





30x20

# MYCOTROL® ES

Emulsifiable Suspension Mycoinsecticide

(Alternate Brand Name: BotaniGard® ES)

**Notification Accepted**

Date: 05/17/2010

Reviewer: *mjhaber*

## MASTER LABEL

Sub-label A: MYCOTROL® ES – Primary Brand Name

Sub-label B: BOTANIGARD® ES – Alternate Brand Name

Active Ingredient: <i>Beauveria bassiana</i> Strain GHA.....	11.3%**
Inert Ingredients:.....	88.7%*
Total: .....	100.0%

\*Contains petroleum distillates

\*\*Based on the weight estimate of  $4.78 \times 10^{-12}$  grams per spore.  
Mycotrol ES contains  $2 \times 10^{13}$  viable spores per quart.

EPA Registration No.: 82074-1

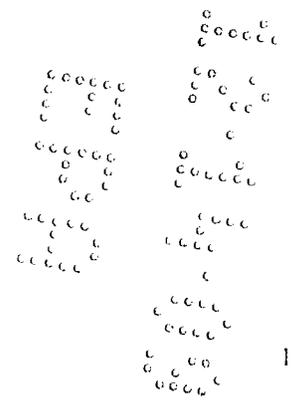
EPA Establishment No.: 65626-MT-02

LAVERLAM INTERNATIONAL CORPORATION

117 South Parkmont; PO Box 4109

Butte, MT 59702

Ph: (406)782-2386; Fax: (406)782-9912

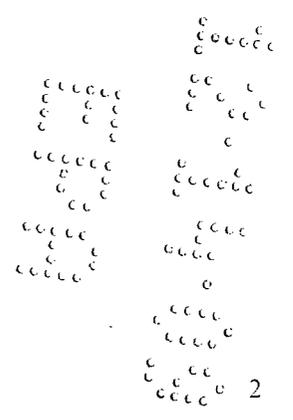


4 of 20

**MYCOTROL® ES**  
Emulsifiable Suspension Mycoinsecticide

Sub-label A

Primary Brand Name



50f20

(Front Panel)

# 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.

<b>Active Ingredient:</b> <i>Beauveria bassiana</i> Strain GHA.....	11.3%**
<b>Inert Ingredients:</b> .....	88.7%*
<b>Total:</b> .....	100.0%

\*Contains petroleum distillates  
\*\*Based on the weight estimate of  $4.78 \times 10^{-12}$  grams per spore.  
Mycotrol ES contains  $2 \times 10^{13}$  viable spores per quart.

## KEEP OUT OF REACH OF CHILDREN CAUTION

Store between  
40°F and 85°F

SHAKE WELL

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

### LAVERLAM INTERNATIONAL CORPORATION

117 S. Parkmont; PO Box 4109 – Butte, MT 59702; Ph: (406)782-2386; Fax: (406)782-9912	EPA Establishment Number 65626-MT-02
EPA Registration Number 82074-1	Lot No.:
Edition:	Expiration Date:
Net Contents:	

(Booklet)

# 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.

<b>Active Ingredient:</b> <i>Beauveria bassiana</i> Strain GHA.....	11.3%**
<b>Inert Ingredients:</b> .....	88.7%*
<b>Total:</b> .....	100.0%

\*Contains petroleum distillates  
\*\*Based on the weight estimate of  $4.78 \times 10^{-12}$  grams per spore.  
Mycotrol ES contains  $2 \times 10^{13}$  viable spores per quart.

## KEEP OUT OF REACH OF CHILDREN CAUTION

Store between  
40°F and 85°F

SHAKE WELL

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

### LAVERLAM INTERNATIONAL CORPORATION

117 S. Parkmont; PO Box 4109 – Butte, MT 59702; Ph: (406)782-2386; Fax: (406)782-9912	EPA Establishment Number 65626-MT-02
EPA Registration Number 82074-1	Lot No.:
Edition:	

Net Contents:

Expiration Date:

60020

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear (goggles, face shield, or shielded safety glasses)
- Chemical-resistant gloves such as nitrile rubber or butyl rubber
- Shoes plus socks

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

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

**Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

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

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters or rinsate. Do not discharge into lakes, streams, ponds, or public waterways.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

For use in controlling Whitefly, Aphids, Thrips, Psyllids, 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 applied aerially. Suitable for use with ultra low-volume application equipment.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box apply only to uses of this product that are covered by the Worker Protection Standard.

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

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

- Coveralls
- Chemical-resistant gloves such as nitrile rubber butyl rubber
- Shoes plus socks
- Protective eyewear (goggles, face shield, or shielded safety glasses)

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

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

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

## GENERAL INFORMATION

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 AND DISPOSAL instructions on the container label.

### MODE OF ACTION AND APPLICATION TIMING

Begin treatment of crops at the first appearance of the insect pest. Typically, it takes 7-10 days after the first spray to see control. Application rates, frequency, spray coverage and insect numbers impact the speed at which acceptable control is achieved. Mycotrol 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 Mycotrol ES with a compatible insecticide.

8020

Contact Laverlam International 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)**

Mycotrol ES contains live spores of fungus, *Beauveria bassiana* Strain GHA. 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 AND DISPOSAL instructions on the container 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.

**PRE-HARVEST INTERVAL**

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

**INSECTS FOR WHICH MYCOTROL ES MAY BE USED**

**ORTHOPTERA**

Grasshoppers  
Mole Crickets

Locusts  
Mormon Crickets

**WHITEFLY**

Banded-winged Whitefly  
Citrus Blackfly  
Giant Whitefly  
Silverleaf Whitefly

Cassava Whitefly  
Citrus Whitefly  
Greenhouse Whitefly  
Sweet Potato Whitefly (aka Tobacco Whitefly)

**APHIDS**

Bean Aphid  
Cowpea Aphid  
Greenbug  
Melon/Cotton Aphid  
Potato Aphid  
Russian Wheat Aphid

Cabbage Aphid  
Green Peach Aphid  
Hop Aphid  
Pea Aphid  
Rose Aphid  
Spotted Alfalfa Aphid

**THRIPS**

Greenhouse Thrips  
Pear Thrips  
*Thrips palmi*

Cuban Laurel Thrips  
Potato/Onion Thrips  
Western Flower Thrips

**PSYLLIDS**

Pear Psylla

Tomato/Potato Psylla

**MEALYBUGS**

Citrus Cocco  
Buffalo Grass Mealybug

Citrus Mealybug  
Grape Mealybug

Longtailed Mealybug

**LEAFHOPPERS AND PLANTHOPPERS**

Grape Leafhopper  
Planthoppers  
Rice Delphacid  
Virginia Creeper Leafhopper

Leafhoppers  
Potato Leafhopper  
Variegated Grape Leafhopper

**STEM-BORING LEPIDOPTERA**

European Corn Borer  
Rice Stem Borer  
Sugar Cane Borer

Lesser Cornstalk Borer  
Southwestern Corn Borer

**FOLIAGE-FEEDING LEPIDOPTERA**

Diamondback Moth  
Fall Army Worm

Cabbage Looper  
Imported Cabbage Worm

**LEAF-FEEDING BEETLES**

Bean Leaf Beetle  
Colorado Potato Beetle  
Cucumber Beetles  
Flea Beetles

Cereal Leaf Beetle  
Corn Rootworm  
Elm Leaf Beetle

**SCARAB BEETLES**

Ataenius  
White Grubs

Green June Beetle

**PLANT BUGS (HETEROPTERA)**

Chinch Bugs  
Lace Bugs  
Seed Bugs  
Tarnished Plant Bug

Fleahoppers  
Lygus Bug  
Stink Bugs

**WEEVILS**

Alfalfa Weevil  
Billbugs  
Citrus Root Weevil  
Cotton Boll Weevil  
Palm Weevil  
Pepper Weevil  
Plum Curculio  
Rose Curculio  
Sweet Potato Weevil

Apple Curculio  
Black Vine Weevil  
~~Coffee Berry Borer~~  
Fuller Rose Weevil  
Pecan Weevil  
Plantain Weevil  
Root Weevil  
Strawberry Root Weevil  
Vegetable Weevil

**ACARI**

Twospotted Spider Mite

**CROPS ON WHICH MYCOTROL ES MAY BE USED**

**VEGETABLES**

acerola	arracacha	arrowroot
artichoke	arugula	asparagus
atermoya	balsam pear	bamboo shoots
beans (all varieties)	beet	blackeyed peas
bokchoy	broccoli	broccoli raab
Brussels sprouts	burdock	cabbage
cantaloupe	carambols	carrots
casaba melons	cassava	catjang

cauliflower  
 celtuce  
 chickpeas  
 Chinese cabbage  
 Chinese mustard  
 chrysanthemum (edible)  
 citron melon  
 crenshaw melon  
 dandelion  
 dock  
 endive  
 garlic  
 golden pershaw melon  
 guar  
 horseradish  
 leek  
 lettuce  
 mustard greens  
 onion  
 parsnip  
 pepper (all varieties)  
 pineapple melon  
 purslane  
 rambutan  
 rhubarb  
 shallot  
 spinach  
 sweet potato  
 tomatillo  
 turnip  
 zucchini

celeriac  
 chayote  
 chicory  
 Chinese gai lon  
 Chinese spinach  
 chufa  
 collards  
 cress  
 dasheen  
 edamame  
 escarole  
 gherkin  
 gourds (edible)  
 honey balls  
 kale  
 lentils  
 mango melon  
 New Zealand spinach  
 orach  
 peas (all varieties)  
 Persian melon  
 potato  
 radish  
 rape greens  
 rutabaga  
 snake melon  
 squash (summer/winter)  
 Swiss chard  
 tomatoes  
 watermelon

celery  
 chervil  
 Chinese broccoli  
 Chinese longbeans  
 Chinese waxgourd  
 cilantro  
 corn salad  
 cucumber  
 daikon  
 eggplant  
 fennel  
 ginger  
 groundcherry  
 honeydew melon  
 kohlrabi  
 leren  
 muskmelon hybrids/varieties  
 okra  
 parsley  
 pepinos  
 pimento (all varieties)  
 pumpkin  
 radicchio  
 rapini  
 salsify  
 soybeans  
 sugar beet  
 tanier  
 tumeric  
 yam

**FRUITS AND BERRIES**

apple  
 bananas  
 boysenberry  
 cherimoya  
 citrus citron  
 crabapple  
 dates  
 elderberry  
 gooseberry  
 guava  
 kumquat  
 loganberry  
 mandarin  
 nectarine  
 orange  
 passion fruit  
 persimmon  
 pomegranate  
 quihuna  
 sour cherry  
 tangelo

apricot  
 blackberry  
 calamondin  
 cherry (sweet/sour)  
 citrus hybrids  
 cranberry  
 dewberry  
 fejoa  
 grape (table, raisin, wine)  
 huckleberry  
 lemon  
 loquat  
 mango  
 olallie berry  
 oriental pear  
 peach  
 pineapple  
 prune  
 quince  
 strawberry  
 tangerine

avocado  
 blueberry  
 carob  
 chironja  
 coffee  
 currant  
 durian  
 figs  
 grapefruit  
 kiwi  
 limes  
 lychee  
 marionberry  
 olives (all varieties)  
 papaya  
 pear  
 plum  
 pummelo  
 raspberry  
 sweet cherry  
 youngberry

**TREE NUTS**

almonds  
 butternut  
 chinquapin

beech nut  
 cashew  
 filbert

Brazil nut  
 chestnut  
 hickory nut

macadamia nut  
walnut

pecan

pistachios

**AGRONOMIC CROPS**

alfalfa  
clover  
cotton  
hay  
jojoba  
oil seed rape (canola)  
rice  
sorghum  
sugarcane  
sweet potato  
triticale

barley  
coffee  
flax  
hops  
millet  
peanuts  
rye  
soybeans  
sunflower  
tea  
wheat

buckwheat  
corn (field, sweet, pop, silage  
seed, corn grown for  
meal/flour)  
oats  
potato  
safflower  
sugar beets  
sweet corn  
teosinte  
wild rice

**FORESTRY, INCLUDING**

Trees and conifers, tree and forest seedlings and woody ornamentals

**HERBS AND SPICES**

allspice  
basil  
chamomile  
cardamom  
chervil  
cilantro/coriander  
coriander  
curry leaf  
fenugreek  
hyssop  
mint  
nutmeg  
pennyroyal  
rosemary  
saffron  
spearmint  
tarragon  
woodruff

anise  
borage  
caperbuds  
catnip  
chicory  
cinnamon  
costmary  
dill  
ginseng  
mace  
mustard  
oregano  
pepper (black/white)  
rue  
savory  
sweet bay leaf  
thyme  
wormwood

balm  
burnet  
caraway  
celery seed  
chives  
clary  
cumin  
fennel  
horehound  
marjoram  
nasturtium  
paprika  
peppermint  
sage  
sesame  
tansy  
wintergreen

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

African lily  
alyssum  
ash  
atlas cedar  
balsam fir  
beech  
Boston fern  
bridal veil  
calceolaria  
camella  
carnation  
chenille plant  
chrysanthemum  
coleus  
cotoneaster  
crepe myrtle

African violet  
anthurium  
asparagus sprengeri  
azalea  
bamboo  
begonia  
bougainvillea  
cacti  
calendula  
camellias  
ceanothus  
cherro  
cineraria  
cordylone  
cottonwood  
crossandra

ageratum  
arborvitae  
aster  
bald cypress  
barberry  
birch  
boxwood  
caladium  
calla lily  
carissa  
celosia  
Christmas cactus  
clevera  
corylus avellana  
crabapple  
croton

cyclamen  
 dahlia  
 deodar cedar  
 dogwood  
 dumb cane  
 eucalyptus  
 fig  
 floss flower  
 freesia  
 geranium  
 gladiolus  
 gynura  
 hawthorn  
 hibiscus  
 honey suckle  
 hyacinth  
 imitari  
 iris  
 Japanese barberry  
 Japanese yew  
 lantana  
 laurel  
 linden  
 lithodora  
 magnolia  
 marigold  
 mimosa  
 mountain laurel  
 narcissus  
 olive  
 pachysandra  
 parasol pine  
 petunia  
 photina  
 pink  
 podocarpus  
 pothos ivy  
 privet  
 rhododendron  
 salvia  
 schlumbergera  
 shrubby cinquefoil  
 spathiphyllum  
 sweet gum  
 sycamore  
 Texas sage  
 verbena  
 Virginia creeper  
 willow  
 zinnia

cypress  
 daisy  
 dichondra  
 Douglas fir  
 Dusty Miller  
 ferns  
 firethorn  
 foliage plants  
 fuchsia  
 gerbera  
 gloxinia  
 gypsophila  
 hедера  
 hickory  
 hop bush  
 hydrangea  
 impatiens  
 ivy  
 Japanese boxwood  
 juniper  
 larch  
 leasianthus  
 lilac  
 lobelia  
 mandevilla  
 Mediterranean fan palm  
 monstera  
 myrtle  
 oak  
 orchid  
 palms  
 pelargonium  
 philodendron  
 piggyback plant  
 pittosporum  
 poinsettia  
 prayer plant  
 pteris fern  
 rose  
 scabiosa  
 sedum  
 smoke tree  
 spruce  
 sweet pea  
 syngonium  
 tulip  
 viburnum  
 walnut  
 yew

daffodil  
 delphinium  
 dieffenbachia  
 dracaena  
 elm  
 ficus  
 fittonia  
 forsythia  
 gardenia  
 gerber daisy  
 grape  
 hackberry  
 hemlock  
 holly  
 horsechestnut  
 iceplant  
 India hawthorn  
 Japanese aucuba  
 Japanese spindle tree  
 kalanchoe  
 larkspur  
 leatherleaf fern  
 lily  
 loquat  
 maple  
 mesembryanthemum  
 mother-in-law plant  
 nandina  
 oleander  
 ornamental kale  
 pansy  
 peony  
 phlox  
 pine  
 planetree  
 poplar  
 primrose  
 pyracantha  
 rubber plant  
 schefflera  
 shrub verbena  
 snapdragon  
 stock  
 sweet William  
 taxus  
 tulip tree  
 vinca  
 wandering Jew  
 yucca

### TURF, INCLUDING LAWN AND SOD TURF GRASSES

Bermuda grass  
 St. Augustine grass

blue grass  
 zoysia grass

fescue

### MIXING AND APPLICATION

**SHAKE WELL BEFORE USING.** Apply Mycotrol ES using hand-held, ground and/or aerial spray equipment, low-volume application equipment and chemigation (**follow specific directions for chemigation in this booklet**). 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 Laverlam International Corporation for instructions about specific crops, insects and spray equipment.

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

**High volume sprays:** Apply at a rate of up to 3 quarts of Mycotrol ES per 100 gallons of spray volume in high volume sprays (2-6 tsp. or 0.33 - 1.00 fluid ounces of Mycotrol ES per gallon of spray volume). 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 of Sprav Volume**

Whitefly, Mealybugs, Aphids.....½ quart to 1 quart of Mycotrol ES/100 gallons spray volume  
Thrips .....1 to 2 quarts of Mycotrol ES/100 gallons spray volume  
Other labeled insects.....½ to 2 quarts of Mycotrol ES/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 of Mycotrol ES 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 Laverlam International Corporation for specific instructions.

**Cuttings Dip**

Applications of Mycotrol ES can be used as pre-plant dips for cuttings as noted below. To prepare dip solution, thoroughly mix ½ - 1 fl. oz. Mycotrol ES per gallon of water (5 - 10 fl. 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.

**DOSAGE RATE FOR FIELD, AGRONOMIC AND VEGETABLE CROPS (EXCEPT CORN); RANGELAND, IMPROVED PASTURES AND 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.**

Apply Mycotrol ES 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/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. Do not exceed label dosage rates. 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 Laverlam International Corporation.

**Typical Application Rates/Acre**

Diamondback moth .....½ to 1 quart of Mycotrol ES/acre  
Imported cabbage worm .....½ to 1 quart of Mycotrol ES/acre  
Cabbage looper ..... 1 quart of Mycotrol ES/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. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. The tank mix provides control and aids in the management of resistant populations. For additional information, contact Laverlam International Corporation.

**Typical Application Rates/Acre**

Colorado potato beetle..... ½ to 1 quart of Mycotrol ES/acre

**DOSAGE RATE FOR TURF AND SOIL APPLICATIONS IN ORCHARDS AND CONTAINER ORNAMENTALS**

For most soil applications, apply 2-8 fluid ounces of 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. of Mycotrol ES 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 of water 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.

**PHOTOTOXICITY**

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. It is compatible with some fungicides in tank mixtures. Fungicides may kill the spores. Do not exceed label dosage rates. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

**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 Laverlam International Corporation for specific instructions. 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 Laverlam International Corporation for specific information. In all cases, pesticides must be used in accordance with their labels.

**Compatibility With Fungicides** Mycotrol ES is compatible in tank mix with some fungicides. Contact Laverlam International or your dealer for specific instructions on using Mycotrol ES with fungicides.

**MIXING AND APPLICATION FOR CORN – GROUND AND AERIAL APPLICATION**

**SHAKE WELL BEFORE USING.** Apply Mycotrol ES using ground and/or aerial spray 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 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 Laverlam International Corporation for specific instructions.

**Dosage Rates for Corn**

Apply 4 fluid ounces of Mycotrol ES per acre (2 ½ gallons of Mycotrol ES 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, a minimum of 10 gallons spray volume per acre is 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 Laverlam International Corporation for specific instructions.

**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.

Apply Mycotrol ES undiluted (neat) or diluted for injection flow rate and irrigation volume. For best results, use one part water to one part Mycotrol ES. If Mycotrol ES is diluted, supply tank must be agitated to thoroughly mix Mycotrol ES in water. Add water to supply tank, start agitation, and 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 up to 3 quarts of Mycotrol ES per acre for high insect pressure or dense foliage. For corn, apply at a rate of 4 fluid ounces of Mycotrol ES per acre.

For best results, time Mycotrol ES chemigation with the end of the 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 ¼ to ½ 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 those 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 contaminated 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 1½ to 3 quarts of Mycotrol ES per acre for most drip or microjet chemigation. For difficult to control pests, especially citrus root weevil (*Diaprepes abbreviatus*), apply Mycotrol ES at up to 8 fl. oz. of Mycotrol ES 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 function 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 content 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 LABELING**

The Agency has been working with the Spray Drift Task Force (made up of U.S. pesticide registrants), EPA Regional Offices, and State Lead Agencies for pesticide regulation to develop the best spray drift management practices. The Agency is now requiring the interim measures specified below for all products that can be applied by aircraft. Actions taken to reduce spray drift will help mitigate contamination of surface water, reduce risk to estuarine species, and reduce harm to nontarget crops and plants. The interim Spray Drift Labeling Requirements for aerial application are as follows:

**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 determines 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 3/4 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).

**Controlling Droplet Size**

- Volume- Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated 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 the 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 angles 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 ¼ 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 cross-wind, the swath will be displaced downwind. 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 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 directions 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 upwards 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 ).

<p><b>STORAGE AND DISPOSAL</b></p> <p>Do not contaminate water, food, or feed by storage and disposal.</p> <p><b>PESTICIDE STORAGE</b></p> <p>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.</p> <p><b>PESTICIDE DISPOSAL</b></p> <p>To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).</p> <p><b>CONTAINER DISPOSAL</b></p>
---

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

**WARRANTY AND DISCLAIMER**

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.