

## **PLEASE NOTE**

**This image contains more than one label  
approved for this product on this date.**

65626-8

11-28-2000

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# 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  $4.78 \times 10^{-12}$  grams per spore.

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

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing vapors (dust or spray mist). 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: Call a doctor or get medical attention. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

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: 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. Do not discharge into lakes, streams, ponds or public

**ACCEPTED**

waterways.

NOV 28 2000

Lot Number: \_\_\_\_\_

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

Expiration Date: \_\_\_\_\_

Under the Federal Insecticide, Fungicide, and Rodenticide Act, no exemption for the pesticide registered under  
EPA Reg. No. 5626-8117 South Parkmont

P.O. Box 4109 - Butte, MT 59702-4109

Phone: (406)782-2386

**MYCOTECH CORPORATION**

EPA Registration Number 65626-8

EPA Establishment Number 65626-MT-02

Fax: (406)782-9912

Edition-001011

## 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 is 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 4 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:

- 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 4 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

SCARAB BEETLES, SUCH AS

Atenius  
Green June Beetle  
White Grubs

PLANT BUGS (HETEROPTERA), SUCH AS

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

WEEVILS, SUCH AS

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

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	cassava	corn salad
arracacha	catjang	crenshaw melon
arrowroot	cauliflower	cress
artichoke	celeriac	cucumber
arugula	celery	dandelion
asparagus	celtuce	dasheen
atermoya	chayote	daikon
balsam pear	chervil	dock
bamboo shoots	chickpeas	edamame
beans (all varieties)	chicory	eggplant
beet	Chinese broccoli	endive
blackeyed peas	Chinese cabbage	escarole
bokchoy	Chinese gai lon	fennel
broccoli	Chinese longbeans	garlic
broccoli raab	Chinese mustard	gherkin
Brussels sprouts	Chinese spinach	ginger
burdock	Chinese waxgourd	
cabbage	chrysanthemum (edible)	
cantaloupe	chufa	
carambols	cilantro	
carrots	citron melon	
casaba melons	collards	

golden pershaw melon	orach	salsify
gourds (edible)	parsley	shallot
groundcherry	parsnip	snake melon
guar	peas (all varieties)	soybeans
honey balls	pepinos	spinach
honeydew melon	pepper (all varieties)	squash (summer/winter)
horseradish	Persian melon	sugar beet
kale	pimento (all varieties)	sweet potato
kohlrabi	pineapple melon	Swiss chard
leek	potato	tanier
lentils	pumpkin	tomatillo
leren	purslane	tomatoes
lettuce	radish	tumeric
mango melon	radochio	turnip
muskmelon hybrids/varieties	rambutan	watermelon
mustard greens	rape greens	yam
New Zealand spinach	rapini	zucchini
okra	rhubarb	
onion	rutabaga	

### FRUITS AND BERRIES, INCLUDING

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

### TREE NUTS, INCLUDING

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

AGRONOMIC CROPS, INCLUDING

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

FORESTRY, INCLUDING

Trees and conifers, tree and forest seedlings and woody ornamentals

HERBS AND SPICES, INCLUDING

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

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

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

atlas cedar	Dusty Miller	leatherleaf fern
azalea	elm	linden
bald cypress	eucalyptus	lilac
balsam fir	ferns	lily
bamboo	ficus	lithodora
barberry	firethorn	lobelia
beech	fittonia	loquat
begonia	floss flower	magnolia
birch	foliage plants	mandevilla
Boston fern	forsythia	maple
bougainvillea	freesia	marigold
boxwood	fuchsia	Mediterranean fan palm
bridal veil	gardenia	mesembryanthemum
cacti	geranium	mimosa
caladium	gerbera	monstera
calceolara	gerber daisy	mother-in-law plant
calendula	gladiolus	mountain laurel
calla lily	gloxinia	myrtle
camella	grape	nandina
camellias	gynura	narcissus
carissa	gypsophilia	oak
carnation	hackberry	oleander
ceanothus	hawthorne	olive
celosia	hedera	orchid
chenille plant	hemlock	ornamental kale
cherro	hibiscus	pachysandra
Christmas cactus	hickory	palms
chrysanthemum	holly	pansy
cinararia	honey suckle	parasol pine
cleyera	hop bush	pelegonium
coleus	horsechesnut	peony
cordyline	hyacinth	petunia
corylusavellana	hydrangia	philodendron
cotoneaster	iceplant	phlox
cottonwood	imitari	photina
crabapple	impatiens	piggyback plant
crepe myrtle	India hawthom	pine
crossandra	iris	pink
croton	ivy	pittosporum
cyclamen	Japanese aucuba	planetree
cypress	Japanese barberry	podocarpus
daffodil	Japanese boxwood	poinsettia
dahlia	Japanese spindle tree	poplar
daisy	Japanese yew	pothos ivy
delphinium	juniper	prayer plant
deodar cedar	kalanchoe	primrose
dichondra	lantana	privet
diffenbachia	larch	pteris fern
dogwood	larkspur	pyracantha
Douglas fir	laurel	rhododendron
dracaena	leasianthus	rose
dumb cane		rubber plant

salvia	stock	vibemum
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.

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**Low volume sprays:** Apply at a rate equivalent to area coverage of high volume spray. This would normally be  $\frac{1}{2}$  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  $\frac{1}{2}$  - 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  $\frac{1}{4}$  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  $\frac{1}{4}$  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<sup>rd</sup> to 4<sup>th</sup>) 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.
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**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 1/2 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  $\frac{1}{2}$  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 1 1/2 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.

## 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.

**NEXT**

**LABEL**

65626-8

11-28-2000

1/10

**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  $4.78 \times 10^{-12}$  grams per spore.

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

**KEEP OUT OF REACH OF CHILDREN**

## **CAUTION**

### **PRECAUTIONARY STATEMENTS**

#### **Hazards to Humans and Domestic Animals**

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing vapors (dust or spray mist). 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:** Call a doctor or get medical attention. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

**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: 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. Do not discharge into lakes, streams, ponds or public

**ACCEPTED**

NOV 28 2000

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

Lot Number: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

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

## **MYCOTECH CORPORATION**

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 - 001011

## GENERAL INFORMATION

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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 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:

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

## FRUITS AND BERRIES, SUCH AS

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

## HERBS AND SPICES, SUCH AS

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

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

African lily	cypress	India hawthorn
African violet	daffodil	iris
ageratum	dahlia	ivy
alyssum	daisy	Japanese aucuba
anthurium	delphinium	Japanese barberry
arbor vitea	deodar cedar	Japanese boxwood
ash	dichondra	Japanese spindle tree
asparagus sprengeri	diffenbachia	Japanese yew
aster	dogwood	juniper
atlas cedar	Douglas fir	kalanchoe
azalea	dracaena	lantana
bald cypress	dumb cane	larch
balsam fir	Dusty Miller	larkspur
bamboo	elm	laurel
barberry	eucalyptus	leasianthus
beech	ferns	leatherleaf fern
begonia	ficus	lilac
birch	fig	lily
Boston fern	firethorn	lithodora
bougainvillea	fittonia	lobelia
boxwood	floss flower	loquat
bridal veil	foliage plants	magnolia
cacti	forsythia	mandevilla
caladium	freesia	maple
calceolara	fuchsia	marigold
calendula	gardenia	Mediterranean fan palm
calla lily	geranium	mesembryanthemum
camella	gerbera	mimosa
camellias	gerber daisy	monstera
carissa	gladiolus	mother-in-law plant
carnation	gloxinia	mountain laurel
ceanothus	grape	myrtle
celosia	gynura	nandina
chenille plant	gypsophila	narcissus
cherro	hackberry	oak
Christmas cactus	hawthorne	oleander
chrysanthemum	hedera	olive
cinararia	hemlock	orchid
cleyera	hibiscus	ornamental kale
coleus	hickory	pachysandra
cordyline	holly	palms
corylusavellana	honey suckle	pansy
cotoneaster	hop bush	parasol pine
cottonwood	horsechesnut	pelegonium
crabapple	hyacinth	peony
crepe myrtle	hydrangia	petunia
crossandra	iceplant	philodendron
croton	imitari	phlox
cyclamen	impatiens	

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	vibemum
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  $\frac{1}{2}$  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  $\frac{1}{2}$  - 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.**

**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.

## 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.