips
Potato/Onion Thrips
Thrips palmi
Western Flower Thrips

PSYLLIDS, SUCH AS

Pear Psylla
Tomato/Potato Psylla

MEALYBUGS, SUCH AS

Citrus Mealybug
Grape Mealybug
Buffalo Grass Mealybug
Longtailed Mealybug

SCARAB BEETLES, SUCH AS

Atenius
Green June Beetle
White Grubs

PLANT BUGS (HETEROPTERA), SUCH AS

Chinch Bugs
Lace Bugs

WEEVILS, SUCH AS

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

CROPS ON WHICH BOTANIGARD ES MAY BE USED

BotaniGard ES may be used on most crops since *Beauveria bassiana* Strain GHA, the active ingredient, is exempt from residue tolerances when applied to growing crops.

VEGETABLES, SUCH AS

acerola
arracacha
arrowroot
artichoke
arugula
asparagus
atemoya
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
radochio
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, SUCH AS

apple
apricot
avacado
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, SUCH AS

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, GROUNDCOVERS, SHRUBS, VINES, EVERGREENS AND TREES,

African lily
African violet
agerarum
alyssum
anthurium
arbor vitea
ash
asparagus sprengeri
aster
atlas cedar
azalea
bald cypress
balsam fir
bamboo
barberry
beech
begonia
birch
Boston fern
bougainvilla
boxwood
bridal veil
cacti
caladium
calceolara
calendula
calla lily
camella
camellias
carissa
carnation
ceanothus
celosia
chenille plant
cherro
Christmas cactus
chrysanthemum
cinararia
cleyera
coleus
cordyline
corylusavellana
cotoneaster
cottonwood
crabapple
crepe myrtle
crossandra
croton
cyclamen
cypress
daffodil
dahlia
daisy
delphinium
deodar cedar
dichondra
diffenbachia
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
gypsophilia
hackberry
hawthorne
hedera
hemlock
hibiscus
hickory
holly
honey suckle
hop bush
horsechesnut
hyacinth
hydrangia
iceplant
imitari
impatiens
India hawthorn
iris
ivy
Japanese aucuba
Japanese barbarry
Japanese boxwood
Japanese spindle tree
Japanese yew
juniper
kalanchoe
lantana
larch
larkspur
laurel
leasianthus
leatherleaf fern
lihden
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
pelegonium
peony
petunia
philodendron
phlox

photina	rubber plant	syngonium
piggyback plant	salvia	taxus
pine	scabiosa	Texas sage
pink	schefflera	tulip
pittosporum	schlumbegera	tulip tree
planetree	sedum	verbena
podocarpus	shrub verbena	viburnum
poinsettia	shrubby cinquefoil	vinca
poplar	smoke tree	Virginia creeper
pothos ivy	snapdragon	walnut
prayer plant	spathiphyllum	wandering Jew
primrose	spruce	willow
privet	stock	yew
pteris fern	sweet gum	yucca
pyracantha	sweet pea	zinnia
rhododendron	sweet William	
rose	sycamore	

TURF, INCLUDING LAWN AND SOD TURF GRASSES

Bermuda grass	fescue	zoysia grass
blue grass	St. Augustine grass	

MIXING AND APPLICATION

SHAKE WELL BEFORE USING. BotaniGard ES may be applied using hand-held, ground and/or aerial spray equipment, or low-volume application. BotaniGard ES contains emulsifiers and mixes readily in water. Mix well by external mixing, in-tank mixing, or pump circulation to form an emulsion. To mix, fill spray tank with half the desired amount of water and start agitation. Shake BotaniGard ES to suspend spores then with agitator running, slowly add desired quantity of BotaniGard ES to spray tank. Add remainder of desired amount of water. Continue agitation throughout loading and spraying. Triple rinse empty BotaniGard ES container with water and add rinse water to spray tank. For best results, continue agitation during spraying. Do not mix more BotaniGard ES than needed for that day. Do not mix BotaniGard ES the day before application. Spores will die if left overnight or longer in the spray tank.

Contact your dealer or Mycotech Corporation for recommendations about specific crops, insects and spray equipment.

DOSAGE RATE FOR GREENHOUSE, SHADEHOUSE, INDOOR/OUTDOOR NURSERY, LANDSCAPE AND INTERIORSCAPE

High volume application: Apply at a rate of up to one (1) quart per 100 gallons in high volume sprays (2 tsp., or 0.33 fluid ounces per gallon). Mix well by external mixing, in-tank mixing, or pump circulation to form emulsion. **SPRAY TO WET, BUT AVOID RUNOFF.**

Typical Application Rates/100 Gallons

Whiteflies, Mealybugs, Aphids.....1/2 quart to 1 quart/100 gallons spray volume
Thrips .....1 quart/100 gallons spray volume
Other labeled insects.....1/2 to 2 quarts/100 gallons spray volume depending on insect population and foliage density.

Low volume sprays: Apply at a rate equivalent to area coverage of high volume spray. This would normally be ½ quart to 2 quarts 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.**

Contact your dealer or Mycotech Corporation for specific recommendations.

CUTTINGS DIP

Applications of BotaniGard ES may be used as pre-plant dips for cuttings as noted below. To prepare dip solution, thoroughly mix ½ - 1 oz BotaniGard ES per gallon of water, (5 - 10 oz. 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 ES solution just long enough to wet all surfaces, then removing to a flat area and allow cuttings to dry. 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 ES 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.

DOSE RATE FOR TURF, FOR SOIL APPLICATIONS IN ORCHARDS, CONTAINER ORNAMENTALS AND LANDSCAPE/INTERIORSCAPE

For most soil applications, apply 2-8 fluid ounces BotaniGard ES per 1,000 square feet. For difficult to control soil pests, especially citrus root weevil (*Diaprepes abbreviatus*), apply BotaniGard ES at the upper rate (8 fl. oz. per 1,000 square feet).

Do not apply to water-saturated soil. Apply BotaniGard ES 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 ES into soil.

APPLICATION FREQUENCY

Apply BotaniGard ES 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 ES which can be applied in one season.

PLANT SAFETY

BotaniGard ES has shown plant safety but has not been tested on all plant varieties or in all tank mixes. Test BotaniGard ES on a small number of plants to check for potential damage before applying to larger number of plants. **Do not apply on poinsettias after bract formation.**

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TANK MIX COMPATIBILITY BotaniGard ES is physically and biologically compatible with a wide range of insecticides and spray adjuvants in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. It is compatible with some fungicides in tank mixtures. Fungicides may kill the spores.

Adjuvants BotaniGard ES is designed for application without additional wetting agents and spreaders. If adjuvants are needed for some other reason, contact your dealer or Mycotech Corporation for specific recommendations. Some wetting agents and spreaders kill the spores, the active ingredient in BotaniGard ES, or contribute to poor mixing and spray problems.

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

Compatibility With Fungicides BotaniGard ES is compatible in tank mix with some fungicides. Contact Mycotech or your dealer for specific recommendations on using BotaniGard ES with fungicides.

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

Spray Drift For Aerial Application

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1 The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

3 **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rates flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angels produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable direction due to the light

variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

STORAGE AND DISPOSAL

STORAGE

- Do not contaminate water, food, or feed by storage or disposal.
- Store in a cool, dry place. Avoid storage below freezing temperatures or above 85°F. BotaniGard ES 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

- Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

- Do not reuse as a container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

CONDITIONS OF SALE

BotaniGard ES 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.

12 7 29

MYCOTROL® ES

Emulsifiable Suspension Mycoinsecticide

For use in controlling Whitefly, Aphids, Thrips, Psyllids, Mealybugs, Leafhoppers, Weevils, Plant Bugs, Borers and Leaf-feeding Insects in Field, Agronomic, Vegetable and Orchard Crops; also in Forestry; Grasshoppers Mormon Crickets, Locusts and Beetles in Rangeland, Improved Pastures and Agronomic Crops; Whitefly, Aphids, Thrips, Psyllids and Mealybugs in Ornamentals and Vegetables, Indoor/Outdoor Nursery, Greenhouse, Shadehouse, Commercial Landscape, Interiorscape, and Turf.

Active Ingredient: *Beauveria bassiana* Strain GHA	11.3%**
Inert Ingredients	88.7%*

*Contains petroleum distillates.

** Based on the weight estimate of 4.78×10^{-12} grams per spore.

Mycotrol ES contains 2.3×10^{10} viable *Beauveria bassiana* spores per gram.

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

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

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Harmful if swallowed, inhaled, or absorbed through the skin. Minimize breathing mists or vapors. Use with adequate ventilation. Avoid contact with skin, eyes, or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

FIRST AID

If Swallowed: Do not induce vomiting; call a physician immediately.
If Inhaled: If irritation persists, contact physician.
If On Skin: Wash with soap and water.
If In Eyes: Flush with water.

USER SAFETY RECOMMENDATIONS: Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

NOTE TO PHYSICIAN

Product contains petroleum distillates; vomiting may cause aspiration pneumonia.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Coveralls over long-sleeved shirt and long pants. Shoes plus socks and dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. 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.

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. 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.

Net Contents: _____

Lot Number: _____ Expiration Date: _____

ACCEPTED

AUG 11 1999

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 65626-8

MYCOTECH CORPORATION

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EPA Registration Number 65626-8
EPA Establishment Number 65626-MT-02
Edition-990701

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GENERAL INFORMATION

Mycotrol ES contains live spores of the naturally occurring fungus, *Beauveria bassiana* Strain GHA. Spores are alive and may be harmed by storage at high temperatures or contact with water for more than 24 hours. See storage instructions on this 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. Mycotrol 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 Mycotrol with a compatible insecticide.

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

PRE-HARVEST INTERVAL Pre-harvest interval for Mycotrol ES is zero (0) days. Mycotrol ES can be applied up to the day of harvest.

GENERAL INFORMATION (FOR CORN ONLY)

ACTIVE INGREDIENT Mycotrol ES contains live spores of the fungus, *Beauveria bassiana*. This fungus is a naturally occurring disease organism of corn borers. Spores are alive and may be harmed by storage at high temperature or by contact with water for more than 24 hours. See storage instructions on this label.

MODE OF ACTION Mycotrol ES acts by contact. Spores attach to the insect, germinate and penetrate through the insect cuticle. The fungus then grows rapidly within the insect, causing mortality.

Beauveria bassiana occurs naturally in close association with corn plants where it infects corn borers. When Mycotrol ES in applied to corn early in the season, the fungus persists in association with corn plants providing season long reduction in corn borer damage.

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 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. 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 unless wearing 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 over long-sleeved shirt and long pants
- Goggles, face shield or safety glasses
- Waterproof gloves
- Shoes plus socks
- Dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95.

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 12 hours unless wearing appropriate personal protective equipment.

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

For use in controlling Whitefly, Aphids, Thrips, Psyllids, Mealybugs, Leafhoppers, Weevils, Plant Bugs, Borers and Leaf-feeding Insects in Field, Agronomic, Vegetable and Orchard Crops; also in Forestry; Grasshoppers Mormon Crickets, Locusts and Beetles in Rangeland, Improved Pastures and Agronomic Crops; Whitefly, Aphids, Thrips, Psyllids and Mealybugs in Ornamentals and Vegetables, Indoor/Outdoor Nursery, Greenhouse, Shadehouse, Commercial Landscape, Interiorscape, and Turf. May be aerially applied. Suitable for use with ultra low-volume application equipment.

INSECTS FOR WHICH MYCOTROL ES MAY BE USED

ORTHOPTERA, SUCH AS

Grasshoppers
Mormon Crickets
Locusts
Mole Crickets

WHITEFLY, SUCH AS

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

APHIDS, SUCH AS

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, SUCH AS

Greenhouse Thrips
Cuban Laurel Thrips
Pear Thrips
Potato/Onion Thrips
Thrips palmi
Western Flower Thrips

PSYLLIDS, SUCH AS

Pear Psylla
Tomato/Potato Psylla

MEALYBUGS, SUCH AS

Citrus Mealybug
Grape Mealybug
Buffalo Grass Mealybug
Longtailed Mealybug

LEAFHOPPERS AND PLANTHOPPERS, SUCH AS

Grape Leafhopper
Leafhoppers
Planthoppers
Variegated Grape Leafhopper
Potato Leafhopper
Virginia Creeper Leafhopper

STEM-BORING LEPIDOPTERA, SUCH AS

European Corn Borer
Lesser Cornstalk Borer
Southwestern Corn Borer
Sugar Cane Borer
Rice Stem Borer

FOLIAGE-FEEDING LEPIDOPTERA, SUCH AS

Diamondback Moth
Imported Cabbage Worm
Cabbage Looper

LEAF-FEEDING BEETLES, SUCH AS

Colorado Potato Beetle
Cucumber Beetles
Elm Leaf Beetle
Corn Rootworm
Flea Beetles
Bean Leaf Beetle
Cereal Leaf Beetle

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SCARAB BEETLES, SUCH AS

Atenius
Green June Beetle
White Grubs

PLANT BUGS (HETEROPTERA), SUCH AS

Chinch Bugs
Tarnished Plant Bug
Lygus Bug
Seed Bugs
Fleahoppers
Stink Bugs
Lace Bugs

WEEVILS, SUCH AS

Alfalfa Weevil
Cotton Boll Weevil
Vegetable Weevil
Black Vine Weevil
Pecan Weevil
Strawberry Root Weevil
Fuller Rose Weevil
Plum Curculio
Apple Curculio
Rose Curculio
Sweet Potato Weevil
Billbugs
Root Weevil
Pepper Weevil
Citrus Root Weevil

CROPS ON WHICH MYCOTROL ES MAY BE USED

Mycotrol ES may be used on most crops since *Beauveria bassiana* Strain GHA, the active ingredient, is exempt from residue tolerances when applied to growing crops.

VEGETABLES, INCLUDING

acerola
arracacha
arrowroot
artichoke
arugula
asparagus
atemoya
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

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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
radochio
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, INCLUDING

apple
apricot
avacado
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

TREE NUTS, INCLUDING

almond
beech nut
Brazil nut
butternut
cashew
chestnut
chinquapin
filbert
hickory nut
macadamia nut
pecan
pistachios
walnut

AGRONOMIC CROPS, INCLUDING

alfalfa
barley
buckwheat
clover
coffee
corn (field, sweet, pop, silage, seed, corn grown for meal/flour)
cotton
flax
hay
hops
jojoba
millet
oats
oil seed rape (canola)
peanuts
potato
rice
rye
safflower
sorghum
soybeans
sugarbeets
sugarcane
sunflower
sweet corn
sweet potato
tea
teosinte
triticale
wheat
wild rice

FORESTRY, INCLUDING

Trees and conifers, tree and forest seedlings and woody ornamentals

HERBS AND SPICES, INCLUDING

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, GROUNDCOVERS, SHRUBS, VINES, EVERGREENS AND TREES,

African lily
African violet
agerarum
alyssum
anthurium
arbor vitea
ash
asparagus sprengeri
aster

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atlas cedar
azalea
bald cypress
balsam fir
bamboo
barberry
beech
begonia
birch
Boston fern
bougainvilla
boxwood
bridal veil
cacti
caladium
calceolara
calendula
calla lily
camella
camellias
carissa
carnation
ceanothus
celosia
chenille plant
cherro
Christmas cactus
chrysanthemum
cinararia
cleyera
coleus
cordyline
corylusavellana
cotoneaster
cottonwood
crabapple
crepe myrtle
crossandra
croton
cyclamen
cypress
daffodil
dahlia
daisy
delphinium
deodar cedar
dichondra
diffenbachia
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
gypsophilia
hackberry
hawthorne
hedera
hemlock
hibiscus
hickory
holly
honey suckle
hop bush
horsechesnut
hyacinth
hydrangia
iceplant
imitari
impatiens
India hawthorn
iris
ivy
Japanese aucuba
Japanese barbarry
Japanese boxwood
Japanese spindle tree
Japanese yew
juniper
kalanchoe
lantana
larch
larkspur
laurel
leasianthus
leatherleaf fern
lihden
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
pelegonium
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	stock	viburnum
scabiosa	sweet gum	vinca
schefflera	sweet pea	Virginia creeper
schlumbegera	sweet William	walnut
sedum	sycamore	wandering Jew
shrub verbena	syngonium	willow
shrubby cinquefoil	taxus	yew
smoke tree	Texas sage	yucca
snapdragon	tulip	zinnia
spathiphyllum	tulip tree	
spruce	verbena	

TURF, INCLUDING LAWN AND SOD TURFGRASSES

Bermuda grass	fescue	zoysia grass
blue grass	St. Augustine grass	

MIXING AND APPLICATION

SHAKE WELL BEFORE USING. Mycotrol ES may be applied using hand-held, ground and/or aerial spray equipment, low-volume application equipment and chemigation **(follow specific directions for chemigation on this label)**. Mycotrol ES contains emulsifiers and mixes readily in water. Mix well by external mixing, in-tank mixing, or pump circulation to form an emulsion. To mix, fill spray tank with half the desired amount of water and start agitation. Shake Mycotrol ES to suspend spores then with agitator running, slowly add desired quantity of Mycotrol ES to spray tank. Add remainder of desired amount of water. Continue agitation throughout loading and spraying. Triple rinse empty Mycotrol ES container with water and add rinse water to spray tank. For best results, continue agitation during spraying. Do not mix more Mycotrol ES than needed for that day. Do not mix Mycotrol ES the day before application. Spores will die if left overnight or longer in the spray tank.

Contact your dealer or Mycotech Corporation for recommendations about specific crops, insects and spray equipment.

DOSAGE RATE FOR GREENHOUSE, SHADEHOUSE, INDOOR/OUTDOOR NURSERY, LANDSCAPE AND INTERIORSCAPE

High volume application: Apply at a rate of up to one (1) quart per 100 gallons in high volume sprays (2 tsp., or 0.33 fluid ounces per gallon). Mix well by external mixing, in-tank mixing, or pump circulation to form emulsion. **SPRAY TO WET, BUT AVOID RUNOFF.**

Typical Application Rates/100 Gallons

Whiteflies, Mealybugs, Aphids.....1/2 quart to 1 quart/100 gallons spray volume
Thrips .....1 quart/100 gallons spray volume
Other labeled insects.....1/2 to 2 quarts/100 gallons spray volume
depending on insect population and foliage density.

Low volume sprays: Apply at a rate equivalent to area coverage of high volume spray. This would normally be ½ quart to 2 quarts 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.**

Contact your dealer or Mycotech Corporation for specific recommendations.

CUTTINGS DIP

Applications of Mycotrol ES may be used as pre-plant dips for cuttings as noted below. To prepare dip solution, thoroughly mix ½ - 1 oz Mycotrol ES per gallon of water, (5 - 10 oz. 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 Mycotrol ES solution just long enough to wet all surfaces, then removing to a flat area and allow cuttings to dry. 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 Mycotrol ES 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.

DOSE RATE FOR FIELD, AGRONOMIC, AND VEGETABLE CROPS (EXCEPT CORN); RANGELAND, IMPROVED PASTURES & FORESTRY

GROUND APPLICATION

Apply ¼ to 1 quart Mycotrol ES/acre. Apply in sufficient water to thoroughly cover foliage infested with insects, typically 5 to 100 gallons of water per acre. Final spray volume may be up to 400 gallons per acre. Water volume depends on spray equipment, crop canopy and target pest. **SPRAY TO WET, BUT AVOID RUNOFF.**

Mycotrol ES may be applied up to a maximum of 3 quarts per acre for extreme insect pressure or dense foliage.

AERIAL APPLICATION

Apply ¼ to 1 quart Mycotrol ES per acre. Apply in sufficient water to thoroughly cover foliage infested with insects. For best results, apply in 5-10 gallons water per acre. Do not apply in less than 2 gallons water per acre.

LEAF-FEEDING LEPIDOPTERA

For use against diamondback moth, imported cabbage worm and cabbage looper: Mycotrol ES can be used alone or in a tank mix with *Bacillus thuringiensis* (vars. kurstaki, aizawai) to control these insects in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. The tank mix provides control of later instars (3^{rd} to 4^{th}) and aids in the management of resistant populations. For additional information, contact Mycotech Corporation.

Typical Application Rates/Acre
Diamondback moth.....1/2 to 1 quart/Acre.
Imported cabbage worm.....1/2 to 1 quart/Acre.
Cabbage Looper.....1 quart/Acre.

LEAF-FEEDING BEETLES
For use against Colorado Potato Beetle: Mycotrol ES can be used alone or in a tank mix with *Bacillus thuringiensis* (vars. *tenebrionis*) to control Colorado Potato Beetle in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. The tank mix improves control and aids in the management of resistant populations. For additional information, contact Mycotech Corporation.

Typical Application Rates/Acre
Colorado Potato Beetle.....1/2 to 1 quart/Acre.

DOSE RATE FOR TURF, FOR SOIL APPLICATIONS IN ORCHARDS, CONTAINER ORNAMENTALS AND LANDSCAPE/INTERIORSCAPE
For most soil applications, apply 2-8 fluid ounces Mycotrol ES per 1,000 square feet. For difficult to control soil pests, especially citrus root weevil (*Diaprepes abbreviatus*), apply Mycotrol ES at the upper rate (8 fl. oz. per 1,000 square feet).

Do not apply to water-saturated soil. Apply Mycotrol ES 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 Mycotrol ES into soil.

APPLICATION FREQUENCY
Apply Mycotrol ES 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 Mycotrol ES which can be applied in one season.

PLANT SAFETY
Mycotrol ES has shown plant safety but has not been tested on all plant varieties or in all tank mixes. Test Mycotrol ES on a small number of plants to check for potential damage before applying to larger number of plants. **Do not apply on poinsettias after bract formation.**

TANK MIX COMPATIBILITY Mycotrol ES is physically and biologically compatible with a wide range of insecticides and spray adjuvants in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. It is compatible with some fungicides in tank mixtures. Fungicides may kill the spores.

Adjuvants Mycotrol ES is designed for application without additional wetting agents and spreaders. If adjuvants are needed for some other reason, contact your dealer or Mycotech Corporation for specific recommendations. Some wetting agents and spreaders kill the spores, the active ingredient in Mycotrol ES, or contribute to poor mixing and spray problems.

Compatibility With Chemical Insecticides Mycotrol ES is compatible with most chemical insecticides. However, some insecticide formulations can kill the fungal spores, the active ingredient in Mycotrol ES. If you are going to use Mycotrol ES in combination with other

pesticides, contact your dealer or Mycotech Corporation for specific information. In all cases, pesticides should be used in accordance with their labels.

Compatibility With Fungicides Mycotrol ES is compatible in tank mix with some fungicides. Contact Mycotech or your dealer for specific recommendations on using Mycotrol ES with fungicides.

MIXING AND APPLICATION FOR CORN - GROUND AND AERIAL APPLICATION

SHAKE WELL BEFORE USING. Mycotrol ES may be applied using ground and/or aerial application equipment and chemigation using overhead sprinklers. (Follow specific directions for chemigation on this label.) Mycotrol ES contains emulsifiers and mixes readily in water. To mix, fill spray tank with half the desired amount of water and start agitation. Shake Mycotrol ES to suspend spores, then with agitator running, slowly add desired quantity of Mycotrol ES to spray tank. Add the remainder of desired amount of water. Triple rinse empty Mycotrol ES container with water and add rinse water to spray tank. For best results, continue agitation during spraying. Do not mix more Mycotrol ES than needed for that day. Do not mix Mycotrol ES the day before application. Spores will die if left overnight or longer in the spray tank.

Contact your dealer or Mycotech Corporation for specific recommendations.

DOSE RATE FOR CORN

Apply 4 fluid ounces per acre (2 ½ gallons per 80 acres).

APPLICATION TIMING FOR CORN

Apply to corn when plants are 12-16 inches high (V6-V8 stage). A single application is sufficient to establish *Beauveria bassiana* association with corn plants. A second application prior to second generation corn borer flight may further reduce damage from corn borers.

GROUND APPLICATION FOR CORN

Apply with sufficient water to provide thorough coverage. Direct spray over row to obtain optimal coverage in whorl and leaf axils. The amount of water will depend on spray equipment, crop size and local conditions. Generally, 10-gallon spray volume per acre is the minimum necessary to obtain adequate coverage.

AERIAL APPLICATION FOR CORN

Apply with sufficient water to provide thorough coverage. Use at least 2 gallons spray volume per acre; 5-10 gallons/acre will generally improve coverage.

Contact your dealer or Mycotech Corporation for specific recommendations.

CHEMIGATION

Apply Mycotrol ES only through the following types of chemigation systems: overhead sprinkler systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; or drip (trickle and microjet) systems. Do not apply this product through any other type of irrigation system.

Mycotrol ES may be applied undiluted (neat) or diluted as appropriate for injection flow rate and irrigation volume. A ratio of one part water to one part Mycotrol ES is recommended for best results. If Mycotrol ES is diluted, supply tank must be agitated to thoroughly mix Mycotrol ES in water. Add water to supply tank, start agitation, then add Mycotrol ES. Continue supply tank agitation during chemigation cycle to maintain uniform emulsion. Supply tank agitation is not necessary if Mycotrol ES is used without dilution. Shake well to suspend spores before adding Mycotrol ES to supply tank. Use contents of supply tank within one day.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform 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 its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

SPRINKLER CHEMIGATION

Use ½ to 1 quart Mycotrol ES per acre for most sprinkler chemigation applications. Apply at up to 3 quarts per acre for high insect pressure or dense foliage. For corn, apply at a rate of 4 fluid ounces Mycotrol ES per acre.

For best results, time Mycotrol ES chemigation with the end of irrigation water application. Time injection duration to apply Mycotrol ES in the minimum irrigation volume necessary to achieve uniform coverage immediately prior to shutting off irrigation water. Excessive irrigation during and after chemigation will wash active ingredient (spores) off foliage, reducing effectiveness.

With center pivot or other continuous move equipment, apply Mycotrol ES in 1/4 to 1/2 inches of water per acre.

With stationary sets, wheel lines, solid sets or hand move sprinklers, apply Mycotrol ES during the last 20-30 minutes of the set.

Supply tank agitation is necessary if Mycotrol ES is diluted in water before injection into irrigation system. Tank agitation is not necessary if Mycotrol ES is used without dilution provided the product is shaken well to resuspend spores before adding the tank and that contents of tank are used the same day.

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 water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use 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.

DRIP (TRICKLE) AND MICROJET CHEMIGATION

Use 11/2 to 3 quarts Mycotrol ES per acre in most drip or microjet chemigation. For difficult to control soil pests, especially citrus root weevil (*Diaprepes abbreviatus*), Mycotrol ES may need to be applied at up to 8 fluid ounces per 1,000 square feet.

Apply Mycotrol ES continuously for the duration of irrigation water application to achieve uniform distribution and penetration of active ingredient (spores) in the soil.

Supply tank agitation is necessary if Mycotrol ES is diluted in water before injection into irrigation system. Supply tank agitation is not necessary if Mycotrol ES is used without dilution provided the product is shaken well to resuspend spores before adding to the supply tank and that contents of supply tank are used the same day.

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 water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use 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.

Chemigation Systems Connected to Public Water Systems

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

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 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 water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use 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.

Supply tank agitation is necessary if Mycotrol ES is diluted in water before injection into irrigation system. Spray tank agitation is not necessary if Mycotrol ES is used without dilution provided the product is resuspended before adding to the other spray tank and that contents of spray tank are used the same day.

For best results in foliar applications by sprinkler, time Mycotrol ES chemigation with the end of irrigation water application. Time injection duration to apply Mycotrol ES in the minimum

irrigation volume necessary to achieve uniform coverage immediately prior to shutting off irrigation water. Excessive overhead irrigation during and after chemigation will wash active ingredient (spores) off foliage, reducing effectiveness.

For best results in soil applications by drip trickle, apply Mycotrol ES continuously for the duration of irrigation water application. Apply sufficient volume of water to carry Mycotrol ES into proximity of the target pests.

Spray Drift For Aerial Application

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1 The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

3 **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rates flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase

drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angels produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable direction due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

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SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

STORAGE AND DISPOSAL

STORAGE

- Do not contaminate water, food, or feed by storage or disposal.
- Store in a cool, dry place. Avoid storage below freezing temperatures or above 85°F. Mycotrol ES 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

- Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

- Do not reuse as a container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

CONDITIONS OF SALE

Mycotrol ES 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.