



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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 3, 2023

Shreya Gautam
Regulatory Affairs Specialist
Marrone Bio Innovations, Inc.
1540 Drew Ave
Davis, CA 95618

Subject: Non-PRIA (Pesticide Registration Improvement Act) Label Amendment – Minor
Revisions to Seed Treatment Directions for Use and Correct Typos
Product Name: MBI-110 EP
EPA Registration Number: 85049-28
EPA Receipt Date: 4/4/2023
Action Case Number: 445262

Dear Ms. Gautam,

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

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

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 (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements 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.

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EPA Reg. No. 85049-28
Action Case No. 445262

If you have any questions, please contact Daniel Schoeff via email at schoeff.daniel@epa.gov.

Sincerely,

DANIEL
SCHOEFF

Digitally signed by
DANIEL SCHOEFF
Date: 2023.05.03
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Daniel Schoeff, Risk Manager
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511M)
Office of Pesticide Programs

Optional/Alternate text appears within parentheses, editorial text appears within brackets and is not intended for final printed label

MBI-110 EP

Alternate Brand Names: Stargus, Stargus CG, Amplitude, MBI-110 ST, Amplitude ST, Stargus ST, Stargus Biofungicide, Amplitude Biofungicide, Stargus CG Biofungicide, MBI-110 EP Biofungicide

MASTER LABEL, containing:

Sublabel A: Agricultural Crop Use, Turf & Ornamental Use

Sublabel B: Home & Garden Use

EPA Reg. No.: File Symbol 84059-28

Manufactured by: Marrone Bio Innovations, Inc.
1540 Drew Ave
Davis, CA 95618 USA
1-877-664-4476; info@marronebio.com

ACCEPTED

May 03, 2023

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 84059-28

Optional/Alternate text appears within parentheses, editorial text appears within brackets and is not intended for final printed label

Sublabel A: Agricultural Crop Use, Turf & Ornamental Use

MBI-110 EP

Broad-spectrum biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases

(Biological) (Microbial) (Fungicide) (Biofungicide)
Aqueous Suspension



(Can Be Used in Organic Production) (For Organic Production)(



)()

Active ingredient: <i>Bacillus amyloliquefaciens</i> strain F727* cells and spent fermentation media	96.4%
Other ingredients:	3.6%
Total	100.0%

*Contains a minimum of 1 X 10⁹ cfu/ml of product

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
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.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For non-emergency information on product usage, for example, call (1-877-644-4476), Monday through Friday, 9a.m. to 5 p.m Pacific Time. For medical emergencies call your poison control center at 1-800-222-1222.	

EPA Reg. No.: 84059-28

EPA Est. No.: XXXXX-XX-XXX

Net Contents: XX

(Batch)(Lot) No: XXXX (Printed on container)

Manufactured [for] [by]: Marrone Bio Innovations, Inc.
1540 Drew Ave.
Davis, CA 95618 USA
1-877-664-4476; info@marronebio.com

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Applicators and other handlers must wear:

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

Mixers/loaders and applicators must wear a NIOSH-approved particulate filter with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a 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 manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, 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), (e), and (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, including 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. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. 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.

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 the restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

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 wear:

- Coveralls
- Chemical resistant gloves (made of any waterproof material)
- 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 the 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 treatment area until seeds have dried or been packaged.

PRODUCT INFORMATION

MBI-110 EP is a biological fungicide containing *Bacillus amyloliquefaciens* strain F727. Apply prior to disease infestation to protect the growing leaf tissue, flowers and above ground fruits and vegetables. MBI-110 EP can be used in multiple application methods to control or suppress certain foliar and soil-borne diseases. See specific information below for diseases controlled, use rates and application intervals.

MBI-110 EP can be used in either the field or greenhouse for the prevention of any labeled disease.

MODE OF ACTION

The active ingredient in MBI-110 EP is a beneficial rhizobacterium that colonizes plant root hairs, leaves and other surfaces to prevent establishment of fungal and bacterial plant diseases. MBI-110 EP has a protective effect because it inhibits spore germination and a curative effect because it inhibits mycelial growth and sporulation of the fungus on the leaf surface. However, optimum disease control is achieved when MBI-110 EP is applied preventatively in a regularly scheduled protective spray program and used in rotation or tank-mix program with other registered fungicides.

MIXING AND APPLICATION INSTRUCTIONS – SHAKE WELL PRIOR TO USE –

MBI-110 EP is an aqueous suspension. Use 50-mesh nozzle screens or larger.

See **FOLIAR (AERIAL OR GROUND) APPLICATION** section for foliar application use directions.

See **BACKPACK/HANDHELD SPRAYER** section for use directions.

See **CHEMIGATION** section for chemigation use directions.

See **PRE-PLANT DIP** section for pre-plant dip use directions.

See **SEED TREATMENT** section for seed treatment use directions.

See **SOIL TREATMENT** section for soil application use directions.

See **TREE INJECTION** section for tree injection application use directions.

See **POST-HARVEST SPRAY/HUMIDIFICATION** section for post-harvest application use directions.

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Use higher water volumes with larger sized crops and extensive foliage to secure thorough coverage.

MBI-110 EP alone: Add ½ of the required amount of water to the mix tank. With the agitator running, add the MBI-110 EP to the mix tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the MBI-110 EP has completely dispersed into the mix water. Maintain agitation until all the mixture has been applied.

MBI-110 EP + tank mixtures: Add ½ - ¾ of the required amount of water to the mix tank. Start the agitation before adding any tank-mix partners. In general, tank-mix partners should be added in this order: wettable powders, dry flowable formulations, liquid flowable formulations, and emulsifiable formulations such as MBI-110 EP. Always allow each tank-mix partner to become completely dispersed before adding the next component. Maintain continuous agitation until all components have been dispersed and throughout the application process. After all components are completely dispersed add the remainder of the water. MBI-110 EP cannot be mixed with another product with a prohibition against mixing. Use of the tank-mix must be in accordance with the more restrictive label limitations and precautions. **Do not pre-mix MBI-110 EP with any other tank-mix component prior to adding to the spray tank.**

Compatibility: Do not combine MBI-110 EP in the spray tank with pesticides, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, and non-injurious under your use conditions.

MBI-110 EP is compatible with many commonly used pesticides, fertilizers, adjuvants, and surfactants, but has not been evaluated with all potential combinations. To ensure compatibility of the tank-mix combinations, evaluate prior to use as follows: Using a suitable container, add the proportional amounts of product to water. Add wettable powders first, then water dispersible granules, then liquid flowables, and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the mix on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of the application.

FOLIAR (GROUND AND AERIAL) APPLICATION INSTRUCTIONS

0.5 – 4 quarts MBI-110 per acre

(For (foliar) (ground) applications,) (to optimize disease control and to maximize yields,) apply this product (preventatively) in (a minimum of) 10-100 gallons of water per acre (by ground or aerial application) (prior to disease development) (using sufficient volume for thorough coverage) (sufficient to provide thorough coverage). (Increase water volume as plant size increases.)

(For (foliar) (aerial) applications, apply this product (preventatively) in (a minimum of) 3-10 gallons of water per acre.)

(Apply this product) (preventatively or) (when the first disease symptoms) (are visible) (appear). (Begin application soon after emergence or transplant) ((or) (and) when (environmental) conditions are conducive to (rapid) disease development) (prior to disease development using sufficient volume for thorough coverage) (and reapply every 7 to 10 days.) (Repeat applications at (7- to10- day) (7- to 21-day) intervals) (using higher rates with longer spray intervals) (depending upon crop growth and disease pressure). (Use shorter intervals when conditions are conducive to rapid disease development.) (Increase water volume as plant growth increases to maintain thorough coverage.) (Consult your local Extension specialist or crop consultant regarding the optimum timing of fungicide applications.) (Spray until just before point of runoff.) (For improved performance, use this product in a tank-mix or rotational program with other registered fungicides.)

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(Apply MBI-110 EP in ground and aerial application equipment to the crops listed at the rates specified in the SELECTED CROPS section. Increasing the amount of water to the higher end of the recommended applied per acre range may improve product performance. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage.)

Row Crop Application

Use calibrated power-operated ground equipment capable of providing uniform coverage of the target crop. Orient the boom and nozzles to obtain uniform crop coverage. Unless specified differently in the SELECTED CROPS section, a minimum of 10 gallons per acre by ground or 5 gallons by aerial application should be utilized, increasing volume with crop size and/or pest pressure. Use hollow cone, disc core/hollow cone or twin jet flat fan nozzles suitable for insecticide spraying. Under certain conditions, drop nozzles may be required to obtain complete coverage of plant surfaces. Follow manufacturer's recommendations for ideal nozzle spacing and spray pressure and minimize boom height to optimize uniformity of coverage and maximize deposition to reduce drift.

Orchard Spraying

- Dilute spray application: Dilute applications: this product can be applied by ground equipment to vine and tree crops in dilute applications of 100 - 400 gallons of water. Avoid excessive amounts of water that result in the runoff of spray material
- Concentrate spray application: This application method is based on the premise that all plant parts are uniformly covered with spray solution but not to the point of runoff as with a dilute spray. Instead, a lower spray volume is used to deliver the same application rate of product per acre as is used for the dilute spray.

Do not spray when wind speed favors drift beyond the area intended for use.

Avoiding spray drift is the responsibility of the applicator.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Unless specified differently in the SELECTED CROPS section, apply in a spray volume of 5 or more gallons per acre on row crops and 10 or more gallons per acre on tree or orchard crops. Disease control by aerial application may be less than control by ground application because of reduced coverage.

SPRAY DRIFT Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather- related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed. Note: This section is advisory in nature and does not supersede the mandatory label requirements.

INFORMATION ON DROPLET SIZE: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply droplets large enough to provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When high flow rates are needed, use higher flow rate nozzles instead of increasing pressure. Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage. Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal

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will reduce droplet size and increase drift potential. Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM WIDTH: For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 2-10 mph as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.

APPLICATION HEIGHT: Do not make application at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

WIND: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS: Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

BACKPACK/HAND-HELD SPRAYER USE DIRECTIONS

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The use rate for MBI-110 EP when applied in a backpack or hand-held sprayer is 0.5 – 1.0 fluid ounces (1 to 2 tablespoons) per gallon applied at 1 - 2.5 gallons of water per 1000 square feet (50 - 100 gallons of water per acre). Or apply MBI-110 EP at a dilution of 0.5 – 2.5 fluid ounces (1 – 5 tablespoons) per gallon of water. Apply sufficient volume to obtain thorough coverage but do not use carrier volumes and/or adjuvants that create spray runoff or drip-accumulation at the base of fruit or on the commodity. See specific application recommendations pertaining to each crop for additional details.

Use rate for MBI-110 EP

	Tablespoons MBI-110 EP per Gallon of Water	Fluid Ounces MBI-110 EP per Gallon of Water	Applied (diluted) Gallons per 1,000 sq. ft.
Rates	1– 2	0.5 – 1	1 – 2.5

CHEMIGATION USE DIRECTIONS

Apply MBI-110 EP according to the instructions below unless specified differently in the SELECTED CROPS section.

Chemigation (through drip irrigation)

1 – 4 quarts per acre

For chemigation applications for improved plant growth and suppression of soil-borne diseases, apply this product through drip irrigation (at a rate of 1-4 quarts per acre) (or 2 - 8 fl. oz./1000 row ft.) (immediately after transplant and at 10– to 21-day intervals) (or begin 14 days after transplant when (plant dip or) soil drench applications are used.)

Soil Drench, (shanked in,) Chemigation (drip)

1 – 4 quarts per acre

(For soil drench applications,) (For suppression of soil-borne diseases,) apply (this product) (MBI-110 EP) (as a soil drench following transplant or through chemigation.) (For application through sprinkler or sub-surface drip irrigation, apply) (at a concentration of 1 - 4 quarts per acre) (at seeding or) (transplant) (transplanting) (in up to 100 gallons of water, and at a) (in) sufficient (water) (rate to) (thoroughly soak the growing media and root zone.) (to soak the growing media throughout the root zone.) (to move the product into the root zone.) (Make an initial application of this product during or shortly after transplant to reduce transplant shock, suppress soil-borne diseases and improve root growth.) (Multiple (drench) applications can be made on a 10- to 21-day interval.) (Applications can be made in-season through sub-surface drip irrigation.)

Chemigation (sprinkler)

1 – 4 quarts per acre

For chemigation applications, apply MBI-110 EP through overhead irrigation at the rate of 1 - 4 quarts per acre immediately after transplant and at 10- to 21-day intervals or begin 14 days after transplant when plant dip or soil drench applications are used.

General Requirements -

- 1) Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Application Instructions for All Types of Chemigation -

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions. Product can be applied continuously or at any time during the water application.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Maintain agitation throughout the mixing and application process
- 4) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 5) 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.
- 6) 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.
- 7) 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.
- 8) 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.
- 9) 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.

Specific Requirements for Chemigation Systems Connected to Public Water Systems -

- 1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the 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.

Specific Requirements for Flood (Basin), Furrow and Border 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 for water source contamination from back flow if water flow stops.

PRE-PLANT DIP USE DIRECTIONS

Plant Dip

1 - 4 quarts per 100 gallons

For (plant dip) (transplant) applications for improved plant growth and suppression of soil-borne diseases, apply this product as a pre-plant dip immediately prior to transplanting.

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(MBI-110 EP can be applied as a pre-plant dip for improved plant health and suppression of certain soil-borne diseases. Apply MBI-110 EP in 1 – 4 quarts of product per 100 gallons of water as a pre-plant dip immediately prior to transplanting, unless specified differently in the SELECTED CROPS section.)

SEED TREATMENT USE DIRECTIONS

Seed Treatment

1 – 32 fl. oz. per 100 lbs. seed

For suppression of soil-borne diseases, apply this product as a seed treatment at the rate of 1 - 32 fl. oz per 100 lbs. seed. (Do not apply this product through any type of irrigation system.)

(MBI-110 EP can be applied as a seed dressing for suppression of soil-borne diseases to improve early-season root growth. MBI-110 EP may be applied as a water-based slurry with other registered seed treatment insecticides and fungicides through standard slurry- or mist-type commercial seed treatment equipment at the rate of 1-32 fluid ounces per 100 pounds of seed or as specified in the Application Rates For Selected Crops section.)

(MBI-110 EP can be applied as a seed treatment to improve plant health and for suppression against certain soil-borne diseases.)

Mixing instructions: Prepare no more mixture than is required for the immediate operation. Agitate the solution continuously during mixing and application. Mechanical mixing is recommended for proper mixing of MBI-110 EP mixtures.

MBI-110 EP alone: Add ½ of the required amount of water to the mix tank. With the agitator running, add the MBI-110 EP to the mix tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the MBI-110 EP has completely dispersed into the mix water. Maintain agitation until all the mixture has been applied.

MBI-110 EP + tank

mixtures: Add ½ of the required amount of water to the mix tank. Start the agitation before adding any tank-mix partners. In general, tank-mix partners should be added in this order: wettable powders, dry flowable formulations, liquid flowable formulations, and emulsifiable formulations such as MBI-110 EP. Always allow each tank-mix partner to become completely dispersed before adding the next component. Maintain continuous agitation until all components have been dispersed and throughout the application process.

Note: When using MBI-110 EP in tank mixtures, all products in water soluble packaging should be added to the tank before any other tank-mix partner, including MBI-110 EP. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank-mix partner to the tank.

If using MBI-110 EP in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix partner label. No label dosage may be exceeded and the most restrictive label precautions and limitations must be followed. This product should not be mixed with any product which prohibits such mixing.

For Commercial Seed Treatment: This product does not contain dye. All seed treated commercially with this product must be colored with an EPA-approved dye or colorant of a suitable color to prevent accidental use as food for humans or feed for animals. The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information: "This seed has been treated with *Bacillus amyloliquefaciens* strain F727. Do not use for food, feed or oil purposes."

(Do not apply this product through any type of irrigation system.)

SOIL TREATMENT USE DIRECTIONS

MBI-110 EP can be applied by soil drench, in-furrow and banded spray, or soil injection to improve plant

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health and to protect against certain soil-borne diseases.

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In general, MBI-110 EP can be applied by the following methods, unless specified differently in the SELECTED CROPS section:

Soil Drench Applications:

Soil Drench

1 – 4 quarts per acre

For soil drench applications, apply this product at a concentration of 1 - 4 quarts per acre at (seeding or) (transplant) in (up to) (100 gallons of water, and at a) sufficient (water) (rate to) thoroughly soak the growing media and root zone. (Make an initial application of this product during or shortly after transplant to reduce transplant shock, suppress soil-borne diseases and improve root growth.) Multiple drench applications can be made on a 10- to (14-) (21-) day interval.

Shanked-In and Injected Applications:

MBI-110 EP can be shanked-in or injected into the soil alone, or with most types of liquid nutrients. Refer to the In-Furrow and Banded Applications table below for rate instructions.

In-Furrow and Banded Applications:

In-Furrow

1 – 4 quart per acre (1 – 8 fl. oz. per 1000 ft. row)

For in-furrow applications, at planting, apply this product as an in-furrow spray at the rate of 1 – 8 fluid ounces per 1000 feet of row according to the chart (in the SOIL TREATMENT USE DIRECTIONS section)(below). Apply (this product)(MBI-110 EP) in (a minimum of) 5 - 15 gallons of water (per acre) so as the spray is directed into the seed furrow just before the seeds are covered. (For banded applications apply to the open seed furrow and lightly incorporate after the seed furrow is closed.)

Banded Soil drench

1 – 4 quarts/acre

Apply as a banded soil drench, or chemigate via microsprinkler, drip or other irrigation system in sufficient water to move product into the root zone. Begin applications during early shoot growth and continue applications on a 4- to 6-week interval until fall.

Rate	In-Furrow and Banded Application Rates Product per Acre (fl. oz.)								
	15" Rows	20" Rows	30" Rows	32" Rows	34" Rows	36" Rows	38" Rows	40" Rows	Twin row 30" centers
2.0 fl. oz. per 1000 ft. row	69.7	52.2	34.8	32.6	30.7	29.0	27.5	26.1	69.7
4.0 fl. oz. per 1000 ft. row		104.5	69.7	65.3	61.5	58.1	55.0	52.3	
6.0 fl. oz. per 1000 ft. row			104.5	97.9	92.2	87.1	82.5	78.4	
8.0 fl. oz. per 1000 ft. row					123.0	116.2	110.0	104.5	

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15" = 34,848 row ft./acre, 20" = 26,136 row ft./acre, 30" = 17,424 row ft./acre, 32" = 16,315 row ft./acre, 34" = 15,374 row ft./acre, 36" = 14,520 row ft./acre, 38" = 13,754 row ft./acre, 40" = 13,068 row ft./acre. Twin row 30" centers = 34,848 row ft./acre.

TRUNK INJECTION USE DIRECTIONS

Trunk Injection

1 - 5 tsp/linear yard of canopy width or 2 in of trunk diameter at breast height (DBH)(1.0- 5.0 mL/linear meter of canopy width or 5 cm DBH). Inject directly into tree.

Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions for specific applications. Repeat 2 to 4 times a year until control is reached.

(MBI-110 EP can be used for the prevention and treatment of Downy mildew, sudden oak death (*Phytophthora ramorum*), root rots (*Phytophthora* spp.), *Pythium* and various other labeled diseases of agricultural trees, indoor and outdoor ornamentals and forestry applications including domestic trees, conifers, pines and oaks.) (This product may be applied up to the day of harvest.)

POST-HARVEST SPRAY/ HUMIDIFICATION

See specific application recommendations pertaining to each crop for additional details.

APPLICATION RATES FOR SELECTED CROPS

MBI-110 EP can be applied up to and including the day of harvest.

The general recommended use rate for MBI-110 EP applied alone or as an alternate spray is 1 - 4 quarts per 100 gallons of water (0.25 – 1.0% v/v dilution). When tank-mixed with another fungicide, the use rate for MBI-110 EP is 0.5 – 4 quarts in 100 gallons of water. Use higher water volumes with larger sized crops and extensive foliage in order to secure thorough coverage. See specific application recommendations for additional details.

For greenhouse application, the recommended use rate for MBI-110 EP is 1 - 4 quarts in 100 gallons of water sprayed until just before point of runoff. When tank-mixed with another fungicide, the use rate for MBI-110 EP is 0.5 – 4 quarts in 100 gallons of water. Repeat applications at 7- to 10-day intervals as needed. See specific application recommendations for additional details. (This product may be used to control labeled diseases of container, bench, flat, plug, bed, or field-grown ornamentals in **greenhouses, shade-houses, outdoor nurseries, retail nurseries, and other landscape areas**) (Spray until just before point of runoff.)

MBI-110 EP has a **pre-harvest interval (PHI)** of **0 days**.

Do not enter (or allow worker entry) into treated areas during the **restricted-entry interval (REI)** of **4 hours**. [Statement can optionally appear after/below sections of the crop tables]

(Interchangeable language:

- ***1 quart MBI-110 EP per acre interchangeable with 1-2 tablespoons (tbsp.) MBI-110 EP per 1,000 square (sq.) feet (ft.), and multiples thereof***
- ***1 quart MBI-110 EP per 50 gallons water interchangeable with 1-2 tablespoons MBI-110 EP per gallon water, and multiples thereof***

FOR USE ON THE FOLLOWING CROPS FOR CONTROL OR SUPPRESSION OF (THE FOLLOWING) (DISEASES) (PATHOGENS)

- Aerial Stem Rot (*Erwinia carotovora*)
- Aerial Web Blight (*Rhizoctonia solani*)

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- Alfalfa Wilt (*Xylella* spp.)
- Alternaria Blight (*Alternaria cucumerina*)
- Alternaria Blotch (*Alternaria mali*)
- Alternaria Brown Spot (*Alternaria alternata*)
- Alternaria Fruit Rot (*Alternaria* spp.)
- Alternaria Leaf Blight (*Alternaria* spp.)
- Alternaria Leaf Spot (*Alternaria* spp.)
- Alternaria Leaf Spot, Boll Rot (*Alternaria* spp.)
- Alternaria Spot/Fruit Rot (*Alternaria alternata*)
- Angular Leaf Spot (*Mycosphaerella angulata*) (*Xanthomonas fragariae*)
- Anthracnose (*Colletotrichum* spp.) (*Gnomonia leptostyla*) (*Colletotrichum gloeosporioides*) (*Colletotrichum lagenarium*) (*Colletotrichum truncatum*) (*Elsinoe ampelina*)
- Anthracnose (*Colletotrichum coccodes*) (*Colletotrichum atramentarium*) (*Colletotrichum dematium*)
- Anthracnose (*Colletotrichum* spp.) – suppression only
- Anthracnose and Black Stem Rot (*Colletotrichum trifolii*)
- Anthracnose Boll Rot (*Glomeria* spp.)
- Anthracnose Fruit Rot (*Colletotrichum acutatum*)
- Anthracnose Leaf Blight (*Colletotrichum graminicola*)
- Anthracnose of Potato (*Colletotrichum coccodes*)
- Anthracnose, Boll Rot (*Glomeria* spp.)
- Apple Scab (*Venturia inaequalis*) (Suppression only)
- Ascochyta Blight, Boll Rot (*Ascochyta* spp.)
- Asian Soybean Rust (*Phakopsora pachyrhizi*)
- Aspergillus crown rot (*Aspergillus niger*)
- *Aureobasidium zeae*
- Bacteria (*Erwinia* spp.) (*Pseudomonas* spp.) (*Xanthomonas* spp.)
- Bacterial (Leaf) Spot (*Xanthomonas pruni*)
- Bacterial Blast (*Pseudomonas syringae*)
- Bacterial blight (*Pseudomonas cannabina*)
- Bacterial Blight (*Pseudomonas syringae*) (*Pseudomonas viridiflava*) (*Xanthomonas campestris* pv. *pruni*) (*Xanthomonas campestris*)
- Bacterial Blight and Streak (*Xanthomonas* spp.)
- Bacterial Blight/Rot (*Xanthomonas* spp.)
- Bacterial Canker (*Erwinia nigrifluens*) (*Pseudomonas syringae*) (*Pseudomonas* spp.) (*Xanthomonas campestris*) (*Xanthomonas* spp.)
- Bacterial Leaf Blight (*Xanthomonas campestris*)
- Bacterial Leaf Spot (*Pseudomonas* spp.)
- Bacterial leaf streak (*Xanthomonas campestris* pv. *Holcicola*)
- Bacterial leaf stripe (*Pseudomonas* spp.)
- Bacterial Pustule (*Xanthomonas* spp.)
- Bacterial rots (*Pantoea* spp.)
- Bacterial Speck (*Pseudomonas syringae* pv. *glycinea*) (*Pseudomonas syringae*)
- Bacterial Spot (*Xanthomonas pruni*) (*Xanthomonas* spp.) (*Xanthomonas cucurbitae*)
- Bacterial Wilt (*Clavibacter michiganense*)
- Barley yellow dwarf virus
- Bentgrass/Bermudagrass Dead Spot (*Ophiosphaerella agrostis*)
- Bermudagrass Decline (*Gaeumannomyces graminis* var. *graminis*)
- Bitter Rot (*Colletotrichum* spp.)
- Black dot disease (*Epicoccum nigrum*) (*Epicoccum purpurascens*)
- Black mildew (*Schiffnerula cannabis*)

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- Black Mold (*Alternaria alternata*)
- Black Root (*Thielaviopsis basicola*)
- Black Root Rot / Black Crown Rot (*Alternaria spp.*)
- Black Rot (*Guignardia bidwellii*)
- Black Rot/Frogeye Leaf Spot (*Botryosphaeria obtusa*)
- Black Scurf (*Rhizoctonia solani*)
- Black shank (*Phytophthora nicotianae*)
- Black Spot (*Guignardia citricarpa*), (*Phyllosticta citricarpa*)
- Black Spot of Rose (*Diplocarpon rosae*)
- Blossom Blight (*Monilinia spp.*)
- Blue Mold (*Peronospora tabacina*)
- Boll Rot (*Alternaria spp.*) (*Ascochyta spp.*) (*Fusarium spp.*) (*Phoma spp.*)
- Bot Rot (*Botryosphaeria dothidea*)
- Botryosphaeria Blight (*Botryosphaeria dothidea*)
- Botrytis (*Botrytis cinerea*)
- Botrytis Blight (*Botrytis cinerea*)
- Botrytis Bud Rot (*Botrytis cinerea*)
- Botrytis Bunch Rot (*Botrytis cinerea*)
- Botrytis Fruit Rot (*Botrytis cinerea*)
- Botrytis Leaf Blight (*Botrytis squamosa*)
- Botrytis Neck Rot (*Botrytis spp.*)
- Brooks Spot (*Mycosphaerella pomii*)
- Brown / Hull Rot (*Monilinia spp.*)
- Brown blight (*Alternaria alternata*) (*Alternaria tenuis*)
- Brown leaf spot and stem canker (*Ascochyta spp.*) (*Ascochyta prasadii*) (*Phoma spp.*) (*Didymella spp.*) (*Phoma exigua*) (*Phoma glomerata*) (*Phoma herbarum*)
- Brown patch (*Rhizoctonia solani*)
- Brown Rot (*Monilinia spp.*)
- Brown Rot Blossom Blight (*Monilinia laxa*)
- Brown Rot Fruit Rot (*Monilinia fruticola*)
- Brown Rot, Leaf Spots & Smuts (*Ceratobasidium spp.*) (*Cercospora spp.*) (*Cochliobolus spp.*) (*Drechslera spp.*)
- Brown Rust (*Puccinia melanocephala*)
- Brown Spot (*Alternaria spp.*) (*Septoria glycines*)
- Brown Stripe/Gray Streak (*Cercosporidium graminis*)
- Bull's Eye Rot (*Neofabraea spp.*)
- Cedar-Apple Rust (*Gymnosporangium juniperi-virginianae*) – suppression only
- Cercospora Blight (*Cercospora asparagi*) (*Cercospora kikuchii*)
- Cercospora Blight and Leaf Spot (*Cercospora spp.*)
- Cercospora Leaf Spot (*Cercospora citrulina*) (*Cercospora spp.*) (*Cercospora beticola*)
- Charcoal rot (*Macrophomina phaseolina*)
- Cherry Leaf Spot (*Blumeriella jaapii*)
- *Cladosporium spp*
- Cladosporium stem canker (*Cladosporium cladosporioides*) (*Cladosporium herbarum*) (*Mycosphaerella tassiana*)
- Clubroot (*Plasmodiophora brassicae*)
- Colletotrichum Crown Rot (*Colletotrichum spp.*) (*Colletotrichum graminicola*)
- Common Scab (*Streptomyces scabies*)
Suppression only
- Copper Spot (*Gloeocercospora sorghi*)
- Corn grey leaf spot (*Cercospora zeae-maydis*) (*Cercospora zeina*)
- Cotton root rot (*Phymatotrichopsis omnivora*) (*Phymatotrichum omnivorum*)
- Cranberry cotton ball (*Monilinia oxycocci*)
- Cranberry Early Rot (*Phyllosticta vaccinia*)
- Crown and Foot Rots (*Pseudocercospora herpotrichoides*, *Rhizoctonia*)

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- Crown gall (*Agrobacterium tumefaciens*)
- Curvularia leaf spot (*Curvularia cymbopogonis*) (*Curvularia lunata*) (*Cochliobolus lunatus*)
- Cylindrosporium blight (*Cylindrosporium spp.*) (*Cylindrosporium cannabinum*)
- Damping off (*Aspergillus flavus*) (*Botrytis cinerea*) (*Botryotinia fuckeliana*) (*Fusarium spp.*) (*Fusarium oxysporum*) (*Fusarium solani*) (*Nectria haematococca*) (*Macrophominia phaseolina*) (*Pellicularia filamentosa*) (*Phytophthora sp.*) (*Pythium spp.*) (*Pythium aphanidermatum*) (*Pythium debaryanum*) (*Pythium ultimum*) (*Rhizoctonia spp.*) (*Rhizoctonia solani*) (*Thanatephorus cucumeris*)
- Dichondra Rust (*Puccinia dichondrae*)
- Diplodia Boll Rot (*Diplodia spp.*)
- Diseases from pruning wounds including Eutypa (*Eutypa lata*), *Botryosphaeria rhodia*, *Phaeoacremonium aleophilum* and *P. chlamydospora*
- Dollar Spot (*Lanzia spp.*) (*Moellerodiscus spp.* formerly *Sclerotinia homeocarpa*)
- Downy Mildew (*Bremia lactucae*), (*Peronospora spp.*) (*Peronospora destructor*) (*Peronospora mansherica*) (*Peronospora parasitica*) (*Peronospora trifoliorum*) (*Plasmopara viburni*) (*Plasmopara viticola*) (*Pseudoperonospora cubensis*) (*Pseudoperonospora humuli*)
- Downy mildew (*Pseudoperonospora cannabina*) (*Pseudoperonospora humuli*)
- Early Blight (*Alternaria solani*)
- Early Blight of celery (*Cercospora apii*)
- Early Leaf Spot (*Cercospora arachidicola*)
- Early Rot in Cranberry (*Phyllosticta vaccinii*)
- Eastern Filbert Blight (*Anisogramma anomala*)
- Eutypa (*Eutypa lata*)
- Eye Spot (*Aureobasidium zeae*)
- Fire Blight (*Erwinia amylovora*) – suppression only
- Flyspeck (*Zygophiala jamaicensis*)
- Foliar Blight
- Frog-eyed Leaf Spot (*Cercospora sojina*)
- Fruit Finish
- Fungal Disease Complexes (*Bipolaris spp.*, *Monographella spp.*, *Phaeosphaeria spp.*)
- Fusarium foot rot and root rot (*Fusarium solani*)
- Fusarium Head Blight (*Fusarium graminearum*)
- *Fusarium oxysporum*
- Fusarium Patch (*Fusarium nivale*)
- *Fusarium proliferatum*
- Fusarium root and stem rot
- *Fusarium solani*
- *Fusarium spp.*
- Fusarium stem canker (*Fusarium sulphureum*) (*Gibberella cyanogena*) (*Gibberella saubinetii*)
- Fusarium wilt (*Fusarium oxysporum f.sp. cannabis*) (*Fusarium oxysporum f.sp. vasinfectum*)
- *Fusarium wilt (Fusarium oxysporum)*
- *Glomerella tucumanensis*, also known as *Colletotrichum falcatum* (Suppression Only)
- Gray leaf spot (*Cercospora sorghi*) (*Pyricularia grisea*) (*Cercospora zeae-maydis*)
- Gray Mold (*Botrytis cinerea*) (*Botrytis spp.*)
- Greasy Spot (*Mycosphaerella citri*)
- Green Fruit Rot (*Botrytis cinerea*)
- Gummy Stem Blight (*Didymella bryoniae*)
- Hard Lock

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- Hard Lock, Boll Rot (*Fusarium spp.*)
- Hemp canker (*Sclerotinia sclerotiorum*)
- Hemp Leaf Spot (*Bipolaris sp.*)
- Hull Rot (*Rhizopus stolonifer* and *Monilinia spp.*)
- Late Blight (*Phytophthora infestans*) (*Septoria apiicola*)
- Late Leaf Spot (*Cercosporidium personatum*)
- Late Rot in Cranberry
- Leaf Blight (*Pseudocercospora vitis*) (*Septosphaeria turcica*)
- Leaf Rust (*Pucciniastrum vaccinii*) (*Tranzschelia discolor*)
- Leaf Spot (*Alternaria spp.*) (*Cercospora spp.*) (*Cercospora beticola*) (*Corynespora cassicola*) (*Entomosporium spp.*) (*Mycosphaerella fragariae*) (*Myrothecium spp.*) (*Septoria spp.*)
- Leaf Spots (*Drechslera*, *Cochliobolus*, *Cercospora*)
- Leafspots and Blotches (*Pseudopeziza medicaginus*, *Stemphyllium spp.*, *Cercospora spp.*, *Stagonospora spp.*)
- Leptosphaeria blight (*Leptosphaeria cannabina*)(*Leptosphaeria woroninii*)(*Leptosphaeria acuta*)
- Melanose (*Diaporthe citri*)
- Melting Out Leaf Spot (*Bipolaris spp.*), (*Drechslera spp.*)
- Miscanthus blight
- Miscanthus streak virus
- Mosaic viruses
- Mummy Berry (*Monilinia vaccinii-corymbosi*),
- Necrotic Ring Spot (*Leptosphaeria korrae*)
- Northern Leaf Blight (*Exserohilum turcicum*)
- Northern Leaf Spot (*Cochliobolus carbonum*)
- Olive Knot (*Pseudomonas savastanoi*)
- Olive leaf spot (*Cercospora cannabis*) (*Pseudocercospora cannabina*)
- Onion Downy Mildew (*Peronospora destructor*)
- Onion Purple Blotch (*Alternaria porri*)
- Ophiobolus stem canker (*Ophiobolus cannabinus*)(*Ophiobolus anguillides*)
- Orange Rust (*Puccinia kuehnii*)
- Panicum mosaic virus
- Peg
- *Pencillium*
- Phoma Blight
- Phoma Blight, Boll Rot (*Phoma spp.*)
- Phoma stem canker (*Phoma herbarum*) (*Phoma exigua*)
- Phomopsis
- Phomopsis Fruit Rot (*Phomopsis viticola*)
- Phomopsis Leaf Blight (*Phomopsis obscurans*)
- Phomopsis Leaf Spot, Twig Blight, and Fruit Rot (*Phomopsis spp.*)
- Phomopsis stem canker (*Phomopsis cannabina*)(*Phomopsis achilleae*)(*Diaporthe arctii var. achilleae*)
- Phymatotrichum root rot (*Phymatotrichopsis omnivora*)(*Phymatotrichum omnivorum*)
- Phytophthora Blight (*Phytophthora capsici*)
- Phytophthora Root Rot and Crown Rot (*Phytophthora spp.*)
- Phytophthora (*Phytophthora spp.*)
- *Phytophthora spp.*
- Pin Rot Complex (*Alternaria/Xanthomonas*)
- Pink Patch (*Limonomyces roseipellis*)
- Pink Rot (*Phytophthora ervtrhoseptica*)(*Sclerotinia sclerotiorum*)
- Pink rot (*Trichothecium roseum*)(*Cephalothecium roseum*)

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- Pithomyces blight
- Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*) (*Phomopsis longicola*) (*Diaporthe* spp.)
- Pod and Stem Blight (*Diaporthe* spp.)
- Postbloom Fruit Drop (*Colletotrichum acutatum*)
- Powdery Mildew (*Erysiphe* spp.) (*Erysiphe betae*), (*Erysiphe cichoracearum*) (*Erysiphe cruciferarum*) (*Erysiphe graminis*) (*Erysiphe polygoni*) (*Leveillula taurica*) (*Microsphaera alni*) (*Oidium* spp.), (*Oidopsis taurica*) (*Podosphaera* spp.) (*Podosphaera leucotricha*) (*Sphaerotheca* spp.) (*Sphaerotheca fuliginea*) (*Sphaerotheca macularis*) (*Sphaerotheca pannosa*) (*Uncinula necator*)
- Powdery Mildew (*Golovinomyces*) (*Erysiphe cichoracearum*) (*Leveillula taurica*) (*Oidiopsis taurica*) (*Sphaerotheca macularis*) (*Sphaerotheca humuli*) (*Oidium* spp.)
- Powdery Mildew / Rusty Spot (*Podosphaera* spp.), (*Sphaerotheca pannosa*)
- *Puccinia* spp.
- Purple spot (*Stemphylium vesicarium*)
- Pythium (aerial blight phase) (*Pythium* spp.)
- Pythium (*Pythium* spp.)
- *Pythium* spp.
- *Pythium acanthicum*
- *Pythium aphanidermatum*
- Pythium Blight, Pythium Root Rot (*Pythium aphanidermatum*), (*Pythium* spp.)
- *Pythium dissoticum*
- *Pythium myriotylum*
- Pythium root and damping off
- Ramularia (*Ramularia* spp.)
- Ramularia Leaf Spot (*Ramularia cynarae*)
- Red boot (*Melanospora cannabis*)
- Red Rot (*Glomerella tucumanensis*, also known as *Colletotrichum falcatum*)
- Red Thread (*Laetisaria fuciformis*)
- Rhizoctonia Foliar Blight, Peg, and Root Rot (*Rhizoctonia solani*)
- Rhizoctonia Large Patch (*Rhizoctonia solani*)
- Rhizoctonia soreshin and root rot (*Rhizoctonia solani*)
- *Rhizoctonia* spp.
- Rice Blast (*Pyricularia grisea*)
- Ripe Rot (*Colletotrichum gloeosporioides*)
- Root and collar rots (*Phytophthora*, *Pythium*, *Fusarium*, *Rhizoctonia*)
- Rot (*Rhizoctonia* spp.), (*Pythium* spp.), (*Fusarium* spp.), (*Cylindrocarpon* spp.)
- Rust (*Aecidium cannabis*) (*Uredo kriegeriana*) (*Uromyces inconspicuus*)
- Rust (*Phykopsora* spp.) (*Puccinia* spp.) (*Puccinia asparagi*) (*Puccinia menthae*) (*Puccinia porri*) (*Tranzschelia discolor*) (*Uromyces appendiculatus*) (*Uromyces betae*)
- Rusty Spot (*Podosphaera leucotricha*)
- Scab (*Cladosporium carpophilum*) (*Sphaceloma perseae*) (*Elsinoe australis*) (*Elsinoe fawcetti*) (*Elsinoe mangiferae*) (*Venturia* spp.)
- Sclerotinia (*Sclerotinia Sclerotiorum*)
- Sclerotinia Head and Leaf Drop (*Sclerotinia minor*) (*Sclerotinia sclerotiorum*)
- Sclerotinia stem and crown rot (*Sclerotinia sclerotiorum*)
- Sclerotium root and stem rot (*Sclerotium rolfsii*) (*Athella rolfsii*)
- Seedling and Damping Off Disease Complex, including Root and Crown Rots (*Pythium*, *Phytophthora*, *Rhizoctonia*, and *Stagonospora* spp.)
- Septoria Brown Spot (*Septoria glycines*)

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- Septoria Leaf/Speckled Leaf Spot/Blotch (Septoria spp.)
- Sheath Spot and Blight (*Rhizoctonia oryzae*), (*Thanatephorus cucumeris*)
- Shot Hole (*Wilsonomyces carpophilus*)
- Sigatoka (*Mycosphaerella fijiensis*)
- Smut (*Tilletia* spp.) (*Tilletia barclayana*)
- Smuts and Bunts (*Tilletia* spp.)
- Snowmold, Gray (*Typhula* spp.)
- Snowmold, Pink (*Microdochium nivale*)
- Sooty Blotch (*Geastrumia polystigmati*), (*Leptodontium elatius*), (*Peltaster fructicola*)
- Sorghum downy mildew (*Peronosclerospora sorghi*)
- Sour Rot (*Alternaria tenuis*) (*Aspergillus* spp.) (*Botrytis cinerea*) (*Cladosporium herbarum*) (*Penicillium* spp.) (*Rhizopus arrhizus*)
- Southern Blight (*Sclerotium rolfsii*)
- Southern blight (*Sclerotium rolfsii*) (*Athella rolfsii*)
- Southern leaf blight (*Bipolaris* spp.) (*Cochliobolus heterostrophus*)
- Spring Black Stem (*Phoma medicaginus*)
- Spring Dead Spot (*Leptosphaeria korrae*), (*Leptosphaeria narmari*), (*Ophiosphaerella herpotricha*), (*Gaeumannomyces graminis*)
- Spur Blight (*Didymella* spp.), (*Phoma* spp.)
- Stem Rot (*Sclerotium oryzae*)
- Stemphylium leaf and stem spot (*Stemphylium botryosum*) (*Pleospora tarda*) (*Stemphylium cannabinum*)
- Stemphylium Leaf Blight (*Stemphylium vesicarium*)
- Stemphylium Leaf Spot (*Stemphylium* spp.)
- *Striatura ulcerosa* (*Pseudomonas amygdali* pv. *mori*)
- Stripe Smut (*Ustilago striiformis*), (*Urocystis agropyri*)
- Summer Bentgrass Decline
- Summer Patch, Poa Patch (*Magnaporthe poae*)
- Switchgrass Mosaic Virus
- Take-All Patch (*Gaeumannomyces graminis*)
- Tan Spot (*Pyrenophora tritici-repentis*)
- Tar spot (*Phyllachora cannabidis*)
- Target Spot (*Corynespora cassiicola*) (*Rhizoctonia solani*)
- Tropical rot (*Lasiodiplodia theobromae*)(*Botryodiplodia theobromae*)
- Twig blight (*Dendrophoma marconii*)(*Botryosphaeria marconii*)
- Verticillium wilt (*Verticillium* spp.) (*Verticillium albo-atrum*)
- *Verticillium* spp.
- Verticillium wilt (*Verticillium albo-atrum*)(*Verticillium dahliae*)
- Walnut Blight (*Xanthomonas campestris*)
- White leaf spot (*Phomopsis ganjae*)
- White Mold (*Sclerotinia sclerotiorum*) (*Sclerotium rolfsii*) (*Sclerotinia minor*) (*Sclerotinia trifoliorum*)
- white mold stem rot
- White Mold/ Sclerotinia Stem Rot (*Sclerotinia sclerotiorum*)
- White Rot (*Botryosphaeria dothidea*)
- White Rust (*Albugo occidentalis*)
- *Xanthomonas campestris*
- *Xanthomonas* leaf spot (*Xanthomonas campestris* pv. *cannabidis*)
- *Xanthomonas* Leaf Spot (*Xanthomonas campestris*)
- *Xanthomonas* spp.
- Yellow leaf spot (*Septoria cannabidis*)(*Septoria cannabina*)
- Yellow Patch (*Rhizoctonia cerealis*)
- Yellow Tuft/Downy Mildew (*Sclerophthora macrospora*)
- Zoysia Patch (*Rhizoctonia solani*)

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ROOT AND TUBER VEGETABLES

Beet, Carrot, Cassava, Ginger, Ginseng, Horseradish, Parsnip, Potato, Radish, Rutabaga, Sugar Beets, Sweet Potato, Turnip, (including those for seed production), Yam

(For control of Early Blight (*Alternaria solani*), Black Root Rot/Black Crown Rot (*Alternaria* spp.), and Late Blight (*Phytophthora infestans*), begin application of the labeled rate of this product in 25 - 100 gallons of water per acre soon after emergence when conditions are conducive to disease development. Repeat on a 7-day interval. In moderate to heavy disease pressure rotate or tank-mix MBI-110 EP with another product labeled for control of early blight or late blight.)

Potato Seed Piece Treatment

3 – 5 fl. oz. per 100 lbs. of seed pieces

(For seed piece applications for improved plant growth and suppression of soil-borne diseases, apply this product to seed pieces immediately prior to planting.)

Post-Harvest treatment of Potatoes for Late blight (*Phytophthora infestans*) and Pink rot (*Phytophthora erythroseptica*)

Dilute MBI-110 EP at 1:20 ratio with application water; 3 fl. oz. per 0.5 gal of water per ton of tubers
Spray, rinse or inject into humidification water prior to or during storage. Inject concentrate into water used in humidification or process water used for post-harvest storage, rinses and associated tanks, flumes and lines. (Do not use on cut potatoes.)

LEAVES OF ROOT AND TUBER VEGETABLES

Beet, Chervil, Rutabaga, Turnip

BULB VEGETABLES

Garlic, Leek, Onion (Bulb and Green), Shallot

LEAFY VEGETABLE CROPS (EXCEPT *BRASSICA* VEGETABLES)

Arugula, Celery, Cilantro, Corn Salad, Cress, Dandelion, Dock, Edible Chrysanthemum, Endive, Fennel, Head Lettuce, Leaf Lettuce, Mustard Greens, Parsley, Purslane, Radicchio, Rhubarb, Spinach, Swiss Chard, Turnip Greens, Watercress

(For application through sprinkler or sub-surface drip irrigation, apply at labeled rates in sufficient water to move the product into the root zone.)

BRASSICA (COLE) LEAFY VEGETABLES

Broccoli, Broccoli Rabe, Brussels Sprouts, Cabbage, Cauliflower, Cavalo, Chinese Broccoli, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens

LEGUME VEGETABLES, SUCCULENT OR DRIED (EXCLUDING PEANUTS)

Optional/Alternate text appears within parentheses, editorial text appears within brackets and is not intended for final printed label

Chick Peas, Dry Beans, Garbanzo Beans, Garden Pea, Green Beans, Lentils, Lima Beans, Peas, Shell Beans, Snap Beans, Soybean, Split Peas, and other legume crops (including those grown for seed or oil production)

(Consult your local Extension specialist or crop consultant regarding the optimum timing of fungicide applications.)

(For improved performance (against Asian soybean rust and Cercospora blight and frog-eyed leaf spot,) apply labeled rates of ([alternatively]¹ – 4 quarts of) this product in a tank-mix with another registered fungicide.)

FOLIAGE OF LEGUME VEGETABLES

Bean, Field Pea, Garden Pea, Soybean

FRUITING VEGETABLES

Eggplant, Ground Cherry, Okra, Pepper, Tomatillo, Tomato

(For improved control of bacterial spot or speck, tank-mix MBI-110 EP at labeled rates with a labeled rate of a copper-based fungicide or other fungicide labeled for control of bacterial spot or speck.)

CUCURBIT VEGETABLES

Acorn squash, Balsam apple, Balsam pear, Bitter melon, Butternut squash, Calabaza, Cantaloupe, Casaba, Chayote, Chinese cucumber, Chinese okra, Chinese waxgourd, Citron melon, Crenshaw melon, Crookneck squash, Cucumber, Cucuzza, Gherkin, Golden pershaw melon, Honeydew melon, Honey balls, Hubbard squash, Hyotan, Mango melon, Muskmelon, Persian melon, Pineapple melon, Pumpkin, Santa Claus melon, Scallop squash, Snake melon, Spaghetti squash, Straightneck squash, Summer Squash, Vegetable marrow, Watermelon, Zucchini

(When greenhouse cucurbits are under high disease conditions, use the shorter spray interval.)

CITRUS FRUIT

Grapefruit, Lemon, Lime, Orange, Tangelo, Tangerine/Mandarin

POME FRUITS

Apple, Crabapple, Loquat, Mayhaw, Oriental Pear, Pear, Quince

(Additional sprays beyond second cover may be needed on susceptible varieties, or when environmental conditions are conducive to rapid disease development. Use the higher label rate and use the shorter spray interval when conditions are conducive to rapid disease development.)

Fire Blight – Apply this product at 1 – 4 quarts per acre in 50 - 100 gallons of water per acre beginning at green tip and continuing through petal fall. For maximum control, use this product prior to infection events. During periods of rapid development and frequent infection periods, use spray intervals of 3 - 7 days.

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(Apply in sufficient water to provide full coverage. For improved performance, use this product in a rotational program with antibiotics registered for fire blight control. Use caution when selecting spray adjuvants. Select only those adjuvants which through prior experience do not affect fruit finish when combined with this product.)

(Proper orchard cultural practices are essential to eliminate fire blight-infected tissue from the orchard to assure good performance of any crop protection product. Care must be taken to remove and destroy dead and diseased wood from the orchard prior to and during the growing season.)

Scab – Apply 1 – 4 quarts of this product in 50 - 100 gallons of water per acre at green tip and through bloom when environmental conditions become favorable for primary scab development and repeat when conditions are conducive for ascospore release. (During periods of rapid development and frequent infection periods, use spray intervals of 3 - 7 days. Use caution when selecting spray adjuvants. Select only those adjuvants which through prior experience do not affect fruit finish when combined with this product.)

STONE FRUITS

Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum, Plumcot, Prune

Bacterial Canker (*Pseudomonas syringae*) – Apply the labeled rate of this product in 50 - 100 gallons of water per acre postharvest before fall rains. Applications beginning at shuck split to final cover spray should be made in a minimum of 75 gallons of water per acre using spray equipment designed to achieve full coverage of orchard crops. Water volume should not exceed 250 gallons of water per acre. (The use of a non-penetrating spreader-sticker may be used to improve coverage and rain fastness. Spray interval between applications should not exceed 10 days.)

Brown Rot Blossom Blight – Begin application of the labeled rate of this product in 50 - 100 gallons of water per acre at early bloom, and repeat through petal fall on a 7-day interval.

Powdery Mildew – Begin application of the labeled rate of this product in 50 - 100 gallons of water per acre at popcorn stage, and repeat on a 7-day interval.

Scab – Begin application of the labeled rate of this product in 50 - 100 gallons of water per acre at petal fall, and repeat on a 7-day interval.

For all (other) diseases – Begin application of the labeled rate of this product prior to disease development when environmental conditions and plant stage are conducive to rapid disease development, and repeat on a 7-day interval.

BERRIES (AND SMALL FRUIT)

Bushberries: Blueberry, Highbush Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, Salal

Caneberries: Blackberry (all varieties), Loganberry, Raspberry (red and black), and cultivars and/or hybrids of these

Cranberry[†]

Grape, Strawberry, Kiwi

Foliar (ground):

Mummy Berry – Initiate application of the labeled rate of this product at bud break stage of development. Apply this product preventatively and repeat on a 7- to 10-day interval.

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Botrytis Blight – Apply this product preventatively when the first disease symptoms are visible and reapply every 7 to 10 days.

Bacterial Canker – Apply this product prior to fall rains and repeat applications of the labeled rate of this product during dormancy before spring growth. This product can be tank-mixed with another registered fungicide for improved control of bacterial canker.

Anthracnose Fruit Rot and Alternaria Fruit Rot on blueberries – Initiate application of the labeled rate of this product at green tip and continue applications of the labeled rate of this product on a 7- to 10- day interval.

†Do not apply when Cranberry fields are flooded for harvest

(Increase water volume as plant growth increases to maintain thorough coverage. To protect pruning wounds from vine diseases apply MBI-110 EP at 1 – 4 quarts per 100 gallons of water per acre using ground application equipment that thoroughly wets all susceptible grapevine tissue. Apply as a directed spray immediately after pruning (within 24 hours). A second application is recommended approximately two weeks later. The addition of a registered spray dye is recommended to confirm thorough coverage of susceptible tissue.)

Angular leaf spot and Anthracnose - apply labeled rates of this product preventatively in 50 - 100 gallons of water per acre and repeat on a 7- to 10-day interval.

TREE NUTS

Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut (Black and English)

This product can be tank-mixed with another registered fungicide for improved control under heavy disease pressure.

Walnut Blight - For preventative control, apply labeled rates of this product in 50-100 gallons of water per acre. Repeat applications at 7- to 10-day intervals. Under conditions of moderate to heavy disease pressure, tank-mix this product at labeled rates with a copper-based fungicide/bactericide.

CEREAL GRAINS

Barley, Buckwheat, Corn (Sweet Corn, Field Corn, Popcorn, Silage Corn, Seed Corn, and other corn crops, including crops grown for seed), Milo, Millet, Oats, Rice†, Rye, Sorghum (Milo), Triticale, Wheat

†Do not apply to rice fields while flooded.

Foliar (aerial and ground): It is important to apply this product at the flag leaf stage to maximize yield.

FORAGE, FODDER AND STRAW OF CEREAL GRAINS GROUP

GRASS FORAGE, FODDER, AND HAY GROUP

NONGRASS ANIMAL FEEDS (FORAGE, FODDER, STRAW, AND HAY) GROUP

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HERBS AND SPICES GROUP
(Outdoor or enclosed, including those grown as bedding plants)

MINTS
(Outdoor or enclosed, including those grown as bedding plants)

OILSEED GROUP (does not include peanut or soybean)

(For ground applications for foliar and boll rot disease control.)

(Consult your local Extension specialist or crop consultant regarding the optimum timing of fungicide applications.)

STALK, STEM, AND LEAF PETIOLE VEGETABLES

Asparagus, Celery

TROPICAL AND SUBTROPICAL FRUITS, EDIBLE PEEL

Olive, Date, Fig, Guava

TROPICAL AND SUBTROPICAL FRUITS, INEDIBLE PEEL
Atemoya, Avocado, Banana, Dragon Fruit, Lychee, Mango, Papaya, Passionfruit, Plantain, Pineapple, Pomegranate, Prickly Pear, Sugar Apple

(Sigatoka - Initiate applications of labeled rates of this product when leaves first appear and repeat on a 7- to 10-day schedule. Apply in sufficient water by ground or air to obtain thorough coverage of foliage. For improved disease control, this product may be tank-mixed with oil or other fungicides registered for Sigatoka control at label rates.)

ARTICHOKE, GLOBE

HOPS AND DRIED CONES

Minimum spray volumes for hop growth stages are as follows:

Emergence to Training: Apply this product at the above labeled rate using a minimum spray volume of 20 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage.

Training to Wire-Touch: Apply this product at the above labeled rate per acre using a minimum spray volume of 50 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage.

Wire-Touch through Harvest: Apply this product at the above labeled rate using a minimum of 100 gallons of water per acre. Higher water volumes may be necessary to achieve thorough coverage after side arms

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develop. Apply adequate spray volume to achieve complete spray coverage. Apply at the higher labeled rates when moderate to high disease pressure is present or expected.

PEANUT

QUINOA

SUGARCANE

GRASS SEED

HEMP

ORNAMENTAL GRASSES

ORNAMENTAL PLANTS

TOBACCO

Avoid excessive amounts of water that result in spray material dripping from the foliage. (If necessary, repeat applications of the labeled rate of this product at a 7- to 10-day interval.)

TURFGRASS

Bluegrass, Bentgrass, Bermudagrass, Dichondra, Fescue, Orchardgrass, *Poa annua*, Ryegrass, St. Augustine, Zoysia mixtures, and other new or established grasses

(This product aids in control of turf diseases and improves turf quality. For improved performance under moderate to severe disease pressure, use shorter spray intervals or use this product in a tank-mix or rotational program with other registered fungicides.)

(Spray water volumes must be of at least 2 gallons of water per 1000 sq. ft. Under moderate to high disease pressure, tank-mix with other registered fungicides.)

FLOWERING PLANTS

BEDDING PLANTS

TI PALM

SHADE AND ORNAMENTAL TREES AND FORESTS (including nursery stock)

TREE FARMS AND PLANTATIONS (including nursery stock)
Conifers, including Christmas Trees and Deciduous Trees

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Avoid freezing.

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:

For plastic containers less than or equal to 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

[and/or]

For plastic containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

[and/or]

For plastic, refillable containers: Refill this container with MBI-110 EP only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes.

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Pour or pump rinsate into application equipment or rinsate collection system. Repeat rinsing procedure two more times.

Marrone Bio Innovations is a member of the Ag Container Recycling Council.
Visit <http://www.acrecycle.org/contact.html> for information on how to arrange pick-up of this empty pesticide container.



WARRANTY

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. To the extent consistent with applicable law, the user assumes all risks of use, storage or handling that are not in accordance with the accompanying directions.

Label date:

(Made in the U.S.A.)

US Patent No. 9,125,419

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1540 Drew Ave., Davis, CA 95618

1-877-664-4476

info@marronebio.com

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Sublabel B: Home & Garden Use

MBI-110 EP

Broad-spectrum biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases

(Biological) (Microbial) (Fungicide)
Aqueous Suspension



(Can Be Used in Organic Gardening) (For Organic Gardening)(



Active ingredient: <i>Bacillus amyloliquefaciens</i> strain F727* cells and spent fermentation media	96.4%
Other ingredients:	3.6%
Total	100.0 %

*Contains a minimum of 1 X 10⁹ cfu/mL of product

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
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.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For non-emergency information on product usage for example, call (1-877-644-4476), Monday through Friday, 9a.m. to 5 p.m Pacific Time. For medical emergencies call your poison control center at 1-800-222-1222.	

EPA Reg. No.: 84059-28

EPA Est. No.: XXXXX-XX-XXX

Net Contents: XX

(Batch)(Lot) No: XXXX

Manufactured by: Marrone Bio Innovations, Inc.
1540 Drew Ave.
Davis, CA 95618 USA
1-877-664-4476; info@marronebio.com

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS: To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems.

DIRECTIONS FOR USE

It is a violation of Federal law to apply this product in a manner inconsistent with its labeling.

MBI-110 EP is a broad-spectrum fungicide used for the control or suppression of a broad range of foliar diseases. MBI-110 EP may be used on vegetable crops, roses, fruits, nuts, flowers, foliage, houseplants, trees and shrubs located in residential landscapes. MBI-110 EP can be applied up to and on the day of harvest on all fruits and vegetables.

WHEN TO USE

For best results, apply MBI-110 EP prior to disease development or at the first sign of diseases and continue applying on a 7- to 10-day schedule until disease pressure subsides.

BEFORE YOU USE

Read and follow these directions when using.

Do not allow spray to drift from application site.

Use only with pressurized hand-held sprayers, spray trigger bottles, and hose-end sprayers.

Do not allow spray mixture to stand overnight or for prolonged periods.

MBI-110 EP can be applied in commonly-used pressurized hand-held sprayers, spray trigger bottles, and hose-end sprayers.

HOW TO USE FOR HAND-HELD SPRAYERS AND SPRAY TRIGGER BOTTLES

Shake well before use.

Fill sprayer or bottle with appropriate amount of water and concentrate.

Mix the spray solution thoroughly.

Keep the spray solution agitated during application.

HOW TO USE FOR HOSE-END SPRAYERS

Shake well before use.

Follow hose-end sprayer instructions to determine how to fill, set dial, clean and disconnect from hose.

Set dial on sprayer to deliver rate as directed below.

HOW MUCH TO USE FOR ALL APPLICATIONS:

1 fluid ounce (2 TBSP) of MBI-110 EP per gallon of water.

Spray plants to complete wetness, covering both top and bottom leaf surfaces to ensure complete coverage.

Some pesticides can cause phytotoxic effects ranging from slight burning or browning of leaves to distorted leaves, fruit, flowers or stems. Damage symptoms may vary with the type of plant that has been treated. It is impossible to test all plant species for phytotoxicity. To assure that the plants to be treated are not sensitive to the treatment, apply a small amount of the product to a few leaves or the above

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ground portion of the plant and check back in 2 - 4 days for signs of phytotoxicity. Use product according to label directions.

DISEASES CONTROLLED OR SUPPRESSED ON VEGETABLES, FRUITS, NUTS, ORNAMENTAL PLANTS, HEMP, TOBACCO, TREES, SHRUBS, FLOWERS INCLUDING HOPS, FOLIAGE, GREEN, AND TROPICAL PLANTS

Anthraxnose (*Colletotrichum* spp.)
Bacteria (*Erwinia* spp., *Pseudomonas* spp., *Xanthomonas* spp.)
Bacterial Leaf Blight (*Xanthomonas campestris*)
Bacterial Speck (*Pseudomonas syringae* pv. Tomato)
Bacterial Spot (*Xanthomonas* spp.)
Bean Rust (*Uromyces appendiculatus*)
Black Mold (*Alternaria alternata*)
Black Rot/Black Crown Rot (*Alternaria* spp.)
Black Spot of Rose (*Diplocarpon rosea*)
Botrytis (*Botrytis* spp.)
Botrytis Leaf Blight (*Botrytis squamosa*)
Botrytis Neck Rot (*Botrytis* spp.)
Downy Mildew (*Bremia lactucae*, *Peronospora* spp., and *Plasmopara viticola*) - suppression
Early Blight (*Alternaria solani*)
Fire Blight (*Erwinia amylovora*) – suppression
Gray Mold (*Botrytis cinerea*)
Greasy Spot (*Mycosphaerella citri*)
Late Blight (*Phytophthora infestans*) – suppression
Leaf Spots (*Alternaria* spp., *Cercospora* spp. *Septoria* spp.)
Onion Downy Mildew (*Peronospora destructor*)
Onion Purple Blotch (*Alternaria porri*)
Pin Rot (*Alternaria/Xanthomonas* complex)
Powdery Mildew (*Uncinula necator*, *Erysiphe* spp., *Sphaerotheca* spp., *Oidiopsis taurica*, *Leveillula taurica*, *Podosphaera leucotricha*, *Oidium* spp., *Podosphaera* spp.)
Rust (*Puccinia* spp.)
Scab (*Venturia* spp.) – suppression
Sclerotinia Head and Leaf Drop (*Sclerotinia* spp.) – suppression
Sour Rot (*Alternaria tenuis*, *Aspergillus* spp., *Botrytis cinerea*, *Cladosporium herbarum*, *Penicillium* spp., *Rhizopus arrhizus*)
Target Spot (*Corynespora cassiicola*)
Walnut Blight (*Xanthomonas campestris*)
White Mold (*Sclerotinia sclerotiorum* and *S. minor*)

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STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Avoid freezing.

Pesticide Disposal and Container Handling: Nonrefillable container. Do not reuse or refill this container.

If empty: Place in trash or offer for recycling if available.

If partially filled: Call your local solid waste agency or (800) 858-7378 (National Pesticide Information Center) for disposal instructions. Never place unused product down any indoor or outdoor drain.

WARRANTY

To the extent consistent with applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. To the extent consistent with applicable law, the user assumes all risks of use, storage or handling that are not in accordance with the accompanying directions.

Label date:

(Made in the U.S.A.)

US Patent No. 9,125,419

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OPTIONAL CLAIMS

The following claims may appear on any label panel

1. Biofungicide
2. Controls/Prevents common garden diseases as labeled.
3. Controls/Prevents powdery mildew, leaf spot and rust
4. Controls/Prevents black spot on rose
5. Fungal and bacterial disease control of labeled diseases
6. Defending gardens against diseases...one plant at a time!
7. Use on labeled fruits, vegetables and ornamentals
8. Can be applied as a pre-plant dip [for improved plant health]
9. Can be applied as a soil drench application
10. For use on labeled ornamental plants and edible crops/fruits/vegetables.
11. For use on labeled vegetables, roses, fruits, berries, nuts, flowers, bedding plants, houseplants, (ornamental) trees and shrubs [located in residential landscapes].
12. MBI-110 EP can be used on labeled vegetable(s) [crops], roses, fruits, berries, nuts, flowers, foliage, houseplants, (ornamental) trees and shrubs [located in residential landscapes].
13. MBI-110 EP is a broad-spectrum fungicide used for the control or suppression of a broad range of labeled foliar [fungal and bacterial] diseases.
14. MBI-110 EP can be applied up to and on the day of harvest [on all labeled fruits and vegetables].
15. This container is made with X% recycled material
16. Label date:
17. US Patents No. 4,863,734 and No. 5,989,429
18. Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.
19. © insert company copyright information
20. World rights reserved
21. Distributed by: insert company name and address
22. company website
23. [For] questions/comments
24. The logo consists of a rectangular box with rounded corners. At the top, there are three arrows pointing to the right. Inside the box, the letters 'OMRI' are written in a large, bold, sans-serif font. Below 'OMRI', the word 'LISTED' is written in a smaller, bold, sans-serif font. At the bottom of the box, the text 'For Organic Use' is written in a small, sans-serif font.
25.  Can be used for organic gardening
26.  For (use in) organic gardening
27. Optional Language: (*) and (*= Not labeled for this use in California)
28. Repackaging or relabeling of this product without express written permission from Marrone Bio Innovations is prohibited.
29. Do not enter into treated areas during the restricted-entry interval (REI) of 4 hours.
30. UPC code
31. FRAC code and logo
32. RF code
33. Bio with Bite
34. For labeled disease control
35. For labeled fungal control
36. For organic production
37. US MRL exempt
38. Protection from Multiple Labeled Diseases
39. Exempt from maximum residue limit
40. Trial Tested
41. (number)+ trials
42. Read full label before use
43. MBI-110 EP can be applied by (any labeled use pattern) to protect against labeled (diseases) and (fungal pathogens) (any labeled pest).
44. 1-10 tablespoons per 1,000 sq. ft. [must be consistent with rates to be listed on label]
45. For turf
46. For recreational turf and landscapes [when crop is listed]
47. (Specify pest:) (Tank-mix) (or rotate) with a (fungicide) for improved control.

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48. Refer to the table in the SOIL TREATMENT USE DIRECTIONS (In-Furrow Applications) section to determine the proper rate per 1000 foot of row.
49. MBI-110 EP may be used as part of an Integrated Pest Management System.
50. MBI-110 EP can be applied following a soil fumigant.
51. Use the high(er) labeled rate when high(er) (disease)(fungal pathogen) pressure is expected.
52. WSDA seal/logo/tagline