

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 7, 2021

Amy Plato Roberts Director of Regulatory Affairs, Americas Danstar Ferment AG / Lallemand Plant Care P.O. Box 990 Hailey, ID 83333

Subject: Pesticide Registration Improvement Act (PRIA) Labeling and Formulation Amendment –

Add a New Supplier of the Active Ingredient and a New Production Site for the Product;

Add and Expand Use Sites (i.e., Brassica Leafy Vegetables, Cereal Grains, Citrus, Cucurbits, Fruiting Vegetables, Hemp, Hops, and Leafy Vegetables); Add the OMRI

Logo; Revise the Directions for Use and Precautionary Statements

Product Name: Mycostop Biofungicide EPA Registration Number: : 64137-5

Application Date: 02/25/2021 Action Case Number: 00294053

Dear Ms. Roberts:

The amended labeling and Confidential Statement of Formulation (CSF) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

Please note that the record for this product currently contains the following acceptable CSF:

• Basic CSF dated 11/03/2021

Any CSFs other than that listed above are superseded/no longer valid.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling

Page 2 of 2

EPA Reg. No.: 64137-5 Action Case No. 00294053

or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Susanne Cerrelli by telephone at (703) 308-8077 or via email at cerrelli.susanne@epa.gov.

Sincerely,

Alexandra Boukedes, Acting Senior Regulatory Advisor Microbial Pesticides Branch Biopesticides and Pollution Prevention Division (7511P)

Office of Pesticide Programs

Alxandera Boukedes

Enclosure:

# **MYCOSTOP® BIOFUNGICIDE**

Alternate Brand Name: LALSTOP® K61 WP



(For Organic Production) (For Use in Organic Production) (Can be used in organic production)



 Active Ingredient:
 Streptomyces sp. strain K61\*
 35.0%

 Other Ingredients:
 65.0%

 Total:
 100.0%

# Keep Out of Reach of Children CAUTION

See (booklet) (back panel) for First Aid, additional Precautionary Statements and Directions for Use.

**EPA Reg. No.:** 64137-5

(Batch)(Lot) No: (See printing on bag) (Use Before) (Production Date)

**Net Weight: XXXX** 

# ACCEPTED

Dec 07, 2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 64137-5

# Manufactured for:

Danstar Ferment AG / LALLEMAND PLANT CARE Poststrasse 30 Zug CH-6300 Switzerland

#### **Marketing Company:**

Lallemand Specialties Inc. / LALLEMAND PLANT CARE 6120 West Douglas Avenue
Milwaukee, WI 53218
United States
www.lallemandplantcare.com



EPA Est. No.: 91225-EST-1

<sup>\*</sup> Contains a minimum of 1.0 x108 CFU/g of product

FIRST AID		
If inhaled	<ul> <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 poison control center or doctor for further treatment advice.</li> </ul>	
If in eyes	<ul> <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>	
If on skin or clothing	<ul> <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>	
HOTI INE NUMBER		

Have the product container or label with you when calling a poison control center or doctor,or going for treatment. For medical emergencies, call the poison control center at 1-800-222-1222.

{Note: The first aid statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.}

#### PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION: Harmful if inhaled. Avoid breathing dust or spray mist. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks
- protective eyewear

Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any, R, or P filter; OR a NIOSH-approved powered air- purifying respirator with an HE filter. (Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.)

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

**ENGINEERING CONTROLS:** When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### **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:** 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 when disposing of equipment washwater or rinsate.

#### **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.

### 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 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.

Do not enter or allow workers to enter the treated greenhouse or enclosed space until the ventilation requirements in 40 CFR 170.405(b)(3) have been met and the REI of 4 hours has expired. Until then, only handlers wearing the appropriate personal protective equipment can enter the greenhouse or enclosed space.

**EXCEPTION:** If the product is soil incorporated or soil injected, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Protective eyewear
- Waterproof gloves
- Shoes plus socks
- a NIOSH-approved particulate filtering facepiece respirator with any R, or P filter; <u>OR</u> a NIOSH-approved elastomeric particulate respirator with any, R, or P filter; <u>OR</u> a NIOSH-approved powered air- purifying respirator with an HE filter

#### 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.

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

[This reference may appear anywhere on the label "\*Not for Use in California"]

#### PRODUCT INFORMATION

Mycostop® Biofungicide can be used for the control of seed rot, root and stem rot and wilt diseases caused by *Fusarium*, *Alternaria*, *Macrophomina\**, *Phomopsis*, *Pythium*, *Phytophthora* and *Thielaviopsis* spp. in labeled crops. Mycostop Biofungicide can also be used for the control of seed rot, root rot and stem rot and wilt diseases caused by *Fusarium*, *Microdochium*, *Typhula*, and *Pythium* spp. in turf.

Mycostop Biofungicide has shown suppression of Botrytis Gray Mold, Blight, and root rots caused by *Aspergillus, Pythium, Phytophthora* and *Rhizoctonia* in labeled crops.

Mycostop Biofungicide has shown suppression of Early Blight (*Alternaria solani*) and Anthracnose (*Colletotrichum coccodes*) on greenhouse Solanaceous plants; suppression of *Septoria* on tree seedlings in the field\*; and control of Dry Bubble (*Lecanicillium fungicola*) in mushrooms in mushroom cultivation\*.

Mycostop Biofungicide can be used as a seed treatment for seed or soil-borne damping-off and early root rot of labeled crops.

### **USE INSTRUCTIONS**

Apply Mycostop® Biofungicide as a seed treatment (applied on farm at planting or as a commercial liquid or dry seed treatment), by spraying or drenching the growth substrate or soil, by incorporation into a growth substrate or soil, as a dip, as a foliar spray, or by hydroponic or chemigation application in the field or greenhouse as an aqueous suspension.

**Mixing Instructions -** To make a suspension of Mycostop® Biofungicide, mix in a small volume of water, such as 0.25-1.0 gallon, and agitate sufficiently to evenly disperse product before diluting to final volume. Agitate final suspension frequently enough during application to keep evenly mixed. Apply the suspension as a dip, drench, spray, via drip or sprinkler chemigation, subirrigation, or incorporation in potting media. Use the suspension within 1/2 day of preparation.

Mycostop Biofungicide has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

**Tank mixing -** Do not combine Mycostop Biofungicide in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically and chemically compatible, effective, and non-injurious under your use conditions. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

To ensure compatibility of tank-mix combinations, they must be evaluated prior to use. To determine the physical and chemical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to one quart of water with agitation. Add dry formulations first, then flowables, and then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray or mixing tank. Consult your Lallemand Plant Care representative for more information about compatibility with other products.

**Seed Treatments**: This product does not contain dye. All seed treated commercially and onsite with this product must be colored with an EPA-approved dye or colorant of a suitable color to prevent accidental use as food for humans or feed for animals. The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information: "This seed has been treated with Mycostop® Biofungicide. Do not use for food, feed or oil purposes."

**Integrated Disease and Pest Management Programs:** Mycostop Biofungicide can be used in integrated disease management programs. Always check the compatibility of Mycostop Biofungicide and other biological fungicides or chemical pesticides with your local distributor or Lallemand Plant Care representative.

#### **APPLICATION RATES**

Application methods listed apply to all crops unless otherwise specified.

#### Pre-Harvest Interval (PHI) = 0 DAYS

Use this table with (groups of crops in the table on the next page) (the following crop table).

APPLICATION METHOD	APPLICATION RATE, TIMING, FREQUENCY, AND OTHER APPLICATION INSTRUCTIONS
Cutting, Bare-Root,	0.014–0.14 oz / <b>1 gal</b> (0.4–4 g / 1 gal)
Bulb, Corm,	0.14–1.4 oz / <b>10 gal</b> (4–40 g / 10 gal)
Rhizome, Seed	
Piece, Tuber, or	Apply by dipping plant material in the suspension prior to planting.
Transplant Dip,	
Spray, or Seed	
Soak	

Root Piece, Seed	1 – 6 oz / 100 lb (28 - 227 g / 100 lb) of root pieces, seed pieces or tubers.
Piece or Tuber Coat	Apply by dusting or coating. Plant within 48 hours.
Dry Seed Treatment	Bulb Vegetables: 3 – 16 oz / cwt seed (43 – 255 g / 100 lb seed) or 0.75 – 4 oz / cwt bulbs (14 – 113 g / 100 lb bulbs)
	Bulb and Corm Ornamentals: 0.75 – 4 oz / cwt bulbs (14 – 113 g / 100 lb bulbs)
	Cereals, Cucurbits, Legumes and Pulses, Non-grass Animal Feeds and Forage, and Turfgrass: 3 – 16 oz / cwt seed (43 – 255 g / 100 lb seed)
	Fruiting Vegetables, Herbs, Spices, Mint, Leafy Greens, Brassica and Cole Vegetables, Asparagus and Ornamentals: 0.04 – 4 oz / lb seed (1.1 – 113 g / lb seed)
	Oilseed crops: 1.5 – 6 oz / cwt seed (57 – 227 g / 100 lb seed)
	Root and Tuber Vegetables: 1.5 – 9 oz / cwt seed (43 – 255 g / 100 lb seed)
	Dry mix with seed, bulbs or corms in a planter box or suitable clean and dry mixing container. Do not treat damp or wet plant material unless it will be planted soon after treatment. Do not store treated plant material more than one week. Avoid storing treated plant material above 75 °F (24 °F).
Soil-Spray or Drench for Small Seedlings	0.1–0.4 oz / <b>1000 ft²</b> (2.3–10.4 g / 1000 ft²) 3.5–16 oz / <b>acre</b> (100–454 g / acre)
<b>3</b> 0	Apply in sufficient water. Follow with normal irrigation to adequately disperse the product into soil or growing medium profile. Make first application after seeding/sticking/transplanting and repeat every 2 – 6 weeks or as needed.
Soil-Spray or	0.004–0.07 oz / <b>100 ft²</b> (0.1–2.1 g / 100 ft²)
Drench for Transplanted and	0.04–0.7 oz / <b>1000 ft²</b> (1.1–21 g / 1000 ft²) 1.75–32 oz / <b>acre</b> (50–907 g / acre)
<b>Production Crops</b>	
	Apply in sufficient water. Follow with normal irrigation to adequately disperse the product into soil or growing medium profile. Make first application after seeding/sticking/transplanting and repeat every 2 – 6 weeks or as needed.
Banded, In- Furrow or Side- Dress Application	0.004-0.04 oz / $100$ ft <sup>2</sup> ( $0.1-2.1$ g / $100$ ft <sup>2</sup> ). Apply in a minimum of 3 fl oz of water or nutrient solution per $100$ ft <sup>2</sup> prior to or at seeding or transplanting.

	0.04-0.4 oz / $1000$ ft <sup>2</sup> (1–21 g / $1000$ ft <sup>2</sup> ). Apply in a minimum of 30 fl oz of water or nutrient solution per $1000$ ft <sup>2</sup> prior to or at seeding or transplanting.
	1.75–16 oz / acre (50–454 g / <b>acre</b> ). Apply in a minimum of 10 gallons of water or nutrient solution per acre prior to or at seeding or transplanting.
	Repeat applications every 2 –6 weeks or as needed. Follow with normal irrigation to adequately disperse the product into the soil and root zone.
Greenhouse Drip Irrigation, Chemigation, Hydroponic and NFT Irrigation	0.004–0.07 oz / 100 ft² (0.1–2.1 g / <b>100 ft²</b> ) 0.04–0.7 oz / 1000 ft² (1.1–21 g / <b>1000 ft²</b> ) 0.2–0.9 oz / 1000 plants (5–25 g / <b>1000 plants</b> )  Make first application after seeding/sticking/transplanting and repeat every 2 – 6 weeks or as needed. See CHEMIGATION USE DIRECTIONS.
Field Drip Irrigation and Chemigation	0.004–0.07 oz / <b>100 ft</b> <sup>2</sup> (0.1–2.1 g / 100 ft <sup>2</sup> ) 0.04–0.7 oz / <b>1000 ft</b> <sup>2</sup> (1.1–21 g / 1000 ft <sup>2</sup> ) 1.75–32 oz / <b>acre</b> (50–907 g / acre) 1.75–9 oz / 10,000 plants (50–250 g / <b>10,000 plants</b> )
	Apply in sufficient water. Make first application after seeding/sticking/transplanting and repeat every 2 – 6 weeks or as needed. See CHEMIGATION USE DIRECTIONS.
Growing Medium Soil Incorporation	0.04–0.07 oz / yd³ (1–2 g / yd³) for incorporation on-site and/or use within 1 week after incorporation.
	$0.2-1.75$ oz / yd $^3$ (7–50 g / yd $^3$ ) for incorporation into growing media that will be stored for more than 1 week after incorporation.
Foliar Spray for certain crops (see Crop Table)	0.007–0.028 oz / <b>gal</b> (0.2–0.8 g / gal) per 100 – 500 sq. ft. 0.7–2.8 oz / <b>100 gal</b> (20–80 g / 100 gal) per 0.25 – 1 acre  Spray thoroughly to all above-ground plant parts and pruning wounds and ensure complete coverage for disease prevention. Spray to wet or glisten
	but not to run-off using a fine droplet size. Use a low rate of a non-ionic surfactant when necessary.
	For fogging (non-thermal fogging only) – make a 0.1% suspension (0.13 oz. / gal) and apply as a fog spray at a rate of 0.6 – 1 gallons of suspension per 10,000 ft <sup>2</sup> crop area.
	Make first application when conditions are favorable for disease. Repeat applications every 5-10 days or as needed.

	<b>USE RESTRICTION:</b> The foliar spray method of application is not for use on berries and small fruits, cereal grain, cover, forage, herbs, spices and mints, oilseed, soybean and pulse crops, citrus fruits, pome fruits, stone fruits, tobacco, tree nuts, tree fruit and miscellaneous crops.
Mushroom	0.02-0.14 oz / <b>100 ft²</b> (0.5-4 g / 100 ft²)
	0.2–1.4 oz / <b>1000 ft²</b> (5–40 g / 1000 ft²)
Drench	
	Apply as a directed spray or substrate drench to prevent disease. Make first
	application when conditions are favorable for disease. Repeat applications as needed for control.
Turfgrass Soil-	0.01–0.2 oz / <b>100 ft²</b> (0.4–5 g / 100 ft²)
Spray or Drench	0.1–1.75 oz / <b>1000 ft²</b> (4.2–50 g / 1000 ft²)
	3.5–76 oz / acre (100 g – 2 kg / acre)
	Apply in sufficient water. Follow with normal irrigation to adequately disperse
	the product into the soil and root zone. Make first application after seeding or transplanting sod and repeat every 2 – 6 weeks or as needed according to
	environmental conditions and disease pressure.
	<u>'</u>

Use lower rates for lower disease pressures and/or lower plant densities, and higher rates for higher disease pressures and/or higher plant densities.

# CROPS\*

Beans, lentils, and peas

Berries and small fruits, including: blackberry, blueberry, cranberry, currant, elderberry, gooseberry, huckleberry, kiwifruit, loganberry, raspberry, strawberry, grape (e.g., table and wine). **All methods of application allowed except for foliar spray.** 

Cereal grain, cover, forage, oilseed, soybean and pulse crops, including: alfalfa, barley, canola, chickpea, corn, lentil, millet, oats, pea, rice, rye, sorghum, soybean, safflower, sunflower, triticale, wheat. ). **All methods of application allowed except for foliar spray.** 

Citrus fruits, including: citrus hybrids, grapefruit, kumquat, lemon, lime, orange, pummelo, satsuma, mandarin. All methods of application allowed except for foliar spray.

Cucurbit vegetables, including: cucumber, cantaloupe, melon, gourd, pumpkin, squash (e.g., butternut, winter, zucchini), watermelon

Flowers, bedding plants, foliage and potted plants, and ornamentals, including: acchillea, African violet, ageratum, aloe, alyssum, amaryllis, anemone, anthurium, aster, azalea, begonia, calceolaria, campanula, carnation, centaurea, cerastium, chrysanthemum, cineraria, coleus, cyclamen, daffodil, dahlia, daisy, delphinium, dianthus, dieffenbachia, dracaena, fern, freesia, fuchsia, gaillardia, gazania, geranium, gerbera, gladiolus, gloxinia, gypsophila, hedera, hibiscus, hyacinth, impatiens, iris, kalanchoe, liatris, lily, lobelia, marigold, matthiola, monarda, myrtle, New Guinea impatiens, nigella, pansy, pelargonium, petunia, phlox, poinsettia, poppy, primrose, ranunculus, rhododendron, rose, rudbeckia, salvia, sansevieria, sedum, senecio, sinningia, spathiphyllum, statice, sweet pea, tulip, verbena, vinca, zinnia
Fruiting vegetables, including: eggplant, pepper (e.g., bell, sweet, and hot), okra, tomatillo, tomato

Herbs, spices, and mints, including: aniseed, basil, caraway, chive, dill, fennel, lavender, marjoram, oregano, parsley, rosemary, sage, savory, thyme. **All methods of application allowed except for foliar spray.** Hydroponic crops: cucumber, lettuce and other leafy greens, herbs and spices, pepper, tomato, strawberry, eggplant, microgreens

Leafy vegetables, brassica (cole) leafy vegetables, and other vegetables, including:

Leafy vegetables – arugula, celery, endive, fennel, lettuce (e.g., Head and leaf), parsley, radicchio, rhubarb, spinach, Swiss chard, and watercress / Brassica (cole) leafy vegetables – broccoli, Brussels sprouts, cabbage, cauliflower, Chinese cabbage, collards, kale, kohlrabi, mustard greens / Other vegetables – asparagus, salsify

### Peanut

Pome fruits, including: apple, pear, quince. All methods of application allowed except for foliar spray. Stone fruits, including: apricot, cherry (e.g., sweet and tart), nectarine, peach, plum, prune (fresh). All methods of application allowed except for foliar spray.

Tobacco. All methods of application allowed except for foliar spray.

Trees, shrub seedlings, and shadehouse and outdoor nursery crops, including: arborvitae, ash, azalea, beech, birch, buckeye, cactus, chestnut, crabapple, crepe myrtle, deciduous trees, (e.g., maple and oak), dogwood, fir, forest trees, fruit trees, hemlock, juniper, larch, lilac, herbaceous ornamentals, ornamental grasses, ornamental palm, pine, rhododendron, shrubs, spruce, vine crops, woody ornamentals

Tree nuts, including: almond, beech nut, Brazil nut, butternut, cashew, chestnut, coconut, filbert, hickory nut, macadamia nut, pecan, pistachio, and walnut. **All methods of application allowed except for foliar spray.** 

Root, tuber, and bulb vegetables, including: beet (e.g., garden and sugar), carrot, cassava, celeriac, chicory, Chinese artichoke, chive, dasheen, garlic, ginger, ginseng, horseradish, Jerusalem artichoke, leek, onion, parsnip, potato, radish, rutabaga, salsify, shallot, sweet potato, turmeric, turnip, turnip-rooted, chervil, and yam

Turf, including: lawns, turf grown for seed and sod, turf greens, sports turf, municipal turf, sod farms

#### Hemp

Miscellaneous crops: avocado, banana, coffee, cotton, globe artichoke, hops, mushrooms, olive, other flowering plants and bedding plants, papaya, pineapple, pitaya (Dragonfruit), plantain, tea. **All methods of application allowed except for foliar spray.** 

# \*REFER TO PREVIOUS (TABLE) (PAGE) FOR APPLICATION METHODS, RATES, TIMINGS, FREQUENCIES AND OTHER INSTRUCTIONS

# CHEMIGATION USE DIRECTIONS General Requirements

- 1) Apply this product only through drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) 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.

5) 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.

# Specific Requirements for Chemigation Systems Connected to Public Water Systems

- 1) 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.
- 2) 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 flow 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.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4) 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.
- 6) 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.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

# **Specific Requirements for Drip (Trickle) Chemigation**

- 1) 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.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3) The pesticide injection pipeline must also contain a functional, normally closed, solenoidoperated 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.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) 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 filled with a system interlock.

7) Do not apply when wind speed favors drift beyond the area intended for treatment.

# **Application Instructions for All Types of Chemigation**

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Make sufficient stock solution of the product to allow for even injection into irrigation systems during the irrigation cycle. For preparing a stock solution, use clean water with a neutral pH and devoid of salts and chemicals.
- 4) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Utilize agitation to keep solution in suspension. Apply continuously for the duration of the water application. For infrequent but long irrigation cycles, application can be made during the middle third of water application to assure adequate wetting of soils prior to application and adequate dispersal of spores into the root zone.
- 5) Apply in sufficient amount of water to move into root zone. Repeat every 2 6 weeks for disease control, depending on disease pressure and new plant growth.
- 6) When applying through sprinkler irrigation systems for soil-borne disease control, use the high rate and time the application for the early stages of crop growth when crop canopy is sparse.

#### STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container in a cool, dry place. Avoid overheating.

**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 Handling:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. (For instances where state and local ordinances do allow burning: If burned, stay out of smoke.)

# **NOTICE TO USER**

Lallemand Specialties Inc. / LALLEMAND PLANT CARE warrants only that this product conforms to the product description on this label and is reasonably fit for the purposes set forth in the Directions for Use when used in accordance with them. However, ineffectiveness or other unintended consequences may result because of such factors as the use, storage or handling of the product contrary to the label instructions, all of which are beyond the control of Lallemand Specialties Inc. / LALLEMAND PLANT CARE. To the extent consistent with applicable law, Lallemand Specialties Inc. / LALLEMAND PLANT CARE shall not be liable for indirect or



# **OPTIONAL LABEL CLAIMS:**

- For Turf and Agronomic, Vegetable and Ornamental Crops
- For use on green plants
- For use on flowering plants
- Biofungicide
- Biological Fungicide
- Fungicide
- Improves plant health
- Controls/Prevents soil-borne pathogens
- Controls/Prevents foliar pathogens
- Potential Growth Enhancement/Yield Increase Mycostop Biofungicide has been shown to promote the growth and yield of plants even in healthy crops. Repeat the treatment monthly during the life of the crop