OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

February 22, 2024

Bhavita Borad
Regulatory Affairs Manager
Certis USA, LLC
9145 Guilford Road
Suite 175
Columbia, MD 21046

Subject: Pesticide Registration Improvement Act (PRIA) Labeling Amendment – Updating the Label
Product Name: Biostat 10% WP
EPA Registration Number: 82074-16
EPA Receipt Date: 07/28/2023
Action Case Number: 00487401

Dear Bhavita Borad:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, 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.

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 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. 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 or claims substantially differing

from statements or claims made in connection with obtaining a FIFRA section 3 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 Andrew Queen by phone at 202-566-1539 or via email at queen.andrew@epa.gov.

Sincerely,

Alexandra Boukedes

Digitally signed by
Alexandra Boukedes
Date: 2024.02.22
17:20:18 -05'00'

Alexandra Boukedes, Product Manager 92
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511M)
Office of Pesticide Programs

Enclosure

MASTER LABEL
SUBLABEL A: Agricultural Use

Biostat® 10% WP

Bionematicide

{Alternate Brand Names: See Last Page for List of ABNs}

Active Ingredient: *Purpureocillium lilacinum* strain PL11*.....10.0%
Other Ingredients:.....90.0%
Total: 100.0%
* Contains a minimum of 7.5 x 10^9 viable spores/g of product.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
If on 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 treatment advice
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER Have the product container or label with you 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.: 82074-16
EPA Est. No.:
[Batch] {or} [Lot] No:
Net Weight:
[DATE OF MANUFACTURE: _____]

ACCEPTED
Feb 22, 2024
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 82074-16

{ } Symbolizes explanatory text to the reviewer
[ ] Indicates optional text

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove 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
- Waterproof or chemical-resistant gloves
- Protective eye wear

Mixer/loaders and applicators must wear:

- A NIOSH-approved particulate respirator with any 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:

- 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 the target area and runoff by avoiding applications when rainfall or heavy winds are expected 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 or chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

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® 10% WP is a biological nematicide containing spores of the fungus, *Purpureocillium lilacinum* strain PL11, that acts by parasitizing plant-parasitic nematodes. When used as part of an Integrated Pest Management (IPM) system, Biostat® 10% WP reduces crop damage caused by plant-parasitic nematodes as listed below.

For optimal results, Biostat® 10% WP must come into direct contact with nematodes in the soil profile or root zone [as quickly as possible] after application. Effective measures [that can help maximize contact of the spores with the target pests] include (1) light pre-irrigation to moisten soil, [(2) inclusion of a soil-penetrating adjuvant in the application,] and (3) post-application irrigation to "water in" the product.

[Biostat® 10% 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*)
- Cyst nematodes (*Heterodera* and *Globodera* species)
- Dagger nematodes *(Xiphinema* species*)*
- False root knot nematodes (*Naccobus* species)
- Lance nematodes (*Hoplolaimus* species)
- Lesion nematodes (*Pratylenchus* species)
- Needle nematodes (*Longidorus* species)
- Pin nematodes (*Paratylenchus* 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)

{California use restrictions ("**Not for use in California") may be added to the above listing of pests as required by the California Department of Pesticide Regulation.}**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® 10% WP to the tank. Do not allow spray mixture to stand overnight or for longer than 24 hours. 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® 10% 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® 10% 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® 10% WP.

PRECAUTIONS/RESTRICTIONS:

- **[DO NOT MIX** Biostat® 10% WP with chlorothalonil, mancozeb, triazole, or strobilurin fungicides.]
- **DO NOT MIX** with strong acids, bases or other caustic materials. .

AGRICULTURAL CROPS

For Indoor, Outdoor and Greenhouses Uses

Crop Group 1: Root and Tuber Vegetables

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

Crop Group 3-07: Bulb Vegetables

Bulb onion, Green onion, 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, Chinese, bulb; onion, fresh; 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

Head lettuce, Leaf lettuce, Mustard greens, Spinach, 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; watercress*; cultivars, varieties, and hybrids of these commodities

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

Crop Group 5-16: Brassica Head and Stem Vegetables

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

Crop Group 6-22 Legume Vegetables

Bean (*Phaseolus* spp.), edible podded (including, but not limited to French bean, garden bean, green bean, kidney bean, navy bean, scarlet runner bean, snap bean, and wax bean); **Bean (*Phaseolus* spp.), succulent shelled** (including, but not limited to lima bean, scarlet runner bean, and wax bean); **Bean (*Phaseolus* spp.), dry seed** (including, but not limited to black bean, cranberry bean, dry bean, field bean, French bean, garden bean, great northern bean, green bean, kidney bean, lima bean, navy bean, pink bean, pinto bean, red bean, scarlet runner bean, tepary bean, and yellow bean); **Pea (*Pisum* spp.), edible podded** (including, but not limited to dwarf pea, green pea, snap pea, snow pea, and sugar snap pea); **Pea (*Pisum* spp.), succulent shelled** (including, but not limited to English pea, garden pea, and green pea); **Pea (*Pisum* spp.), dry seed** (including, but not limited to dry pea, field pea, garden pea, yellow pea, wrinkled pea, marrowfat pea, and green pea); **Soybean, seed;** African yam bean, dry seed; American potato bean, dry seed; Bean (*Lupinus* spp.), succulent shelled (including, but not limited to Andean lupin, blue lupin, grain lupin, sweet lupin, white lupin, white sweet lupin, and yellow lupin); Bean (*Lupinus* spp.), dry seed (including, but not limited to Andean lupin, blue lupin, grain lupin, sweet lupin, white lupin, white sweet lupin, and yellow lupin); Bean (*Vigna* spp.), edible podded (including, but not limited to asparagus bean, catjang bean, Chinese longbean, cowpea, moth bean, mung bean, rice bean, urd bean, and yardlong bean); Bean (*Vigna* spp.), succulent shelled (including, but not limited to blackeyed pea, catjang bean, cowpea, crowder pea, moth bean, and southern pea); Bean (*Vigna* spp.), dry seed (including, but not limited to adzuki bean, asparagus bean, blackeyed pea, catjang bean, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, and yardlong bean); Broad bean (fava bean), succulent shelled; Broad bean (fava bean), dry seed; Chickpea(garbanzo), edible podded; Chickpea (garbanzo), succulent shelled; Chickpea (garbanzo), dry seed; Goa bean, edible podded (asparagus pea and winged

bean); Goa bean, succulent shelled (asparagus pea and winged bean); Goa bean, dry seed (asparagus pea and winged bean); Grass pea, edible podded; Grass pea, dry seed; Guar bean, edible podded; Guar bean, dry seed; Horse gram, dry seed; Jackbean, edible podded; Jackbean, succulent shelled; Jackbean, dry seed; Lablab bean (hyacinth bean), edible podded; Lablab bean (hyacinth bean), succulent shelled; Lablab bean (hyacinth bean), dry seed; Lentil, edible podded; Lentil, succulent shelled; Lentil, dry seed; Morama bean, dry seed; Pigeon pea, edible podded; Pigeon pea, succulent shelled; Pigeon pea, dry seed; Sword bean, edible podded; Sword bean, dry seed; Vegetable soybean, edible podded (edamame); Vegetable soybean, succulent shelled (edamame); Velvetbean, edible podded; Velvetbean, succulent shelled; Velvetbean, dry seed; Winged pea, edible podded; Winged pea, dry seed; cultivars, varieties, and/or hybrids of these commodities.

Crop Group 7-22 Forage and Hay For Legume Vegetables

Plant parts of any legume vegetable listed in Crop Group 6-22 that will be used as animal feed.

Crop Group 8: Fruiting Vegetables (except Cucurbits)

Tomato, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), eggplant; groundcherry (*Physalis* spp); pepino; tomatillo.

Crop Group 9: Cucurbit Vegetables and Pickling Cucumbers

Cucumber, Muskmelon (includes true cantaloupe, cantaloupe casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon)**, Summer squash** (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini);**,** chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); pumpkin;squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon and pickling cucumbers.

Crop Group 10-10: Citrus Fruits

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

Crop Group 11-10: Pome Fruits

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

Crop Group 12-12: Stone Fruits

Sweet cherry, Tart cherry, Peach, Plum, Prune plum, apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; Jujube, Chinese; nectarine; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plumcot; sloe; cultivars, varieties, and/or hybrids of these

Crop Group 13-07: Berry and Small Fruit* 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); **Highbush blueberry, Elderberry, Mulberry, Grapes (Wine grapes, Table grapes and Raisins), Fuzzy kiwifruit, Strawberry,** Amur river grape; aronia berry; bayberry; bearberry; bilberry; blueberry, lowbush; buffalo currant; buffaloberry; che; Chilean guava; chokecherry; cloudberry; cranberry*; cranberry, highbush*; currant, black; currant, red; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; muntries; native currant; partridgeberry; phalsa; pincherry; raspberry, black and red; riberry; salal; schisandra berry; sea buckthorn; serviceberry; 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

Almond, Pecan, African nut-tree; 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; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these.

Crop Group 15-22 Cereal Grains

Wheat, Braley, Field corn, Sweet corn, Rice*, Grain sorghum, Proso millet, Amaranth, grain; amaranth, purple; baby corn; buckwheat; buckwheat, tartary; canarygrass, annual; Cañihua; chia; cram cram; fonio, black; fonio, white; huauzontle grain; Inca wheat; Job's tears; millet, barnyard; millet, finger; millet, foxtail; millet, little; millet, pearl; oat; oat, Abyssinian; oat, common; oat, naked; oat, sand; popcorn; prince's feather; psyllium; psyllium, blond; quinoa; rice, African; rye; teff; teosinte; triticale; wheat, club; wheat, common; wheat, durum; wheat, einkorn; wheat, emmer; wheat, macha; wheat, oriental; wheat, Persian; wheat, Polish; wheat, poulard; wheat, shot; wheat, spelt; wheat, timopheevi; wheat, vavilovi; wheat, wild einkorn; wheat, wild emmer; wheatgrass, intermediate; wild rice*; wild rice, eastern*; cultivars, varieties, and hybrids of these commodities.

*Do not apply to rice, wild rice and eastern wild rice when bog or field is flooded.

Crop Group 16-22 Forage, Hay, Stover and Straw of Cereal Grains group

Includes the forage, hay, stover and straw of the commodities in Crop Group 15-22, including cultivars, varieties and/or hybrids of these commodities.

Crop Group 17 Grass Forage, Fodder and Hay

Forage, fodder, stover, and hay of any grass, Gramineae/Poaceae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage.

Crop Group 18: Nongrass Animal Feeds (Forage, Fodder, Straw and Hay)

Alfalfa; bean, velvet; clover (*Trifolium* spp., *Melilotus* spp.); kudzu; lespedeza; lupin; sainfoin; trefoil; vetch; vetch, crown; vetch, milk.

Crop Group 19: Herbs and Spices

Basil (fresh and dried), Black pepper, Chive, celery seed, Dill seed, Allspice; angelica; anise (seed); anise, star; annatto (seed); balm (lemon balm); borage; burnet; camomile; caper buds; caraway; caraway, black; cardamom; cassia bark; cassia buds; catnip; chervil (dried); 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); 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, white; poppy (seed); rosemary; rue; saffron; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; vanilla; wintergreen; woodruff; wormwood.

Crop Group 22: Stalk, Stem and Leaf Petiole Vegetables

Asparagus, Celery, Agave; aloe vera; bamboo, shoots; cardoon; celery, Chinese; celtuce; fennel, Florence, fresh leaves and stalk; fern, edible, fiddlehead; fuki; kale, sea; kohlrabi; palm hearts; prickly pear, pads; prickly pear, Texas, pads; rhubarb; udo; zuiki; cultivars, varieties, and hybrids of these commodities.

Crop Group 23: Tropical and Subtropical Fruit, Edible Peel

Date, Fig, Guava, Olive, Acai; acerola; achachairu; African plum; agritos; almondette; ambarella; apak palm; appleberry; araza; arbutus berry; babaco; bacaba palm; bacaba-de-leque; bayberry, red; bignay; bilimbi; borojo; breadnut; cabeluda; cajou, fruit; cambuca; carandas-plum; carob; cashew apple; Ceylon iron wood; Ceylon olive; cherry-of-the-Rio-Grande; Chinese olive, black; Chinese olive, white; chirauli-nut; ciruela verde; cocoplum; Davidson's plum; desert-date; doum palm coconut; false sandalwood; feijoa; fragant manjack; gooseberry, abyssinian; gooseberry, Ceylon; gooseberry, Indian; gooseberry, otaheite; governor's plum; grumichama; guabiroba; guava berry; guava, Brazilian; guava, cattley; guava, Costa Rican; guava, Para; guava, purple strawberry; guava, strawberry; guava, yellow strawberry; guayabillo; illawarra plum; imbe; imbu; Indian-plum; jaboticaba; Jamaica-cherry; jambolan; jelly palm; jujube, Indian; kaffir-plum; kakadu plum; kapundung; karanda; kwai muk; lemon aspen; mangaba; Marian plum; mombin, Malayan; mombin, purple; mombin, yellow; monkeyfruit; monos plum; mountain cherry; nance; natal plum; noni; papaya, mountain; pataua; peach palm, fruit; persimmon, black; persimmon, Japanese; pitomba; plum-of-Martinique; pomerac; rambai; rose apple; rukam; rumberry; sea grape; sentul; sete-capotes; silver aspen;

starfruit; Surinam cherry; tamarind; uvalha; water apple; water pear; water berry; wax jambu; cultivars, varieties, and hybrids of these commodities.

Crop Group 24: Tropical and Subtropical Fruit, Inedible Peel

Atemoya, Sugar apple, Avocado, Banana, Pomegranate, Dragon fruit, Lychee, Passionfruit, Pineapple, Prickly pear fruit, Abiu; aisen; akee apple; avocado, Guatemalan; avocado, Mexican; avocado, West Indian; bacury; bael fruit; banana, dwarf; binjai; biriba; breadfruit; Burmese grape; canistel; cat's-eyes; champedak; cherimoya; cupuacu; custard apple; durian; elephant-apple; etambe; granadilla; granadilla, giant; ilama; inga; jackfruit; jatoba; karuka; kei apple; langsat; lanjut; longan; lucuma; 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, banana; passionfruit, purple; passionfruit, yellow; pawpaw, common; pawpaw, small-flower; pelipisan; pequi; pequia; persimmon, American; pitahaya; pitaya; pitaya, amarillo; pitaya, roja; pitaya, yellow; plantain; poshte; 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; sun sapote; tamarind-of-the-Indies; velvet tamarind; wampi; white star apple; wild loquat; cultivars, varieties, and hybrids of these commodities

Crop Group 25: Herbs

Basil (dried and fresh leaves), Mint (dried and fresh leaves), agrimony, fresh leaves; Agrimony, dried leaves; Amla, fresh leaves; Amla, dried leaves; Angelica, fresh leaves; Angelica, dried leaves; Angelica, dahurian, fresh leaves; Angelica, dahurian, dried leaves; Applemint, fresh leaves; Applemint, dried leaves; Avarum, fresh leaves; Avarum, dried leaves; Balloon pea, fresh leaves; Balloon pea, dried leaves; Balm, fresh leaves; Balm, dried leaves; Barrenwort, fresh leaves; Barrenwort, dried leaves; Basil, American, fresh leaves; Basil, American, dried leaves; Basil, Greek, fresh leaves; Basil, Greek, dried leaves; Basil, holy, fresh leaves; Basil, holy, dried leaves; Basil, lemon, fresh leaves; Basil, lemon, dried leaves; Basil, Russian, fresh leaves; Basil, Russian, dried leaves; Bay, fresh leaves; Bay, dried leaves; Bearberry, fresh leaves; Bearberry, dried leaves; Bisongrass, fresh leaves; Bisongrass, dried leaves; Blue mallow, fresh leaves; Blue mallow, dried leaves; Boneset, fresh leaves; Boneset, dried leaves; Borage, fresh leaves; Borage, dried leaves; Borage, Indian, fresh leaves; Borage, Indian, dried leaves; Burnet, fresh leaves; Burnet, dried leaves; Burnet, garden, fresh leaves; Burnet, garden, dried leaves; Burnet, salad, fresh leaves; Burnet, salad, dried leaves; Butterbur, fresh leaves; Butterbur, dried leaves; Calamint, fresh leaves; Calamint, dried leaves; Calamint, large-flower, fresh leaves; Calamint, large-flower, dried leaves; Calamint, lesser, fresh leaves; Calamint, lesser, dried leaves; Calendula, fresh leaves; Calendula, dried leaves; Caltrop, fresh

leaves; Caltrop, dried leaves; Camomile (Chamomile), fresh leaves; Camomile (Chamomile) dried leaves; Camomile (Chamomile), German, fresh leaves; Camomile (Chamomile), German, dried leaves; Camomile (Chamomile), Roman, fresh leaves; Camomile (Chamomile), Roman, dried leaves; Caraway, fresh leaves; Caraway, dried leaves; Cat's claw, fresh leaves; Cat's claw, dried leaves; Catnip, fresh leaves; Catnip, dried leaves; Catnip, Japanese, fresh leaves; Catnip, Japanese, dried leaves; Celandine, greater, fresh leaves; Celandine, greater, dried leaves; Celandine, lesser, fresh leaves; Celandine, lesser, dried leaves; Celery, dried leaves; Centaury, fresh leaves; Centaury, dried leaves; Chaste tree, fresh leaves; Chaste tree, dried leaves; Chaste tree, Chinese, fresh leaves; Chaste tree, Chinese, dried leaves; Chervil, dried leaves; Chinese blackberry, fresh leaves; Chinese blackberry, dried leaves; Chinese foxglove, fresh leaves; Chinese foxglove, dried leaves; Chive, dried leaves; Chive, Chinese, dried leaves; Cicely, sweet, fresh leaves; Cicely, sweet, dried leaves; Cilantro, dried leaves; Clary, fresh leaves; Clary, dried leaves; Coriander, Bolivian, fresh leaves; Coriander, Bolivian, dried leaves; Coriander, Vietnamese, fresh leaves; Coriander, Vietnamese, dried leaves; Costmary, fresh leaves; Costmary dried leaves; Creat, fresh leaves; Creat, dried leaves; Culantro, fresh leaves; Culantro, dried leaves; Curry leaf, fresh leaves; Curry leaf, dried leaves; Curryplant, fresh leaves; Curryplant, dried leaves; Cut leaf, fresh leaves; Cut leaf, dried leaves; Damiana, fresh leaves; Damiana, dried leaves; Dillweed, dried leaves; Dokudami, fresh leaves; Dokudami, dried leaves; Echinacea, fresh leaves; Echinacea, dried leaves; Epazote, fresh leaves; Epazote, dried leaves; Eucommia, fresh leaves; Eucommia, dried leaves; Evening primrose, fresh leaves; Evening primrose, dried leaves; Eyebright, fresh leaves; Eyebright, dried leaves; Fennel, common, fresh leaves; Fennel, common, dried leaves; Fennel, Florence, dried leaves; Fennel, Spanish, fresh leaves; Fennel, Spanish, dried leaves; Fenugreek, fresh leaves; Fenugreek, dried leaves; Feverfew, fresh leaves; Feverfew, dried leaves; Field pennycress, fresh leaves; Field pennycress, dried leaves; Flowers, edible, fresh leaves, multiple species; Flowers, edible, dried leaves, multiple species; Fumitory, fresh leaves; Fumitory, dried leaves; Galbanum, fresh leaves; Galbanum, dried leaves; Galega, fresh leaves; Galega, dried leaves; Gambir, fresh leaves; Gambir, dried leaves; Geranium, fresh leaves; Geranium, dried leaves; Geranium, lemon, fresh leaves; Geranium, lemon, dried leaves; Geranium, rose, fresh leaves; Geranium, rose, dried leaves; Germander, golden, fresh leaves; Germander, golden, dried leaves; Goldenrod, European, fresh leaves; Goldenrod, European, dried leaves; Goldenseal, fresh leaves; Goldenseal, dried leaves; Gotu kola, fresh leaves; Gotu kola, dried leaves; Greater periwinkle, fresh leaves; Greater periwinkle, dried leaves; Guayusa, fresh leaves; Guyana, dried leaves; Gumweed, fresh leaves; Gumweed, dried leaves; Gymnema, fresh leaves; Gymnema, dried leaves; Gypsywort, fresh leaves; Gypsywort, dried leaves; Hawthorn, fresh leaves; Hawthorn, dried leaves; Heal-all, fresh leaves; Heal-all, dried leaves; Hemp nettle, fresh leaves; Hemp nettle, dried leaves; Honewort, fresh leaves; Honewort, dried leaves; Honeybush, fresh leaves; Honeybush, dried leaves; Horehound, fresh leaves; Horehound, dried leaves; Horsemint, fresh leaves; Horsemint, dried leaves; Horsetail, fresh leaves; Horsetail, dried leaves; Hyssop, fresh leaves; Hyssop, dried leaves; Hyssop, anise, fresh leaves; Hyssop, anise, dried leaves; Indian tobacco, fresh leaves; Indian tobacco, dried leaves; Ironwort, fresh leaves; Ironwort, dried leaves; Ivy, fresh leaves; Ivy, dried leaves; Jamaica dogwood, fresh leaves; Jamaica dogwood, dried leaves; Jasmine, fresh leaves; Jasmine dried leaves; Labrador tea, fresh leaves; Labrador tea, dried leaves; Lavender, fresh leaves; Lavender, dried leaves; Lemon

verbena, fresh leaves; Lemon verbena, dried leaves; Lemongrass, fresh leaves; Lemongrass, dried leaves; Lovage, fresh leaves; Lovage, dried leaves; Love-in-a-mist, fresh leaves; Love-in-a-mist, dried leaves; Mamaki, fresh leaves; Mamaki, dried leaves; Marigold, fresh leaves; Marigold, dried leaves; Marigold, African, fresh leaves; Marigold, African, dried leaves; Marigold, Aztec, fresh leaves; Marigold, Aztec, dried leaves; Marigold, French, fresh leaves; Marigold, French, dried leaves; Marigold, Irish lace, fresh leaves; Marigold, Irish lace, dried leaves; Marigold, licorice, fresh leaves; Marigold, licorice, dried leaves; Marigold, Mexican mint, fresh leaves; Marigold Mexican mint, dried leaves; Marigold, signet, fresh leaves; Marigold, signet, dried leaves; Marjoram, fresh leaves; Marjoram, dried leaves; Marjoram, pot, fresh leaves; Marjoram, pot, dried leaves; Marjoram, sweet, fresh leaves; Marjoram, sweet, dried leaves; Marshmallow, fresh leaves; Marshmallow, dried leaves; Meadowsweet, fresh leaves; Meadowsweet dried leaves; Mint, corn, fresh leaves; Mint, corn, dried leaves; Mint, Korean, fresh leaves; Mint Korean, dried leaves; Monarda, fresh leaves; Monarda, dried leaves; Moringa, fresh leaves; Moringa, dried leaves; Motherwort, fresh leaves; Motherwort, dried leaves; Mountainmint, fresh leaves; Mountainmint, dried leaves; Mountainmint, clustered, fresh leaves; Mountainmint, clustered, dried leaves; Mountainmint, hoary, fresh leaves; Mountainmint, hoary, dried leaves; Mountainmint, Virginia, fresh leaves; Mountainmint, Virginia, dried leaves; Mountainmint, whorled, fresh leaves; Mountainmint, whorled, dried leaves; Mugwort, fresh leaves; Mugwort, dried leaves; Mulberry, white, fresh leaves; Mulberry, white, dried leaves; Mullein, fresh leaves; Mullein, dried leaves; Mustard, hedge, fresh leaves; Mustard, hedge, dried leaves; Nasturtium, fresh leaves; Nasturtium, dried leaves; Nasturtium, bush, fresh leaves; Nasturtium, bush, dried leaves; Nasturtium, garden, fresh leaves; Nasturtium, garden, dried leaves; Nettle, stinging, fresh leaves; Nettle, stinging, dried leaves; Oregano, fresh leaves; Oregano, dried leaves; Oregano, Mexican, fresh leaves; Oregano, Mexican, dried leaves; Oregano, Puerto Rico, fresh leaves; Oregano, Puerto Rico, dried leaves; Oswego tea, fresh leaves; Oswego teat, dried leaves; Pandan leaf, fresh leaves; Pandan leaf, dried leaves; Pansy, fresh leaves; Pansy, dried leaves; Paracress, fresh leaves; Paracress dried leaves; Parsley, dried leaves; Partridge berry, fresh leaves; Partridge berry, dried leaves; Patchouli, fresh leaves; Patchouli, dried leaves; Pennyroyal, fresh leaves; Pennyroyal, dried leaves; Pepper leaf, black, fresh leaves; Pepper leaf, black, dried leaves; Peppermint, fresh leaves; Peppermint, dried leaves; Perilla, fresh leaves; Perilla, dried leaves; Pill bearing spurge, fresh leaves; Pill bearing spurge, dried leaves; Pipsissewa, fresh leaves; Pipsissewa, dried leaves; Plantain, common, fresh leaves; Plantain, common, dried leaves; Rooibos, fresh leaves; Rooibos, dried leaves; Rose, fresh leaves; Rose, dried leaves; Rosemary, fresh leaves; Rosemary, dried leaves; Sage, fresh leaves; Sage, dried leaves; Sage, Greek, fresh leaves; Sage, Greek, dried leaves; Sage, Spanish, fresh leaves; Sage, Spanish, dried leaves; Sage, white, fresh leaves; Sage, white, dried leaves; Savory, summer, fresh leaves; Savory, summer, dried leaves; Savory, winter, fresh leaves; Savory, winter, dried leaves; Senna, fresh leaves; Senna, dried leaves; Siberian fir, fresh leaves; Siberian fir, dried leaves; Skullcap, fresh leaves; Skullcap, dried leaves; Small flower willow head, fresh leaves; Small flower willow head, dried leaves; Sorrel, fresh leaves; Sorrel, dried leaves; Sorrel, French, fresh leaves; Sorrel, French, dried leaves; Sorrel, garden, fresh leaves; Sorrel, garden, dried leaves; Southernwood, fresh leaves; Southernwood, dried leaves; Spearmint, fresh leaves; Spearmint, dried leaves; Spearmint, Scotch, fresh leaves; Spearmint, Scotch, dried leaves; Spilanthes, fresh leaves; Spilanthes, dried leaves; Spotted

beebalm, fresh leaves; Spotted beebalm, dried leaves; St. John's Wort, fresh leaves; St. John's Wort, dried leaves; Stevia, fresh leaves; Stevia, dried leaves; Stoneroot, fresh leaves; Stoneroot, dried leaves; Swamp leaf, fresh leaves; Swamp leaf, dried leaves; Tansy, fresh leaves; Tansy, dried leaves; Tarragon, fresh leaves; Tarragon, dried leaves; Thuja, fresh leaves; Thuja, dried leaves; Thyme, fresh leaves; Thyme, dried leaves; Thyme, creeping, fresh leaves; Thyme, creeping, dried leaves; Thyme, lemon, fresh leaves; Thyme, lemon, dried leaves; Thyme, mastic, fresh leaves; Thyme, mastic, dried leaves; Toon, Chinese, fresh leaves; Toon, Chinese, dried leaves; Toothed clubmoss, fresh leaves; Toothed clubmoss, dried leaves; Trailing arbutus, fresh leaves; Trailing arbutus, dried leaves; Vasaka, fresh leaves; Vasaka, dried leaves; Verbena, blue, fresh leaves; Verbena, blue, dried leaves; Veronica, fresh leaves; Veronica, dried leaves; Violet, fresh leaves; Violet, dried leaves; Watermint, fresh leaves; Watermint, dried leaves; Waterpepper, fresh leaves; Waterpepper, dried leaves; Wild bergamot, fresh leaves; Wild bergamot, dried leaves; Wintergreen, fresh leaves; Wintergreen, dried leaves; Wood betony, fresh leaves; Wood betony, dried leaves; Woodruff, fresh leaves; Woodruff, dried leaves; Wormwood, fresh leaves; Wormwood, dried leaves; Wormwood, Roman, fresh leaves; Wormwood, Roman, dried leaves; Yarrow, fresh leaves; Yarrow, dried leaves; Yellow gentian, fresh leaves; Yellow gentian, dried leaves; Yerba santa, fresh leaves; Yerba santa, dried leaves; Yomogi, fresh leaves; Yomogi, dried leaves; Cultivars, varieties, and hybrids of these commodities.

Miscellaneous Crops

Hops, Sugarcane, Artichoke, globe; Coffee; Cotton; Hemp; Peanut; Tobacco.

{California use restrictions ("**Not for use in California") may be added to the above listing of crops as required by the California Department of Pesticide Regulation.}

Application Rates and Timing

Crop Group 1: Root and Tuber Vegetables - Potato Only	
Application Type/Timing	Application Rates/Instructions
Before planting	Mix 0.25 to 2 pounds of Biostat® 10% WP in 20 - 40 gallons of water and apply in a 14-inch banded or broadcast spray 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® 10% 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® 10% WP to fumigated soil at planting.
At planting	Apply 0.25 to 2 pounds of Biostat® 10% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 10% WP in a nurse tank with continued agitation and meter the Biostat® 10% 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 0.25 to 2 pounds of Biostat® 10% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 10% WP in a nurse tank with continued agitation and meter the Biostat® 10% 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.] Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed.

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

Crop Group 1: Root and Tuber Vegetables—Sugar Beet Only	
Application Type/Timing	Application Rates/Instructions
Before planting	Apply 0.25 to 2 pounds of Biostat® 10% 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 of 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® 10% 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® 10% WP to fumigated soil at planting.
At planting	Apply 0.25 to 2 pounds of Biostat® 10% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 10% WP in a nurse tank with continued agitation and meter the Biostat® 10% 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 0.25 to 2 pounds of Biostat® 10% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 10% WP in a nurse tank with continued agitation and meter the Biostat® 10% 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 of water per acre. Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed.

{California use restrictions (“**Not for use in California”) may be added to the above table as required by the California Department of Pesticide Regulation.}

Crop Group 1: Root and Tuber Vegetables—Sweet Potato Only	
Application Type/Timing	Application Rates/Instructions
Before planting (seed beds)	Mix 0.25 to 2 ounces of Biostat® 10% WP in 5 gallons of water per acre and apply as a drench or coarse spray to the soil.
Before transplanting (field soil)	Mix 0.25 to 2 pounds of Biostat® 10% WP in 20-40 gallons of water per acre and apply in a 14-inch banded or broadcast spray 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® 10% 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® 10% WP to fumigated soil at planting.
At transplanting	Apply 0.25 to 2 pounds of Biostat® 10% WP per acre by one of the following methods: • In transplant water at planting • *Flood or furrow application*: Premix Biostat® 10% WP in a nurse tank with continued agitation and meter the Biostat® 10% 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 in 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 0.25 to 2 pounds of Biostat® 10% WP per acre by one of the following methods: • *Flood or furrow application*: Premix Biostat® 10% WP in a nurse tank with continued agitation and meter the Biostat® 10% 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 of water per acre. Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed.

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

Crop Groups:
1: Root and Tuber Vegetables (except potato, sugar beet, sweet potato);
3-07: Bulb Vegetables
4-16: Leafy Vegetables
5-16: Brassica Head and Stem Vegetables
6-22 Legume Vegetables
7-22 Forage and Hay of Legume Vegetables
8: Fruiting Vegetables (except Cucurbits)
9: Cucurbits
13-07: Berry and Small Fruit—Strawberry Only
15-22 Cereal Grain Group
16-22 Forage, Hay, Stover and Straw of cereal Grain
17 Grass Forage, Fodder and Hay
18 Nongrass Animal Feeds (Forager, Fodder, Straw and Hay)
19: Herbs and Spices
22: Stalk, Stem, and Leaf Petiole Vegetables
23. Tropical and Subtropical Fruit Crops (Edible Peel)
24 Tropical and Subtropical Fruit Crops (Inedible Peel)—Pineapple Only
25: Herbs

Miscellaneous Crops:
Artichoke, Globe

Tobacco

Application Type/Timing	Application Rates/Instructions
Before planting/ Transplanting (Field Soil)	Apply 0.25 to 2 pounds of Biostat® 10% 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*: Mix in 40 – 100 gallons of water per acre followed by incorporation using light tillage. • *Surface spray with irrigation*: Mix 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 of 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® 10% 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® 10% WP application to transplants **just before** transplanting into the field, as described in the next section. Alternatively, apply Biostat® 10% WP to fumigated soil **at or after** planting or transplanting (see below).
Before transplanting (Flats/Pots/ Containers)	Mix 2 to 4 ounces of Biostat® 10% 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. Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed **at or after** transplanting (see below).
At/after planting/ transplanting (Field Soil)	• Apply 0.25 to 2 pounds of Biostat® 10% WP per acre by one of the following methods: *Drip (trickle) or overhead sprinkler application* • *Flood or furrow application*: Premix Biostat® 10% WP in a nurse tank with continued agitation and meter the Biostat® 10% 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® 10% 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. Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed. [A soil wetting agent can be used to enhance penetration of spores into the root zone.]

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

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

*For cranberry (including highbush), do not apply when bog or field is flooded.

Miscellaneous Crops: Coffee Hemp	
Application Type/Timing	Application Rates/Instructions
Multiple Trees, Bushes, or Vines (full or partial orchard/ plantation/ vineyard)	• Apply 0.25 to 2 pounds of Biostat® 10% 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 of water 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 rainfall to assist in movement to the roots. [A soil wetting agent can be used to enhance penetration of spores into the root zone.] Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days, or during root flush, as needed..
Individual Trees, Bushes or Vines	Mix 4 ounces of Biostat® 10% WP in 5 gallons of water per acre and apply as a drench or spray to the soil from stem to drip line (outer reaches of the branches or vines). [5 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 rainfall to assist in movement to the roots. [A soil wetting agent can be used to enhance penetration of spores into the root zone.] Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days, or during root flush, as needed.

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

Crop Group 24: Tropical and Subtropical Fruit, Inedible Peel [except pineapple]	
Application Type/Timing	Application Rates/Instructions
At planting	For 250 plants: Mix 1 pound of Biostat® 10% WP in 20-100 gallons of water 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 0.25 to 2 pounds of Biostat® 10% WP in 20-100 gallons of water per acre and 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.] Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed.

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

Miscellaneous Crop: Cotton	
Application Type/Timing	Application Rates/Instructions
Pre-plant incorporation (Prior to bed-forming)	Mix 0.25 to 2 pounds of Biostat® 10% WP in a minimum of 20 gallons of water per acre and apply to moist soil (if soil is not moist, apply prior to rainfall or pre-plant irrigation) prior to bed forming. Follow up with a post-emergence application at the 6th to 7th true leaf stage.
In-furrow application	Mix 0.25 to 2 pounds of Biostat® 10% WP in a minimum of 20 gallons of water per acre and apply 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-emergence application at the 6th to 7th true leaf stage.
At minimum tillage—Post-plant irrigation or rainfall drench	Mix 0.25 to 2 pounds of Biostat® 10% WP in a minimum of 20 gallons of water per acre and apply 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-emergence application at the 6th to 7th true leaf stage.
Post-emergence application (6th to 7th true leaf stage)	Mix 0.25 to 2 pounds of Biostat® 10% 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.

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

Miscellaneous Crop: Peanut	
Application Type/Timing	Application Rates/Instructions
Pre-plant incorporation (Prior to bed-forming)	Mix 0.25 to 2 pounds of Biostat® 10% WP in a minimum of 20 gallons of water per acre to moist soil (if soil is not moist, apply prior to rainfall or pre-plant irrigation) prior to bed forming. Follow up with a pre-pegging application.
Pre-planting bed treatment	Mix 0.25 to 2 pounds of Biostat® 10% 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	Mix 0.25 to 2 pounds of Biostat® 10% 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	Mix 0.25 to 2 pounds of Biostat® 10% 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	Mix 0.25 to 2 pounds of Biostat® 10% 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.]

{California use restrictions (“**Not for use in California”) may be added to the above table as required by the California Department of Pesticide Regulation.}

INSTRUCTIONS FOR BANDED OR IN-FURROW APPLICATIONS

Biostat® 10% 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® 10% 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

Certis USA LLC 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.

{List of Alternate Brand Names:}

1. Nemaclean 10% WP
2. Nemagard
3. Nemagard 10% WP
4. Venatrix
5. Venatrix 10% WP

MASTER LABEL
SUBLABEL B: Turf and Ornamental
Biostat® 10% WP

Bionematicide

{Alternate Brand Names: See Last Page for List of ABNs}

For Use on commercial Turf and Commercial Nurseries and Greenhouses Ornamentals
(container and field grown including herbaceous and woody ornamentals)

Active Ingredient: *Purpureocillium lilacinum* strain PL11*.....10.0%
Other Ingredients:.....90.0%
Total: 100.0%
* Contains a minimum of 7.5 x 10^9 viable spores/g of product.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
If on 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 treatment advice
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE 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.: 82704-16
EPA Est. No.:
[Batch] {or} [Lot] No.:
Net Weight:

[DATE OF MANUFACTURE: _____]

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove 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
- Waterproof or chemical resistant gloves
- Protective eye wear

Mixer/loaders and applicators must wear:

- A NIOSH-approved particulate respirator with any 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:

- 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 the target area and runoff by avoiding applications when rainfall or heavy winds are expected 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 or chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

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® 10% WP is a biological nematicide containing spores of the fungus, *Purpureocillium lilacinum* strain PL11, that acts by parasitizing plant-parasitic nematodes. When used as part of an Integrated Pest Management (IPM) system, Biostat® 10% WP reduces crop damage caused by plant-parasitic nematodes as listed below.

For optimal results, Biostat® 10% WP must come into direct contact with nematodes in the soil profile or root zone [as quickly as possible] after application. Effective measures [that can help maximize contact of the spores with the target pests] include (1) light pre-irrigation to moisten soil, [(2) inclusion of a soil-penetrating adjuvant in the application,] and (3) post-application irrigation to "water in" the product.

[Biostat® 10% 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*)
- Cyst nematodes (*Heterodera* and *Globodera* species)
- Dagger nematodes *(Xiphinema* species*)*
- False root knot nematodes (*Naccobus* species)
- Lance nematodes (*Hoplolaimus* species)
- Lesion nematodes (*Pratylenchus* species)
- Needle nematodes (*Longidorus* species)
- Pin nematodes (*Paratylenchus* 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)

{California use restrictions ("**Not for use in California") may be added to the above listing of pests as required by the California Department of Pesticide Regulation.}

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® 10% WP to the tank. Do not allow spray mixture to stand overnight or for longer than 24 hours. 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® 10% 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® 10% 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® 10% WP.

PRECAUTIONS/RESTRICTIONS:

- **[DO NOT MIX** Biostat® 10% WP with chlorothalonil, mancozeb, triazole, or strobilurin fungicides.]
- **DO NOT MIX** with strong acids, bases or other caustic materials.

Application Rates and Timing

Commercial Turf	
Application Type/Timing	Application Rates/Instructions
Established Turf	Mix 0.25 to 2 ounces of Biostat® 10% WP per acre in 5 gallons of water and apply 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. Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed.

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

Commercial Nurseries and Greenhouses Ornamentals (container and field grown including herbaceous and woody ornamentals)	
Application Type/Timing	Application Rates/Instructions
Before/At/After Planting/ Transplanting (Flats/Pots/Containers)	Mix 0.25 to 2 pounds of Biostat® 10% WP with 100 gallons of water and apply by one of the following methods: • *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 40-100 gallons of water 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 of water per acre. [Apply when soil temperature at 4-inch depth is 60°F or higher. Bioactivity of Biostat® 10% 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. Thoroughly wet the soil into the root zone with sufficient water during or immediately after applications. Application frequency can vary based on a variety of factors, including nematode pressure, weather conditions, and economics. Applications can be made as often as every 4 days or extended to every 60 days as needed. [A soil wetting agent can be used to enhance penetration of spores into the root zone.] Follow up with application to the soil (flats, pots, container, filed) **at or after** planting or transplanting.

	If the soil has been fumigated recently (within 2 weeks), make the initial Biostat® 10% WP application to transplants **just before** transplanting into the field, as described in the next section. Alternatively, apply Biostat® 10% WP to fumigated soil **at or after** planting or transplanting.

{California use restrictions ("**Not for use in California") may be added to the above table as required by the California Department of Pesticide Regulation.}

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® 10% 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.

10. 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.
11. The pesticide injection pipeline must contain a functional, automatic, quick-closing check

valve to prevent the flow of fluid back toward the injection pump.

12. 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.
13. 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.
14. 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.
15. Do not apply when wind speed favors drift beyond the area intended for treatment.
16. Apply the entire treatment during the first ⅓ of the total irrigation.
17. 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.
18. 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:

10. 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.
11. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
12. 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.
13. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
14. 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.
15. 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.
16. Apply the entire treatment during the first ⅓ of the total irrigation.
17. 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.
18. 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:

11. 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.
12. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
13. 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.
14. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
15. 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.
16. 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.
17. Do not apply when wind speed favors drift beyond the area intended for treatment.
18. Apply the entire treatment during the first ⅓ of the total irrigation.
19. 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.
20. 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:

2. 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

Certis USA LLC 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.

{List of Alternate Brand Names:}

1. Nemaclean 10% WP
2. Nemagard
3. Nemagard 10% WP
4. Venatrix
5. Venatrix 10% WP