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NTAL PROTEC A AGENCY

NOV 1 3 2008

Ms. Lori J. Walsh Vice President of Finance and Administration Laverlam International Corporation 117 South Parkmont Street Butte, MT 59701

Re: Laverlam International Corporation, Mycotrol® O EPA Registration No. 82074-3 Minor Label ("Fast Track") Amendment Original Application Dated 04/25/2008

Dear Ms. Walsh:

The Agency has reviewed your request to amend the subject product registration, which included the following changes to the product label:

- 1) Revision to the product names (primary brand name: Mycotrol® O and alternate brand name: OrganiGard),
- 2) Addition of the phrases, "Store between 40°F and 85°F" and "Shake Well,"
- 3) Adjustment to the Ingredient Statement to ensure that the decimal points are aligned and that the Ingredient Statement is not crowded by other labeling,
- 4) Addition of a total line to the Ingredient Statement,
- 5) Revision of the viability statement so that it matches the Confidential Statement of Formula (CSF),
- 6) Adjustment to the Hazards to Humans and Domestic Animals and First Aid sections so that the routes of exposure of most concern are listed first,
- 7) Correction of typographical errors,
- 8) Removal of the need for a dust/mist filtering respirator in the Agricultural Use Requirements Box,
- 9) Revision of several words, from advisory to mandatory, in the Directions for Use in accordance with PR Notice 2000-5,
- 10) Replacement of "Plant Safety" sub-heading with "Phytotoxicity,"
- 11) Replacement of "Conditions of Sale" sub-heading with "Warranty and Disclaimer," and
- 12) Addition of the several statements in the Tank Mix Compatibility section.

| CONCURRENCES |            |           |           |  |  |  |  |          |
|--------------|------------|-----------|-----------|--|--|--|--|----------|
| SYMBOL       | 75 U P     | 7511F     | 7511P     |  |  |  |  |          |
| SURNAME      | KAUSCH     | Brycelund | Reief     |  |  |  |  |          |
| DATE         | 11/07/2008 | 11 7/06   | 11 139 08 |  |  |  |  |          |
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EPA Form 1320-1A (1/90)

Printed on Recycled Paper

Lori J. Walsh EPA Registration No. 82074-3 -2-

In addition to the label amendments specified above, you also requested permission to add National Organic Program (NOP) labeling in your original submission dated April 25, 2008. At this time, the Agency will not allow NOP labeling on the Mycotrol® O label for reasons outlined in a previous response letter dated August 22, 2008. If those deficiencies are sufficiently addressed by you at a future time, the Agency is willing to revisit your request and review your corrections.

Lastly, you submitted a CSF to reflect the revision of the product name from OrganiGard to Mycotrol® O. The new CSF dated June 26, 2008 supersedes the previous CSF dated November 16, 2007 and will be filed in the Agency's records as the official CSF.

The changes referred to on the previous page, submitted in connection with registration under FIFRA section 3(c)(5), are acceptable provided that you:

- Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
- 2) Submit two (2) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of a final printed label.

Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. If you have any questions contact Jeannine Kausch at 703-347-8920 or by email at: kausch.jeannine@epa.gov.

A stamped copy of the label and CSF are enclosed for your records.

Sincerely,

Sheryl K. Reilly, Ph.D., Chief Microbial Pesticides Branch Biopesticides and Pollution Prevention Division (7511P)

Enclosures (3):

- A-79 Enclosure

- Accepted Label

- Confidential Statement of Formula

## (Front Panel) MYCOTRO

**Emulsifiable Suspension Mycoinsecticide** (Alternate Brand Name: OrganiGard)

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 82074-3

NOV 1 3 2008

ACCEPTFD

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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%\* 

\*Based on the weight estimate of  $4.78 \times 10^{-12}$  grams per spore. Mycotrol O contains 2 x  $10^{13}$  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 Registration Number 82074-3 EPA Establishment Number 65626-MT-02

Edition: Net Contents: Lot No.:

**Expiration Date:** 



(Booklet)

# MYCOTROL<sup>®</sup> O

Emulsifiable Suspension Mycoinsecticide (Alternate Brand Name: OrganiGard)

For use in controlling Whitefly, Aphids, Thrips, Psyllids, and Mealybugs, Leathoppers, 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%\* 

\*Based on the weight estimate of 4.78 x 10<sup>-12</sup> grams per spore.

Mycotrol O contains 2 x 10<sup>13</sup> viable spores per quart.

## **KEEP OUT OF REACH OF CHILDREN**

## CAUTION

Store between 404F and 854F

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

## LAVERLAM INTERNATIONAL CORPORATION

117 South Parkmont; PO Box 4109 - Butte, MT 59702; Ph: (406)782-2386; Fax: (4)6)782-9912 EPA Registration Number 82074-3 Edition:

EPA Establishment Number 65626-MT-02



Net Contents: Lot No.: Expiration Date:

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 eyes, skin 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 elothing and wash clothing before reuse.

|                               | FIRST AID  |  |  |  |
|-------------------------------|--|--|--|--|
| If in eyes                    | <ul> <li>Hold eye open and runse slowly and gently with water for 15 – 20 minutes.</li> </ul>  |  |  |  |
| 1                             | • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.   |  |  |  |
|                               | Call poison control center or doctor for treatment advice.   |  |  |  |
| If on skin or clothing        | n skin or clothing • Take off contaminated clothing.   |  |  |  |
|                               | • Rinse skin immediately with plenty of water for 15 – 20 minutes.   |  |  |  |
|                               | • Call a poison control center or doctor for treatment advice.   |  |  |  |
| If inhaled                    | Move person to fresh air.  |  |  |  |
|                               | • If person is not breathing, call 911 or an ambulance, then give artificial respiration,  |  |  |  |
|                               | preferably by mouth-to-mouth, if possible.   |  |  |  |
|                               | Call a poison control center or doctor for further treatment advice.   |  |  |  |
| If swallowed                  | Call poison control center or doctor immediately for treatment advice  |  |  |  |
|                               | <ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>   |  |  |  |
| 1. A.                         | • Do not induce vomiting unless told to do so by the poison control center or doctor.  |  |  |  |
|                               | <ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>  |  |  |  |
|                               | HOT LINE NUMBER  |  |  |  |
| These also and device and the | and the state of t |  |  |  |

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.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers/loaders and applicators must wear a dust must filtering respirator meeting NIOSH standards of at least N-95, 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.

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intert.t.d.a! 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; 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 applied aerially. Suitable for use with ultra low-volume application equipment.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its tabeling 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 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:

- Coveralls
- Waterproof gloves
- Shoes plus socks

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses 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 O 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 O 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 O 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.

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

## **ORTHOPTERA**

Grasshoppers Mormon Crickets

## WHITEFLY

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

## <u>APHIDS</u>

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

## **THRIPS**

Greenhouse Thrips Pear Thrips Thrips palmi

#### **PSYLLIDS**

Pear Psylla

## **MEALYBUGS**

Citrus Mealybug Grape Mealybug

## **LEAFHOPPERS AND PLANTHOPPERS**

Grape Leafhopper Planthoppers Variegated Grape Leafhopper

## STEM-BORING LEPIDOPTERA

Cranberry Girdler Lesser Cornstalk Borer Southwestern Corn Borer

#### FOLIAGE-FEEDING LEPIDOPTERA

Cabbage Looper Imported Cabbage Worm

## **LEAF-FEEDING BEETLES**

Bean Leaf Beetle Colorado Potato Beetle Cucumber Beetles Flea Beetles

#### SCARAB BEETLES

Atenius White Grubs

## PLANT BUGS (HETEROPTERA) Chinch Bugs

Locusts Mole Crickets

Citrus Blackfly Giant Whitefly Silverleaf Whitefly

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

Cuban Laurel Thrips Potato/Onion Thrips Western Flower Thrips

Tomato/Potato Psylla

## Buffalo Grass Mealybug Longtailed Mealybug

Leafhoppers Potato Leafhopper Virginia Creeper Leafhopper

European Corn Borer Rice Stem Borer Sugar Cane Borer

## Diamondback Moth

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Cereal Leaf Beetle Corn Rootworm Elm Leaf Beetle

Green June Beetle

Fleahoppers

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Lace Bugs Seed Bugs Tarnished Plant Bug

## **WEEVILS**

Alfalfa Weevil Billbugs Citrus Root Weevil Fuller Rose Weevil Pepper Weevil Root Weevil Strawberry Root Weevil Vegetable Weevil Lygus Bug Stink Bugs

Apple Curculio Black Vine Weevil Cotton Boll Weevil Pecan Weevil Plum Curculio Rose Curculio Sweet Potnto Weevil

## CROPS ON WHICH MYCOTROL O MAY BE USED

## **VEGETABLES**

acerola artichoke atermoya bamboo shoots blackeyed peas broccoli raab cabbage carrots catjang celery chervil Chinese broccoli Chinese longbeans Chinese waxgourd citron melon crenshaw melon dasheen edamame escarole gherkin gourds (edible) honey balls kale lentils mango melon New Zealand spinach orach Oriental gai lon Oriental spinach parsnip pepper (all varieties) pineapple melon purslane rambutan rhubarb shallot spinach sweet potato tomatillo turnip zucchini

arracacha arugula avocado beans (all varieties) bokchoy Brussels sprouts cantaloupe casaba melons cauliflower celtuce chickpeas Chinese cabbage Chinese mustard chufa collards cress daikon eggplant fennel ginger groundcherry honeydew melon kohlrabi leren muskmelon hybrids/varietiesokra Oriental broccoli Oriental longbeans Oriental waxgourd peas (all varieties) Persian melon potato radish rape greens rutabaga snake melon squash (summer/winter) Swiss chard tomatoes watermelon

arrowroot asparagus balsam pear beet broccoli burdock carambols cassava celeriac chayote chicory Chinese gai lon Chinese spinach cilantro corn salad cucumber dock endive garlic golden pershaw melon guar horseradish leek lettuce mustard greens onion Oriental cabbage Oriental mustard 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

## TREE NUTS

almonds butternut chinquapin macadamia nut walnut

## AGRONOMIC CROPS

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

beech nut cashew filbert pecan

barley coffee flax hops millet peanuts rye soybeans sunflower tea triticale

## HERBS, SPICES AND EDIBLE FLOWERS

allspice basil caperbuds carnations chamomile chives cinnamon costmary dandelion fenugreek horehound marigolds mustard oregano anise borage caraway catnip chervil chrysanthemum clary cumin dill ginseng hyssop marjoram nasturtium pansies blueberry carob chironja coffee currant durian figs grapefruit kiwi limes lychee marionberry olives (all varieties) papaya pear plum pummelo raspberry sweet cherry youngberry

avocado

Brazil nut chestnut hickory nut pistachios

buckwheat corn (field, sweet, pop, silage seed, corn grown for meal/flour) oats potato safflower sugarbeets sweet corn teosinte wheat

balm burnet cardamom celery seed chicory cilantro/coriander coriander curry leaf fennel gladiolus mace mint nutmeg paprika

pennyroyal rosemary sage sesame tansy violets wormwood pepper (black/white) roses saffron spearmint tarragon wintergreen peppermint rue savory sweet bay leaf thyme woodruff

## 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 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

African violet anthurium asparagus sprengeri azalea bamboo begonia bougainvillea cacti calendula camellias ceanothus . cherro cineraria cordyline cottonwood crossandra cypress daisy dichondra Douglas fir Dusty Miller ferns firethorn foliage plants fuchsia gerbera gloxinia gypsophila hedera hickory hop bush hydrangea impatiens ivy Japanese boxwood juniper larch leasianthus lilac lobelia mandevilla Mediterranean fan palm monstera myrtle oak orchid palms pelargonium

ageratum arborvitae aster bald cypress barberry birch boxwood caladium calla lily carissa celosia Christmas cactus cleyera corylus avellana crabapple croton daffodil delphinium dieffenbachia dracaena elm ficus fittonia forsythia gardenia gerber daisy grape hackberry hemlock holly horsechesnut 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

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petunia photina pink podocarpus pothos ivy privet rhododendron salvia schlumbegera shrubby cinquefoil spathiphyllum sweet gum sycamore Texas sage verbena Virginia creeper willow zinnia

philodendron piggyback plant pittosporum poinsettia prayer plant pteris fern rose scabiosa sedum smoke tree spruce sweet pea syngonium tulip viburnum walnut yew

phlox pine planetree poplar primrose pyracantha rubber plant schefflera shrub verbena snapdragon stock sweet William laxus tulip tree vínca wandering Jew yucca

## **MIXING AND APPLICATION**

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

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

#### **Ground** Application

Typically apply ¼ quart 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.

Apply Mycotrol O up to a maximum of 3 quarts per acre for extreme insect pressure or dense foliage.

#### **Aerial Application**

Apply ¼ quart 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. 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      |                            |
|-----------------------|----------------------------|
| Imported cabbage worm |                            |
| Cabbage looper        | 1 quart of Mycotrol O/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. Do not exceed label dosage rates. 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**

## DOSAGE RATE FOR GREENHOUSE, SHADEHOUSE, INDOOR/OUTDOOR NURSERY

**High volume sprays:** Apply at a rate of up to 2 quarts of Mycotrol O per 100 gallons of spray volume in high volume sprays (2 tsp. or 0.33 fluid ounces of Mycotrol O 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 Spray Volume

| Whitefly, Mealybugs, / | Aphids  |
|------------------------|---|
| Thrips                 | l quart of Mycotrol O/100 gallons spray volume      |
| Other labeled insects  |   |
|                        | 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 O 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.

## DOSAGE RATE FOR SOIL APPLICATIONS IN ORCHARDS AND CONTAINER ORNAMENTALS

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

#### PHYTOTOXICITY

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

Mycotrol O is physically and biologically compatible with a wide range of insecticides and spray adjuvants. It is compatible with some fungicides in tank mixtures. Fungicides may kill the spores. No label dosage should be exceeded. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

<u>Adjuvants</u> 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 instructions. 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. 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 must be used in accordance with their labels.

<u>Compatibility with Fungicides</u> Mycotrol O is compatible in tank mix with some fungicides. Contact Laverlam International or your dealer for specific instructions 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.

Apply Mycotrol O undiluted (neat) or diluted for injection flow rate and irrigation volume. For best results, use one part water to one part Mycotrol O. If Mycotrol O is diluted, supply tank must be agitated to thoroughly mix Mycotrol O in water. Add water to supply tank, start agitation, and 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 quart to 1 quart of Mycotrol O per acre for most sprinkler chemigation applications. Apply up to 3 quarts of Mycotrol O per acre for high insect pressure or dense foliage. For corn, apply at a rate of 4 fluid ounces of Mycotrol O per acre.

For best results, time Mycotrol O chemigation with the end of the 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 <sup>1</sup>/<sub>4</sub> to <sup>1</sup>/<sub>2</sub> 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 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 just 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 quart to 3 quarts of Mycotrol O per acre for 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 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 O is diluted in water before injection into irrigation system. Spray tank agitation is not necessary if Mycotrol O 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 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 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 <sup>3</sup>/<sub>4</sub> 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 <sup>3</sup>/<sub>4</sub> 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

Do not contaminate water, food, or feed by storage and disposal.

## PESTICIDE STORAGE

Store in a cool, dry place. Avoid storage below freezing temperatures or above 85°F. 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

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

## CONTAINER DISPOSAL

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 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.