U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Biopesticides and Pollution Prevention Division (7511P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
_X_ Registration
___ Reregistration
(under FIFRA, as amended)

EPA Reg. Number:	**Date of Issuance:**
82074-15	7/1/2021

Term of Issuance:
Unconditional

Name of Pesticide Product:
Biostat 2% WP

Name and Address of Registrant (include ZIP Code):
Certis USA LLC
9145 Guilford Road, Suite 175
Columbia, MD 21046

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product, always refer to the above EPA Registration Number.

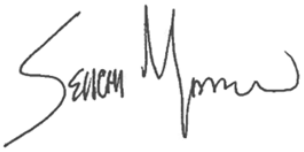
On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.

Signature of Approving Official:



Seiichi Murasaki, Branch Chief
Microbial Pesticides Branch
Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs

Date:
7/1/2021

2. Make the following labeling change before you release this product for shipment:

    - Revise the EPA Registration Number to read, "EPA Reg. No. 82074-15."

3. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

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 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. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 06/30/2021

Any CSFs other than those listed above are superseded.

If you have any questions, please contact Alex Boukedes by phone at (703) 347-0305 or via email at boukedes.alexandra@epa.gov.

Enclosure: Stamped Label

Biostat® 2% WP

Bionematicide

{Alternate Brand Names: None}

Active Ingredient: *Purpureocillium lilacinum* strain PL11*.....2.0%
Other Ingredients:.....98.0%
Total: 100.0%
* Contains a minimum of 1.5 x 10^9 viable spores/g of product

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
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 treatment advice
HOTLINE NUMBER Have the product container or label with when calling a poison control center or doctor or going for treatment. You may also contact the poison control center at 1-800-222-1222 for emergency medical treatment information.	

Manufactured by:
Certis USA LLC
9145 Guilford Road, Suite 175
Columbia, MD 21046

EPA Reg. No.: 82074-
EPA Est. No.:
[Batch] {or} [Lot] No:
Net Weight:

ACCEPTED
Jul 01, 2021
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 82074-15

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if inhaled. Avoid breathing dust or spray mist. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

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

Mixer/loaders and applicators must wear:

- NIOSH-approved particulate respirator with an R or P filter with NIOSH approval number prefix TC-84A; or
- NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C
- Repeated exposure 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR §170.607(d-f)], 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 break-down.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.

This product may be toxic and/or pathogenic to bees and other pollinating insects exposed to direct treatment. Do not apply this product while bees or other pollinating insects are actively visiting the treatment area. This product may be toxic and/or pathogenic to certain nontarget aquatic invertebrates. Minimize spray drift away from target area to reduce effects to bees, other pollinating insects, and aquatic invertebrates.

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 12 hours.

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

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.

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.

Read the entire label before using.

PRODUCT INFORMATION

Biostat® 2% WP is a biological nematicide containing spores of the soil fungus, *Purpureocillium lilacinum* strain PL11, that acts by parasitizing plant-parasitic nematodes. When used as part of an Integrated Pest Management (IPM) system, Biostat® 2% WP reduces crop damage caused by plant-parasitic nematodes as listed below.

In order to work effectively, Biostat® 2% WP must come into direct contact with nematodes in the soil profile or root zone as quickly as possible after application. Measures that can help maximize contact of the spores with the target pests include (1) light pre-irrigation to moisten dry soil, (2) inclusion of a soil-penetrating adjuvant in the application, and (3) post-application irrigation to "water in" the product.

Biostat® 2% WP has a 0-day pre-harvest interval (PHI) and may be applied up to and on the day of harvest.

FOR CONTROL OF CROP DAMAGE CAUSED BY THE FOLLOWING PESTS:

- Awl nematodes (*Dolichodorus* species)
- Burrowing nematode (*Radopholus similis*)
- Citrus nematode (*Tylenchulus semipenetrans*)
- False root knot nematodes (*Naccobus* species)
- Lance nematodes (*Hoplolaimus* species)
- Lesion nematodes (*Pratylenchus* species)
- Reniform nematode (*Rotylenchulus reniformis*)
- Ring nematodes (*Criconemoides, Criconemella* and *Mesocriconema* species)
- Root-knot nematodes (*Meloidogyne* species)
- Spiral nematodes (*Helicotylenchus* and *Rotylenchus* species)
- Stem nematode (*Ditylenchus dipsaci*)
- Sting nematode (*Belonolaimus longicaudatus*)
- Stubby root nematodes (*Trichodorus* and *Paratrichodorus* species)
- Stunt nematodes (*Tylenchorhynchus* species)

MIXING DIRECTIONS:

- Determine the total volume of water needed for application.
- Fill the spray tank to approximately ¼ (one-fourth) of the desired volume with clean water and begin agitation.
- Add the specified amount of Biostat® 2% WP to the tank. Do not allow spray mixture to stand overnight or for prolonged periods. Finish filling the tank to the desired volume that provides maximum coverage.
- Maintain agitation throughout the mixing and application process.
- For best results, prepare the mixture immediately before use.

TANK MIXING:

- Biostat® 2% WP can be tank-mixed with adjuvants and other pesticides. Such mixtures are generally not deleterious to performance subject to the precautions and restrictions listed below.
- Test the physical compatibility of unfamiliar mixtures by combining small amounts of the products in the intended proportions and mix order before actual use ("jar test"). Observe the most restrictive labeling limitations and precautions of all products used in mixtures. Mix only with products for which such mixing is permitted by the label for that product.
- For information on which adjuvants and pesticides can be mixed with Biostat® 2% WP without harming the beneficial fungus it contains, contact your Technical Sales Representative or the Manufacturer.
- For preparation of a tank mix, add the other products first. However, if the other products are likely to cause foaming, add them after filling up the tank to the desired volume of water. Then add Biostat® 2% WP.

PRECAUTIONS/RESTRICTIONS:

- **DO NOT MIX** Biostat® 2% WP with chlorothalonil, mancozeb, triazole, or strobilurin fungicides.
- **DO NOT MIX** with strong acids, bases or other caustic materials. Maintain a neutral or slightly acidic pH (6-7) in the spray tank.

CROPS

CROP GROUP 1: ROOT AND TUBER VEGETABLES

Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; beet, garden; beet, sugar; burdock, edible; canna, edible; carrot; cassava, bitter and sweet; celeriac; chayote (root); chervil, turnip-rooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; potato; radish; radish, oriental (daikon); rutabaga; salsify; salsify, black; salsify, Spanish; skirret; sweet potato; tanier; turmeric; turnip; yam bean; yam, true

CROP GROUP 3-07: BULB VEGETABLES

Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these

CROP GROUP 4-16: LEAFY VEGETABLES (EXCEPT WATERCRESS)

Amaranth, Chinese; amaranth, leafy; arugula; aster, Indian; blackjack; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale; cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; collards; corn salad; cosmos; cress, garden; cress, upland; dandelion, leaves; dang-gwi, leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; good king henry; hanover salad; huauzontle; jute, leaves; kale; lettuce, bitter; lettuce, head; lettuce, leaf; maca, leaves; mizuna; mustard greens; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio; radish, leaves; rape

greens; rocket, wild; shepherd's purse; spinach; spinach, Malabar; spinach, New Zealand; spinach, tanier; Swiss chard; turnip greens; violet, Chinese, leaves; cultivars, varieties, and hybrids of these commodities

CROP GROUP 5-16: BRASSICA HEAD AND STEM VEGETABLES

Broccoli; Brussels sprouts; cabbage; cabbage, Chinese, napa; cauliflower; cultivars, varieties, and hybrids of these commodities

CROP GROUP 8: FRUITING VEGETABLES (EXCEPT CUCURBITS)

Eggplant; groundcherry (Physalis spp); pepino; pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); tomatillo; tomato

CROP GROUP 9: CUCURBIT VEGETABLES

Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

CROP GROUP 10-10: CITRUS FRUIT

Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these

CROP GROUP 11-10: POME FRUIT

Apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these

CROP GROUP 12-12: STONE FRUIT

Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these

CROP GROUP 13-07: BERRY AND SMALL FRUIT*

Amur river grape; aronia berry; bayberry; bearberry; bilberry; blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry,

coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Orgeon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); blueberry, highbush; blueberry, lowbush; buffalo currant; buffaloberry; che; Chilean guava; chokecherry; cloudberry; cranberry*; cranberry, highbush*; currant, black; currant, red; elderberry; European barberry; gooseberry; grape; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, fuzzy; kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; mulberry; muntries; native currant; partridgeberry; phalsa; pincherry; raspberry, black and red; riberry; salal; schisandra berry; sea buckthorn; serviceberry; strawberry; wild raspberry; cultivars, varieties, and/or hybrids of these

* Do not apply to cranberries or highbush cranberries when bog or field is flooded.

CROP GROUP 14-12: TREE NUTS

African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; Okari nut; Pachira nut; peach palm nut; pecan; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these

CROP GROUP 19: HERB AND SPICES

Allspice; angelica; anise (seed); anise, star; annatto (seed); balm (lemon balm); basil; borage; burnet; camomile; caper buds; caraway; caraway, black; cardamom; cassia bark; cassia buds; catnip; celery seed; chervil (dried); chive; chive, Chinese; cinnamon; clary; clove buds; coriander leaf (cilantro or Chinese parsley); coriander seed (cilantro); costmary; culantro (leaf); culantro (seed); cumin; curry (leaf); dill (dillweed); dill (seed); fennel (common); fennel, Florence (seed); fenugreek; grains of paradise; horehound; hyssop; juniper berry; lavender; lemongrass; lovage (leaf); lovage (seed); mace; marigold; marjoram (includes sweet or annual marjoram, wild marjoram or oregano, and pot marjoram); mustard (seed); nasturtium; nutmeg; parsley (dried); pennyroyal; pepper, black; pepper, white; poppy (seed); rosemary; rue; saffron; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; vanilla; wintergreen; woodruff; wormwood

CROP GROUP 24: TROPICAL AND SUBPROPICAL FRUIT, INEDIBLE PEEL

Abiu; aisen; akee apple; atemoya; avocado; avocado, Guatemalan; avocado, Mexican; avocado, West Indian; bacury; bael fruit; banana; banana, dwarf; binjai; biriba; breadfruit; Burmese grape; canistel; cat's-eyes; champedak; cherimoya; cupuacu; custard apple; dragon fruit; durian; elephant-apple; etambe; granadilla; granadilla, giant; ilama; inga; jackfruit; jatoba; karuka; kei apple; langsat; lanjut; longan; lucuma; lychee; mabolo; madras-thorn; mammy-apple; manduro; mango; mango, horse; mango, Saipan; mangosteen; marang; marmaladebox; matisia; mesquite; mongongo, fruit; monkey-bread-tree; monstera; nicobar-breadfruit; paho; pandanus; papaya; passionflower, winged-stem; passionfruit; passionfruit, banana; passionfruit, purple; passionfruit, yellow; pawpaw, common; pawpaw, small-flower; pelipisan; pequi; pequia; persimmon, American; pineapple; pitahaya; pitaya; pitaya, amarillo; pitaya, roja; pitaya, yellow; plantain; pomegranate; poshte; prickly pear, fruit; prickly pear, Texas, fruit; pulasan; quandong; rambutan; saguaro;

sapodilla; sapote, black; sapote, green; sapote, mamey; sapote, white; sataw; satinleaf; screw-pine; Sierra Leone-tamarind; soncoya; soursop; Spanish lime; star apple; sugar apple; sun sapote; tamarind-of-the-Indies; velvet tamarind; wampi; white star apple; wild loquat; cultivars, varieties, and hybrids of these commodities

MISCELLANEOUS CROPS

Artichoke, globe; coffee; cotton; hemp; ornamentals (cut flowers and bulbs); peanut; tobacco; turf

APPLICATION RATES AND TIMING

Indoor and Outdoor Uses on: Crop Groups:1: Root and Tuber Vegetables [except potato, sugar beet, sweet potato]; 3-07: Bulb Vegetables; 4-16: Leafy Vegetables (except Watercress); 5-16: Brassica Head and Stem Vegetables; 8: Fruiting Vegetables (except Cucurbits); 9: Cucurbits; 13-07: Berry and Small Fruit—Strawberry Only; 19: Herbs and Spices; 24 Tropical and Subtropical Fruit Crops (Inedible Peel)—Pineapple Only Miscellaneous Crops: Artichoke, Globe; Ornamentals (cut flowers and bulbs); Tobacco	
Application Type/Timing	Application Rates/Instructions
Before planting/ Transplanting (Field Soil)	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods. Use sufficient water to assure adequate coverage. • *Drench, drip (trickle) or sprinkler*: A soil wetting agent can be used to enhance penetration of spores into the root zone. • *Surface spray with incorporation*: Apply in 40 – 100 gallons of water per acre followed by incorporation using light tillage. • *Surface spray with irrigation*: Apply in 20 – 40 gallons of water per acre followed by overhead irrigation. Use enough irrigation water to wet the soil into the root zone. • *Direct injection*: Inject product to anticipated root depth using shank or other soil injection equipment in 30 – 40 gallons water per acre. Pre–plant application may be either broadcast over an entire field or concentrated (banded) into planting rows. See “Instructions for Banded Applications” below. Apply when soil temperature at 4-inch depth is 60°F or higher. Bioactivity of Biostat® 2% WP is greatest at soil temperatures between 70° and 90°F. Apply to nematode-infested (non-fumigated) soil no more than 14 days before planting or transplanting. Follow up with application to the field soil **at or after** planting or transplanting. If the soil has been fumigated recently (within 2 weeks), make the initial Biostat® 2% WP application to transplants **just before** transplanting into the field, as described in the next section. Alternatively, apply Biostat® 2% WP to fumigated soil **at or after** planting or transplanting (see below).
Before transplanting (Flats/Pots/ Containers)	Mix 0.75 to 1.25 pounds of Biostat® 2% WP with 5 gallons of water and apply as a drench or coarse spray to 100 cubic feet of soil or other growth media in transplant flats, pots or other rooting containers. Follow the application with sufficient additional water (such as by drenching or overhead irrigation) to saturate the soil or rooting medium. Follow up with applications at 4-to-10-day intervals **at or after** transplanting, as needed (see below).
At/after planting/ transplanting (Field Soil)	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Drip (trickle) or overhead sprinkler application* • *Flood or furrow application*: Premix Biostat® 2% WP in a nurse tank with continued agitation and meter the Biostat® 2% WP into the irrigation water during the entire irrigation period. • *Banded spray*: Use 4” to 6” wide band applied in–furrow at planting (over or under the seed line). • *Drench*: Mix with transplant water and apply as a drench in the plant hole or furrow at transplanting. Thoroughly wet the soil into the root zone with sufficient water during or immediately after applications. Biostat® 2% WP can also be mixed with water and injected directly into the rooting zone using a shank or other injection equipment, preferably on both sides of the plant row. Repeat applications at 4 to 10 day intervals, as needed, to control plant-parasitic nematode populations during the crop period. A soil wetting agent can be used to enhance penetration of spores into the root zone.

Crop Groups: 10-10: Citrus Fruit; 11-10: Pome Fruit; 12-12: Stone Fruit; 13-07: Berry and Small Fruit*; 14-12: Tree Nuts; 24: Tropical and Subtropical Fruit, Inedible Peel Miscellaneous Crops: Coffee; hemp * For cranberry (including highbush), do not apply when bog or field is flooded.	
Application Type/Timing	Application Rates/Instructions
Multiple Trees, Bushes, or Vines (full or partial orchard/ plantation/ vineyard)	Apply 5 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Drip (trickle) or overhead sprinkler application*: Emitters may be buried, on the soil surface, or elevated. • *Soil-directed micro-irrigation application*: **DO NOT** use mist sprayers, which produce small droplets likely to drift. • *Injection*: Apply in 30 – 40 gallons of water per acre directly into the root zone using a shank or other injection equipment. • *Soil-directed spray*: Apply in 30 – 100 gallons per acre from stem to drip line (outer reaches of the branches or vines). Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots. A soil wetting agent can be used to enhance penetration of spores into the root zone. Make 2 applications, 4 to 10 days apart, every 2 - 4 months, or during root flush, as needed.
Individual Trees, Bushes or Vines	Mix 1.25 pounds of Biostat® 2% WP in 5 gallons of water and apply as a drench or spray to the soil from stem to drip line (outer reaches of the branches or vines). Five gallons of mix will treat up to 500 square feet of soil, or the area under approximately 5 mature trees or vines. Apply sufficient water during or immediately after application to thoroughly wet the soil into the root zone. Alternatively, applications can be made before or during rainfall to assist in movement to the roots. A soil wetting agent can be used to enhance penetration of spores into the root zone. Make 2 applications, 4 to 10 days apart, every 2 - 4 months, or during root flush, as needed.

Crop Group: 24: Tropical and Subtropical Fruit, Inedible Peel [except pineapple]	
Application Type/Timing	Application Rates/Instructions
At planting	For 250 plants: Mix 5 pound of Biostat® 2% WP in water (20 - 100 gallons per acre) and apply as a drench or coarse spray in the planting hole just before placing the plant in the hole and then around the base of each plant immediately after planting. Use conventional ground application equipment, backpack sprayers or hand-held dippers for these soil-directed applications. Water in with standard (quantity and equipment) irrigation to wet the soil into the root zone or apply before rainfall. A soil wetting agent can be used to enhance penetration of spores into the root zone.
Established plants	For 250 plants: Mix 5 pound of Biostat® 2% WP in water (20 - 100 gallons per acre). Apply suspension in a 6-inch radius to the soil around daughter suckers using conventional ground application equipment or backpack sprayers. Alternatively, apply through soil-directed micro-irrigation (see "Chemigation Instructions"). DO NOT use mist sprayers, which produce small droplets likely to drift. Water in with standard (quantity and equipment) irrigation to wet the soil into the root zone or apply before rainfall. A soil wetting agent can be used to enhance penetration of spores into the root zone. Apply every 4 months.

Miscellaneous Crop: Cotton	
Application Type/Timing	Application Rates/Instructions
Pre-plant incorporation (Prior to bed-forming)	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre to moist (if soil is not moist, apply prior to rainfall or pre-plant irrigation) soil prior to bed forming. Follow up with a post-emergent drench.
In-furrow application	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre into the furrow prior to planting. Apply into the seed furrow and cover with soil. If possible, apply prior to an at-planting irrigation. A soil wetting agent can be used to enhance penetration of spores into the root zone. Follow up with a post-emergent drench.
At minimum tillage—Post-plant irrigation or rainfall drench	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre to moist soil and water in the product immediately after planting. A soil wetting agent can be used to enhance penetration of spores into the root zone. Follow up with a post-emergent drench.
Post-emergence application (6^{th} to 7^{th} true leaf stage)	Apply 1.25 to 10 pounds of Biostat® 2% WP in 30 – 40 gallons of water per acre using shank or other soil injection equipment. Apply when cotton is in the 6th to 7th true leaf stage of growth by placing into the soil alongside the seed furrow. Application equipment can have either one or two coulters and knives per row. A soil wetting agent can be used to enhance penetration of spores into the root zone. This treatment will extend the suppression of nematode populations when applied during the growing season and after the pre-plant application of a soil fumigant, at-plant application of a contact nematicide or use of a seed treatment nematicide.

Miscellaneous Crop: Peanut	
Application Type/Timing	Application Rates/Instructions
Pre-plant incorporation (Prior to bed-forming)	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre to moist (if soil is not moist, apply prior to rainfall or pre-plant irrigation) soil prior to bed forming. Follow up with a pre-pegging application.
Pre-planting bed treatment	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre in a 6- to 8-inch band on top of the row (on double row peanuts in a 14- to 16-inch band) and incorporate thoroughly into the top 6 to 8 inches of moist soil (if soil is not moist, apply prior to rainfall or pre-plant irrigation). Follow up with a pre-pegging application.
In-furrow application	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre into the furrow prior to planting cotton. Apply into the seed furrow and cover with soil. If possible, apply prior to an at-planting irrigation. A soil wetting agent can be used to enhance penetration of spores into the root zone. Follow up with a pre-pegging application.
At minimum tillage—Post-plant irrigation or rainfall drench	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre to moist soil and water in the product immediately after planting. A soil wetting agent can be used to enhance penetration of spores into the root zone. Follow up with a pre-pegging application.
Post-planting (pre-pegging) drench	Apply 1.25 to 10 pounds of Biostat® 2% WP in a minimum of 20 gallons of water per acre. Spray onto soil at the base of the plants prior to rainfall or irrigation and prior to pegging. A soil wetting agent can be used to enhance penetration of spores into the root zone.

Crop Group 1: Root and Tuber Vegetables—Potato Only	
Application Type/Timing	Application Rates/Instructions
Before planting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre in a 14-inch banded or broadcast spray of 20 - 40 gallons water per acre while forming the rows / planting hills and incorporate thoroughly into the top 4-10 inches of moist soil. See “Instructions for Banded Application” below. Apply when soil temperature at 4-inch depth is 60°F or higher. Bioactivity of Biostat® 2% WP is greatest at soil temperatures between 70° and 90° F. Apply to nematode-infested (non-fumigated) soil no more than 14 days before planting. If the soil has been fumigated recently, apply Biostat® 2% WP to fumigated soil at planting.
At planting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 2% WP in a nurse tank with continued agitation and meter the Biostat® 2% WP into the irrigation water during the entire irrigation period. • *Banded spray*: Use 4” wide band applied in–furrow at planting (over or under the seed line). • *Drench*: Drench in-furrow at planting (over or under the seed line). See “Instructions for Banded Application” to determine application rate per 1,000 row ft.
After planting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 2% WP in a nurse tank with continued agitation and meter the Biostat® 2% WP into the irrigation water during the entire irrigation period. • *Sprinkler application*: Apply through overhead sprinkler irrigation in sufficient water to reach the root zone. • *Injection*: Apply in 30 – 40 gallons of water per acre directly into the root zone using a shank or other injection equipment. A soil wetting agent can be used to enhance penetration of spores into the root zone. Repeat applications at 4-to-10-day intervals as needed to control plant-parasitic nematode populations during the crop period.

Crop Group 1: Root and Tuber Vegetables—Sugar Beet Only	
Application Type/Timing	Application Rates/Instructions
Before planting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Overhead sprinkler*: A soil wetting agent can be used to enhance penetration of spores into the root zone. • *Surface spray with incorporation*: Apply to moist soil in 40 – 100 gallons of water per acre followed by incorporation using light tillage. • *Surface spray with irrigation*: Apply in 20 – 40 gallons of water per acre followed by overhead irrigation. Use enough irrigation water to wet the soil into the root zone. • *Direct injection*: Inject product to anticipated root depth using shank or other soil injection equipment in 30 – 40 gallons water per acre. Pre-plant applications may be either broadcast over an entire field or concentrated (banded) into planting rows. See "Instructions for Banded Application" below. Apply when soil temperature at 4-inch depth is 60°F or higher. Bioactivity of Biostat® 2% WP is greatest at soil temperatures between 70° and 90° F. Apply to nematode-infested (non-fumigated) soil no more than 14 days before planting or transplanting. If the soil has been fumigated recently, apply Biostat® 2% WP to fumigated soil at planting.
At planting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 2% WP in a nurse tank with continued agitation and meter the Biostat® 2% WP into the irrigation water during the entire irrigation period. • *Banded spray*: Apply in a minimum of 20 gallons of water per acre. Use 4" wide band applied in–furrow at planting (over or under the seed line). • *Drench*: Apply in a minimum of 20 gallons of water per acre. Drench in-furrow at planting (over or under the seed line). See "Instructions for Banded Application" to determine application rate per 1,000 row ft.
After planting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 2% WP in a nurse tank with continued agitation and meter the Biostat® 2% WP into the irrigation water during the entire irrigation period. • *Overhead sprinkler*: Apply in sufficient water to reach the root zone. A soil wetting agent can be used to enhance penetration of spores into the root zone. • *Direct injection*: Inject product directly into the root zone using shank or other soil injection equipment in 30 – 40 gallons water per acre. Repeat applications at 4-to-10-day intervals as needed to control plant-parasitic nematode populations during the crop period.

Crop Group 1: Root and Tuber Vegetables—Sweet Potato Only	
Application Type/Timing	Application Rates/Instructions
Before planting (seed beds)	Mix 0.75 to 1.25 pounds of Biostat® 2% WP with 5 gallons of water and apply as a drench or coarse spray to 100 square feet of soil. Thoroughly mix the soil to incorporate the application to planting depth.
Before transplanting (field soil)	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre in a 14-inch banded or broadcast spray of 20 – 40 gallons water per acre while forming the rows / planting hills and incorporate thoroughly into the top 4 – 10 inches of moist soil. See "Instructions for Banded Application" below. Apply when soil temperature at 4-inch depth is 60°F or higher. Bioactivity of Biostat® 2% WP is greatest at soil temperatures between 70° and 90° F. Apply to nematode-infested (non-fumigated) soil no more than 14 days before planting. If the soil has been fumigated recently, apply Biostat® 2% WP to fumigated soil at planting.
At transplanting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 2% WP in a nurse tank with continued agitation and meter the Biostat® 2% WP into the irrigation water during the entire irrigation period. • *Drench*: Disperse product entirely in a supply tank and add it to transplant water. Apply with at least 30 gallons transplant water per acre. A soil wetting agent can be used to enhance penetration of spores into the root zone.
After transplanting	Apply 1.25 to 10 pounds of Biostat® 2% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 2% WP in a nurse tank with continued agitation and meter the Biostat® 2% WP into the irrigation water during the entire irrigation period. • *Overhead sprinkler or drip (trickle) irrigation*: Apply in sufficient water to reach the root zone. A soil wetting agent can be used to enhance penetration of spores into the root zone. • *Direct injection*: Inject product directly into the root zone using shank or other soil injection equipment in 30 – 40 gallons water per acre. Repeat applications at 4-to-10-day intervals as needed to control plant-parasitic nematode populations during the crop period

Miscellaneous Crop: Turf	
Application Type/Timing	Application Rates/Instructions
Established Turf	Apply 0.75 pound of Biostat® 2% WP in minimum of 5 gallons of water per 1,000 square feet of turf using conventional ground application equipment; follow immediately (while leaves are still wet from application) by overhead irrigation, drenching the product into the root zone with at least 0.5 inches of water. If irrigation is not available, apply the product suspension prior to or during rainfall. Alternatively, apply the product through overhead sprinkler irrigation at 1.25 to 10 pounds per acre. A soil wetting agent can be used to enhance penetration of spores into the root zone. Apply every 2 months.

INSTRUCTIONS FOR BANDED APPLICATIONS

Biostat® 2% WP application may be concentrated into planting rows for both pre-planting and at-planting applications in the field. Use the table below to convert the desired application rate per acre into a banded rate per 1,000 row feet.

Find the desired application rate per acre in the left column. Read across that line to the correct row spacing indicated at the top to find the amount in dry ounces per 1,000 row feet that will provide the desired application rate per acre.

Space between rows (inches)	**Rate (lb/A)**							
	0.25	**0.5**	**0.75**	**1.0**	**1.25**	**1.5**	**1.75**	**2.0**
12	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.7
14	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.9
16	0.1	0.2	0.4	0.5	0.6	0.7	0.9	1.0
18	0.1	0.3	0.4	0.6	0.7	0.8	1.0	1.1
20	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2
22	0.2	0.3	0.5	0.7	0.8	1.0	1.2	1.3
24	0.2	0.4	0.6	0.7	0.9	1.1	1.3	1.5
26	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6
28	0.2	0.4	0.6	0.9	1.1	1.3	1.5	1.7
30	0.2	0.5	0.7	0.9	1.1	1.4	1.6	1.8
32	0.2	0.5	0.7	1.0	1.2	1.5	1.7	2.0
34	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1
36	0.3	0.6	0.8	1.1	1.4	1.7	1.9	2.2
38	0.3	0.6	0.9	1.2	1.5	1.7	2.0	2.3
40	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
42	0.3	0.6	1.0	1.3	1.6	1.9	2.2	2.6
44	0.3	0.7	1.0	1.3	1.7	2.0	2.4	2.7
46	0.4	0.7	1.1	1.4	1.8	2.1	2.5	2.8
48	0.4	0.7	1.1	1.5	1.8	2.2	2.6	2.9

CHEMIGATION INSTRUCTIONS

Precautions:

Apply this product only through pressurized irrigation systems such as drip (trickle) irrigation (including micro-irrigation through spaghetti tubes or individual tubes) or sprinkler irrigation (impact or micro-sprinklers, overhead boom, solid set, center pivot, lateral move, end tow, side (wheel)-roll, center pivot, traveler, big gun, or hand move); or through gravity flow systems such as flood, furrow, or border irrigation either before planting or to the planted crop/use site at the appropriate rates indicated above. If applied in this manner, irrigate with enough water to saturate the soil to the depth of the root zone. Addition of an approved soil wetting agent at the manufacturer's specified mix rate may enhance penetration of spores to the rooting zone. For information on which adjuvants and pesticides can be mixed with Biostat® 2% WP without harming the beneficial fungus it contains, contact your Technical Sales Representative or the Manufacturer. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, 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.

Pesticide Application Using 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.

1. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow 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.
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 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.
4. 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.

5. 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.
6. Do not apply when wind speed favors drift beyond the area intended for treatment.
7. Apply the entire treatment during the first ⅓ of the total irrigation.
8. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals.
9. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply product within 24 hours after mixing with water.

Pesticide Application Using Drip (Trickle) and Micro-Irrigation:

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 back flow.
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, 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.
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, which 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 fitted with a system interlock.
7. Apply the entire treatment during the first ⅓ of the total irrigation.
8. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals.
9. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply product within 24 hours after mixing with water.

Pesticide Application Using Sprinkler Irrigation:

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 back flow.
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, 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.

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, which 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 fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Apply the entire treatment during the first ⅓ of the total irrigation.
9. Mix product in the supply tank according to the application rates and timing provided in the crop tables at a concentration appropriate to cover the area to be treated. For tank mixes, please refer to “Tank Mixing” instructions.
10. Agitation is required for mixing and maintaining the suspension of the spores of the active agent in the injection solution. Apply product within 24 hours after mixing with water.

Flood or Furrow Chemigation:

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential of water source contamination from the backflow if water flow stops.
2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
    a. 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 back flow.
    b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
    c. 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.
    d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
    e. 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.
    f. 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.
3. Premix product with water in a nurse tank under agitation following the label mixing directions. For tank mixes, please refer to “Tank Mixing” instructions. Continue agitation and meter the product into the irrigation water during the entire irrigation period.
4. Apply product within 24 hours after mixing with water.

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 pouch into application equipment, then offer for recycling if available or dispose of empty pouch in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY

LAM INTERNATIONAL CORPORATION warrants that to the extent consistent with applicable law, this product conforms to the description on this label and is reasonably fit for the purposes set forth on this label, when used according to directions under normal use conditions. To the extent consistent with applicable law, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to the label instructions. To the extent consistent with applicable law, the buyer assumes the risk of any such uses.