

# MYCOTROL O<sup>®</sup>

Emulsifiable Suspension Mycoinsecticide

## OMRI

### Listed

◆ **Listed by the Organic Materials Review Institute (OMRI) for use in organic production**

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; Grasshoppers Mormon Crickets, Locusts and Beetles in Rangeland, Improved Pastures and Agronomic Crops; Whitefly, Aphids, Thrips, Psyllids and Mealybugs in Vegetables and Ornamentals grown in Indoor/Outdoor Nursery, Greenhouse, and Shadehouse.

Active Ingredient:

*Beauveria bassiana* Strain GHA.....10.9%\*  
Inert Ingredients.....89.1%

\*Based on the weight estimate of 4.78x10<sup>-12</sup> grams per spore.

Mycotrol O contains 2 x 10<sup>10</sup> conidia per ml of active ingredient.

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### KEEP OUT OF REACH OF CHILDREN CAUTION

#### PRECAUTIONARY STATEMENTS

##### Hazards to Humans and Domestic Animals

CAUTION. Causes moderate, but temporary eye irritation. Avoid contact with skin, eyes or clothing. Harmful if swallowed, inhaled or absorbed through skin. Wash thoroughly with soap and water after handling. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse.

##### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, 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.

##### USER SAFETY RECOMMENDATIONS

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

##### ENVIRONMENTAL HAZARDS

This product is potentially pathogenic to honey bees. Avoid applying to areas where honey bees are actively foraging or around bee hives. 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 washwaters. Do not discharge into lakes, ponds, or public waterways.

#### FIRST AID

<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</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 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 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 eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### GENERAL INFORMATION

MYCOTROL O contains live spores of the naturally occurring fungus, *Beauveria bassiana* Strain GHA and vegetable oil. 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 other control methods.

#### PRE-HARVEST INTERVAL

Pre-harvest interval for MYCOTROL O is zero(0) days. MYCOTROL O 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 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
- Shoes plus socks
- Waterproof gloves
- 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; Grasshoppers, Mormon Crickets, Locusts and Beetles in Rangeland, Improved Pastures and Agronomic Crops; Whitefly, Aphids, Thrips, Psyllids and Mealybugs in Vegetables and Ornamentals grown in Indoor/Outdoor Nursery, Greenhouse, and Shadehouse, May be aerially applied. Suitable for use with ultra low-volume application equipment.

## **INSECTS FOR WHICH MYCOTROL O MAY BE USED**

**ORTHOPTERA** Grasshoppers, Mormon Crickets, Locusts, Mole Crickets

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

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

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

**PSYLLIDS** Pear Psylla, tomato/Potato Psylla

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

**LEAFHOPPERS AND PLANT HOPPERS** Grape Leafhopper, Leafhoppers, Planthoppers, Variegated Grape Leafhopper, Potato Leafhopper, Virginia Creeper Leafhopper

**STEM-BORING LEPIDOPTERA** European Corn Borer, Cranberry Girdler, Lesser Cornstalk Borer, Southwestern Corn Borer, Sugar Cane Borer, Rice Stem Borer

**FOLIAGE-FEEDING LEPIDOPTERA** Diamondback Moth, Imported Cabbage Worm, Cabbage Looper

**LEAF-FEEDING BEETLES** Colorado Potato Beetle, Cucumber Beetles, Elm Leaf Beetle, Corn Rootworm, Flea Beetle, Bean Leaf Beetle, Cereal Leaf Beetle

**SCARAB BEETLES** Atenius, Green June Beetle, White Grubs

**PLANT BUGS (HETEROPTERA)** Chinch Bugs, Tarnished Plant Bug, Lygus Bug, Seed Bugs, Fleahoppers, Stink Bugs, Lace Bugs

**WEEVILS** Alfalfa Weevil, cotton Boll Weevil, Vegetable Weevil, Black Vine Weevil, Pecan Weevil, Strawberry Root Weevil, Fuller Rose Weevil, Plum Curculio, Apple Curculio, rose Curculio, Sweet Potato Weevil, Billbugs, Root Weevil, Pepper Weevil, Citrus Root Weevil

## **CROPS ON WHICH MYCOTROL O MAY BE USED**

MYCOTROL O may be used on most crops since *Beauveria bassiana* Strain GHA, the active ingredient, is exempt from residue tolerances when applied to growing crops. Each crop listed below is introduced with the phrase "including, but not limited to". This allows the use of this product on crops not specifically listed herein.

**VEGETABLES, INCLUDING, BUT NOT LIMITED TO** acerola, arracacha, arrowroot, artichoke, arugula, asparagus, atermoya, avocado, balsam pear, bamboo shoots, beans (all varieties), beet, blackeyed peas, bokchoy, broccoli, broccoli raab, Brussels sprouts, burdock, cabbage, cantaloupe, carambols, carrots, casaba melons, cassava, catjang, cauliflower, celeriac, celery, celtuce, chayote, chervil, chickpeas, chicory, Chinese broccoli, Chinese cabbage, Chinese gai lon, Chinese longbeans, Chinese mustard, Chinese spinach, Chinese waxgourd, chufa, cilantro, citron melon, collards, corn salad, crenshaw melon, cress, cucumber, dasheen, daikon, dock, edamame, eggplant, endive, escarole, fennel, garlic, gherkin, ginger, golden pershaw melon, gourds (edible), groundcherry, guar, honey balls, honeydew melon, horseradish, kale, kohlrabi, leek, lentils, leren, lettuce, mango melon, muskmelon hybrids/varieties, mustard greens, New Zealand spinach, okra, onion, orach, Oriental broccoli, Oriental cabbage, Oriental gai lon, Oriental longbeans, Oriental mustard, Oriental spinach, Oriental waxgourd, parsley, parsnip, peas (all varieties), pepinos, pepper (all varieties), Persian melon, pimento (all varieties), pineapple melon, potato, pumpkin, purslane, radish, radicchio, rambutan, rape greens, rapini, rhubarb, rutabaga, salsify, shallot, snake melon, soybeans, spinach, squash (summer/winter), sugar beet, sweet potato, Swiss chard, tanager, tomatillo, tomatoes, tumeric, turnip, watermelon, yam, zucchini

**FRUITS AND BERRIES, INCLUDING** apple, apricot, avocado, banana, blackberry, blueberry, boysenberry, calamondin, carob, cherimoya, cherry (sweet/sour), chironja, citrus citron, citrus hybrids, coffee, crabapple, cranberry,

currant, dates, dewberry, durian, elderberry, fejoa, figs, gooseberry, grape (table, raisin, wine), grapefruit, guava, huckleberry, kiwi, kumquat, lemon, lime, loganberry, loquat, lychee, mandarin, mango, marionberry, nectarine, olallie berry, olives (all varieties), orange, oriental pear, papaya, passion fruit, peach, pear, persimmon, pineapple, plum, pomegranate, prune, pummelo, quihuna, quince, raspberry, sour cherry, strawberry, sweet cherry, tangelo, tangerine, youngberry

**TREE NUTS, INCLUDING** almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert, hickory nut, macadamia nut, pecan, pistachios, walnut

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

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

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

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

## **MIXING AND APPLICATION**

**SHAKE WELL BEFORE USING.** MYCOTROL O 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 O contains emulsifiers and mixes readily in water. Mix well by 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 O to suspend spores then with agitator running, slowly add desired quantity of MYCOTROL O to spray tank. Add remainder of desired amount of water. Continue agitation throughout loading and spraying. Triple rinse empty MYCOTROL O container with water and add rinse water to spray tank. For best results, continue agitation during spraying. Do not mix

more MYCOTROL O than needed for that day. Do not mix MYCOTROL O the day before application. Performance may suffer if spores are left overnight or longer in the spray tank.

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

## **DOSE RATE FOR FIELD, AGRONOMIC, AND VEGETABLE CROPS; RANGELAND, AND IMPROVED PASTURES**

### **GROUND APPLICATION**

Typically apply ¼ to 1 quart MYCOTROL O/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 O may be applied up to a maximum of 3 quarts per acre for extreme insect pressure or dense foliage.

### **AERIAL APPLICATION**

Apply ¼ to 1 quart MYCOTROL O 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 O 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 Laverlam International 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 O 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 Laverlam International Corporation.

#### **Typical Application Rates/Acre**

Colorado Potato Beetle.....1/2 to 1 quart/Acre.

## **DOSAGE RATE FOR GREENHOUSE, SHADEHOUSE, INDOOR/OUTDOOR NURSERY - High volume sprays:**

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

#### **Typical Application Rates/100 Gallons**

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

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

Contact your dealer or Laverlam International for specific recommendations.

## **DOSE RATE FOR SOIL APPLICATIONS IN ORCHARDS,**

For most soil applications, apply 2-8 fluid ounces MYCOTROL O per 1000 square feet. For difficult to control soil pests, especially citrus root weevil (*Diaprepes abbreviatus*), apply MYCOTROL O at the upper rate (8 fl. oz. per 1,000 square feet).

Do not apply to water-saturated soil. Apply MYCOTROL O 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 O into soil.

### **APPLICATION FREQUENCY**

Apply MYCOTROL O 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 O which can be applied in one season.

### **PLANT SAFETY**

MYCOTROL O has shown plant safety but has not been tested on all plant varieties or in all tank mixes. Test MYCOTROL O on a small number of plants to check for potential damage before applying to larger number of plants.

### **TANK MIX COMPATIBILITY**

**Adjuvants** MYCOTROL O 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 recommendations. Some wetting agents and spreaders kill the spores, the active ingredient in MYCOTROL O, or contribute to poor mixing and spray problems.

**Compatibility With Chemical Insecticides** MYCOTROL O is compatible with most organic insecticides and spray adjuvants. However, some insecticide formulations can kill the fungal spores, the active ingredient in MYCOTROL O. If you are going to use MYCOTROL O in combination with other pesticides, contact your dealer or Laverlam International Corporation for specific information. In all cases, pesticides should be used in accordance with their labels.

**Compatibility With Fungicides** MYCOTROL O is **not** compatible in tank mix with fungicides. Contact Laverlam International or your dealer for specific recommendations on using MYCOTROL O with fungicides.

## **CHEMIGATION**

Apply MYCOTROL O 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. **Do not use in systems having smaller than 40-mesh screens.**

MYCOTROL O 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 O is recommended for best results. If MYCOTROL O is diluted, supply tank must be agitated to thoroughly mix MYCOTROL O in water. Add water to supply tank, start agitation, then add MYCOTROL O. Continue supply tank agitation during chemigation cycle to maintain uniform emulsion. Supply tank agitation is not necessary if MYCOTROL O is used without dilution. Shake well to suspend spores before adding MYCOTROL O 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 O 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 O per acre.

For best results, time MYCOTROL O chemigation with the end of irrigation water application. Time injection duration to apply MYCOTROL O 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 O in 1/4 to 1/2 inches of water per acre.

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

Supply tank agitation is necessary if MYCOTROL O is diluted in water before injection into irrigation system. Tank agitation is not necessary if MYCOTROL O 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 ½ to 3 quarts MYCOTROL O per acre in most drip or microjet chemigation. For difficult to control soil pests, especially citrus root weevil (*Diaprepes abbreviatus*), MYCOTROL O may need to be applied at up to 8 fluid ounces per 1,000 square feet.

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

For best results in foliar applications by sprinkler, time MYCOTROL O chemigation with the end of irrigation water application. Time injection duration to apply MYCOTROL O 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 O continuously for the duration of irrigation water application. Apply sufficient volume of water to carry MYCOTROL O 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 LABELING

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 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 manufacture'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 3/4 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).

### **STORAGE AND DISPOSAL**

#### **PESTICIDE 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 O 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 O 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.