



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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

October 1, 2015

Keith Pitts  
Vice President, Regulatory Affairs  
Marrone Bio Innovations  
1540 Drew Avenue  
Davis, CA 95618

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment  
– Revised Agricultural Use Requirements and Addition of Nematicide Sublabel  
Product Name: MBI-206  
EPA Registration Number: 84059-14  
Application Dates: August 12, 2015, September 30, 2015  
OPP Decision Number: 508402  
New OPP Decision Number: 509594

Dear Mr. Pitts:

In an application dated August 12, 2015 (OPP Decision No. 508402), you notified the U.S. Environmental Protection Agency (EPA) that you added a nematicide sublabel and statements to the Agricultural Use Requirements section on the MBI-206 product label. Subsequently, the EPA determined that the action requested did not fall under the scope of Pesticide Registration Notice 98-10 and therefore converted the notification to a minor label amendment (OPP Decision No. 509594).

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

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

If you have any questions, please contact Michael Glikes of my team by phone at (703)305-6231 or via email at [glikes.michael@epa.gov](mailto:glikes.michael@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Shannon Borges", is positioned above the typed name.

Shannon Borges, Team Leader  
Microbial Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

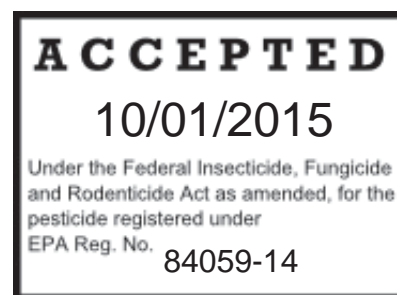
# MBI-206 EP

(Alternate Names: VENERATE, VENERATE XC,  
VENERATE PTO, CEREBIUS, SENTINAS,  
NEMORAX, MAJESTENE, EVATE)

<b>MASTER LABEL, containing:</b>
<b>Sublabel A: Agricultural Crop Use</b>
<b>Sublabel B: Greenhouse, Nursery, Turf &amp; Professional Landscape Use</b>
<b>Sublabel C: Nematicide Use</b>
<b>Sublabel D: Home &amp; Garden Use</b>
<b>Optional Label Claims</b>

EPA Reg. No.: 84059-14

**Manufactured by:** Marrone Bio Innovations, Inc.  
1540 Drew Ave.  
Davis, CA 95618 USA  
1-877-664-4476; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); [info@marronebio.com](mailto:info@marronebio.com)



## Sublabel A: Agricultural Crop Use

# MBI-206 EP

## (Alternate Names: VENERATE, VENERATE XC)

### BIOLOGICAL INSECTICIDE



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

**Active Ingredient:** Heat-killed *Burkholderia* spp. strain A396 cells and spent fermentation media .....94.46%

**Other ingredients:** .....5.54%

**Total:** .....100.00%

\*Contains not less than 1,500 Beet Armyworm Killing Units (BAWKU)/mg. Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

**EPA Reg. No.:** 84059-14

**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; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); [info@marronebio.com](mailto:info@marronebio.com)

US Patents No. XXXXX

XXXX® is a registered trademark of Marrone Bio Innovations, Inc.

Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear goggles or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear. Mixers / loaders and applicators must wear a dust / mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning and maintaining PPE. If there are 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 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

**USER SAFETY RECOMMENDATIONS:** Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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. See the Directions for Use section of this label for application instructions that minimize risk to bees and other beneficial insects, *including those used in Integrated Pest Management (IPM) programs or organic agriculture.*

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

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

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:

- Protective eyewear
- Coveralls
- Chemical resistant gloves (made from any waterproof material)
- Shoes plus socks

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

## PRODUCT INFORMATION

MBI-206 EP is a biological insecticide containing killed cells of *Burkholderia spp.* strain A396 and spent fermentation media, for use on agricultural crops against the pests listed in the Directions for Use section. MBI-206 EP controls insect pests by enzymatic degradation of exoskeletal structures and interference with the molting process leading to mortality through contact and/or ingestion. MBI-206 EP controls or suppresses many foliar feeding pests including caterpillars and foliage feeding coleopteran and against many soft-bodied insects such as, aphids, whiteflies and plant sucking mites infesting labeled crops and plants. For insect control, the concentrate of MBI-206 EP must be mixed with water and applied as a foliar spray with ground or aerial equipment equipped for conventional insecticide spraying.

MBI-206 EP can be used in either the field or greenhouse for the control of any labeled pest.

## GENERAL USE INSTRUCTIONS – FOR INSECT CONTROL

MBI-206 EP is an insecticide for use against listed insects. Close scouting and early attention to infestations is highly recommended. Proper timing of application targeting newly hatched larvae, nymphs or immature pests is important for optimal results.

Thorough coverage of infested plant parts is necessary for effective control. For some crops, directed drop nozzles by ground machine are required.

Under heavy pest populations, use the higher label rates, shorten the spray interval, increase the spray volume to improve coverage, and/or apply in tank mixture with another product that has activity on the target pest.

Repeat applications at an interval sufficient to maintain control, usually 3-10 days depending upon plant growth rate, insect and mite activity, and other factors. If attempting to control an insect population with a single application, make the treatment when egg hatch is essentially complete but before economic damage occurs.

The use of adjuvants with MBI-206 is not recommended, except to improve control of insect pests in situations where achieving uniform plant coverage is difficult such as closed crop canopy, dense foliage and penetration into waxy leaf surfaces.

Bees and beneficial insects-:

- To minimize potential exposure to bees and other pollinating insects, do not apply while bees are foraging.
  - Do not allow product to drift to blooming crops or weeds if bees are foraging.
- Minimize spray drift away from the target area to reduce effects to other non-target insects.

MBI-206 EP has been evaluated for toxicity to non-target insects in a variety of bioassays and on a variety of crops under various normal growing conditions. However, testing all beneficial insects, in all situations, mixtures and combinations, is not feasible. Prior to treating entire crop where the release of beneficial insects serve as part of an Integrated Pest Management (IPM) program, consult with an extension specialist, a pest control advisor (PCA) or with the product manufacturer.

MBI-206 EP has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

## **GROUND AND AERIAL APPLICATION**

Apply MBI-206 EP in ground and aerial equipment with quantities of water sufficient to provide thorough coverage of infested plant parts. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage.

### **Mixing directions**

**Important** –Fill tank  $\frac{1}{2}$  to  $\frac{3}{4}$  of desired amount of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding MBI-206 EP. Add the desired volume of MBI-206 EP to the mix tank and the remaining volume of water and continue circulation. Maintain circulation while loading and spraying. Do not mix more MBI-206 EP than can be used in 24 hours. Use a strainer no finer than 50 mesh in conventional spray systems.

### **Tank mixing**

Do not combine MBI-206 EP in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, or non-injurious under your use conditions.

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

### **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. 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: This application method is based on the premise that all plant parts are thoroughly wetted, to the point of runoff, with spray solution. To determine the number of gallons of dilute spray per acre, contact your extension specialist, state agricultural experiment station, or certified pest control advisor for assistance.
- 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 APPLICATION AND DRIFT REDUCTION ADVISORY INFORMATION**

**General:** 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. Insect 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 should 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 the largest droplets that will 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 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. Use low-drift nozzles, such as solid stream nozzles that are oriented straight back to 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 3–10 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 to 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. Do not allow product to drift to blooming crops or weeds if bees are foraging. Minimize spray drift away from the target area to reduce effects to other non-target insects.

## SEED TREATMENT APPLICATION

MBI-206 EP can be applied as a seed dressing at plant or in commercial seed treatments for suppression of insect and nematode damage. Apply MBI-206 EP as a water-based slurry with other registered seed treatment insecticides, nematicides and fungicides through standard slurry- or mist-type commercial seed treatment equipment.

**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-206 EP mixtures. For seed treatment, apply 8 ounces of MBI-206 EP per 100 pounds of seed.

MBI-206 EP **alone:** Add ½ of the required amount of water to the mix tank. With the agitator running, add the MBI-206 EP to the mix tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the MBI-206 EP has completely dispersed into the mix water. Maintain agitation until all the mixture has been applied.

MBI-206 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. 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-206 EP in tank-mixtures, all products in water soluble packaging should be added to the tank before any other tank-mix partner, including MBI-206 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-206 EP in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations that 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 that prohibits such mixing.

**For Pre-plant Seed Treatment:** Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seeds beyond planting time.

**For Commercial Seed Treatment:** The active ingredient Heat-killed *Burkholderia spp.* Strain A396 cells and spent fermentation media is exempt from the requirement of a tolerance for residues in and on all food commodities. Commercial seed treaters are not required to add a dye to this product before treating seed. Treated seed can be used for or mixed with food or animal feed, or processed for oil.

## SOIL TREATMENT USE DIRECTIONS

MBI-206 EP can be applied by soil drench, in-furrow spray, or soil injection to protect against certain soil-borne insects or nematodes.

In general, MBI-206 EP can be applied by the following methods, unless specified differently in the SELECTED CROPS section:

**Soil Drench Applications:** Apply MBI-206 EP at a concentration of 1–8 quarts per 100 gallons of water and at a sufficient rate to thoroughly soak the growing media and root zone. Multiple drench applications can be made on a 10–14 day interval for insect control treatments. Nematode control treatments are limited to pre-plant or at-plant soil drench applications.

**Shanked-In and Injected Applications:** MBI-206 EP can be shanked-in or injected into the soil alone, or with most types of liquid nutrients. Use a jar test to confirm physical compatibility prior to application.

**In-Furrow Applications:** At planting, apply MBI-206 EP as an in-furrow spray or as a 5-7 inch band (T-band) over an open furrow at the rate of 1–8 quarts per acre, or 1.8–19.6 fluid ounces per 1000 feet of row, according to the chart below. Apply MBI-206 EP in 10–20 gallons of water per acre so as the spray is directed over the seed furrow just before the seeds are covered.

Rate	In-Furrow and T-band Application Rates Product per 1000 ft. row.					
	30" Rows	32" Rows	34" Rows	36" Rows	38" Rows	40" Rows
1–8 quarts MBI-206 EP per acre	1.8-14.7 fluid ounces	2.0-15.7 fluid ounces	2.1-16.7 fluid ounces	2.2-17.6 fluid ounces	2.3-18.6 fluid ounces	2.4-19.6 fluid ounces

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.

#### CHEMIGATION USE – DIRECTIONS FOR INSECT CONTROL

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand moved irrigation systems. Do not apply this product through any other type of irrigation systems. Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system.

#### Spray preparation

First prepare a suspension of MBI-206 EP in a mix tank. Fill tank  $\frac{1}{2}$  to  $\frac{3}{4}$  the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of MBI-206 EP, and then the remaining volume of water. Then set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of MBI-206 EP into the irrigation water line so as to deliver the desired rate per acre. Inject the suspension of MBI-206 EP with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Any questions on calibration should be directed to your State Extension Service Specialists, to equipment manufacturers or other experts.

Do not combine MBI-206 EP with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. MBI-206 EP has not been fully evaluated for compatibility with all adjuvants or surfactants. It is advisable to conduct a spray compatibility test if a mixture with adjuvants or surfactants is planned.

#### General Requirements

- 1) Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.
- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### **Specific Requirements for Chemigation Systems Connected to Public Water Systems**

- 1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4) The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Specific Requirements for Sprinkler Chemigation**

- 1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3) The pesticide injection pipeline must also contain a functional, normally closed, 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.

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

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Utilize agitation to keep solution in suspension.

#### **SHAKE WELL BEFORE USE**

#### **FOR USE ON THE FOLLOWING CROPS FOR CONTROL OR SUPPRESSION OF INSECTS AND MITES**

**Pre-harvest Interval (PHI) = 0 days**

---

##### **Asparagus**

**1–8 quarts MBI-206 EP per acre**

Armyworms

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids,

Stink bugs - tank-mix with a contact insecticide for improved control.

---

##### **Bananas**

**1–4 quarts MBI-206 EP per acre**

Banana skipper, banana rust thrips, Hawaiian flower thrips

**1–8 quarts MBI-206 EP per acre (Suppression)**

Stink bugs - tank-mix with a contact insecticide for improved control.

---

##### **Bulbs**

**Leek, Garlic and onion (bulb and green)**

**1–8 quarts MBI-206 EP per acre**

Loopers, omnivorous leafrollers, hornworm, imported cabbageworm, diamondback moth, green cloverworm, webworm, saltmarsh caterpillar, armyworms, cutworm, cross-striped cabbageworm, *Heliothis*

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips

---

##### **Bushberries**

**Blueberry, High Bush Blueberry, Currant, Gooseberry, Huckleberry, Elderberry, Juneberry, Ligonberry, Salal**

**1–8 quarts MBI-206 EP per acre**

Armyworms, cherry fruitworm, cranberry fruitworm, fireworms, leafrollers, loopers, plum curculio

For plum curculio, begin applications when adults are active and prior to start of oviposition. Repeat applications on a 4-7 day interval until adults are no longer active and developing fruit is no longer susceptible to damage. Rotation or tank-mixing with other insecticides labeled for plum curculio is recommended.

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, blueberry blossom weevil,

Blueberry maggot, spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

**Caneberries**

**Blackberry, Loganberry, Red and Black Raspberry, and Cultivars and/or hybrids of these**

**1–8 quarts MBI-206 EP per acre**

Armyworms, green fruitworm, leafrollers, loopers, western raspberry fruitworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips,

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

**Cereal Grains**

**Barley, Buckwheat, Grain Amaranth, Milo, Oats, Pearl Millet, Proso Millet, Rye, Sorghum, Triticale, Wheat**

**1–8 quarts MBI-206 EP per acre**

Armyworms, corn earworm (headworm), southwestern corn borer, web worms

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids (including greenbug), thrips, chinch bugs, mites

1.8 – 19.6 fluid ounces per 1000 foot row

For low to medium infestations of soil insects, use an at-planting in-furrow application in 10-20 gallons of water per acre. When high pest infestations are anticipated or encountered, other effective soil treatments may be needed.



Cutworms, root and seed maggots, seed corn beetle, wireworms

---

## **Citrus**

### **Grapefruit, Lemons, Limes, Oranges, Tangerines**

#### **1–8 quarts MBI-206 EP per acre**

Fruittree leafroller, orangedog, citrus cutworm, citrus leafminer

#### **1–8 quarts MBI-206 EP per acre**

Citrus rust mite, Asian citrus psyllid.

#### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, Florida red scale, twospotted spider mite, Texas citrus mite, citrus red mite, six-spotted mite, citrus thrips, mealybugs,

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

## **Cranberry**

#### **1–8 quarts MBI-206 EP per acre**

Armyworms, leafrollers, fireworms, loopers, sparganothis fruitworm, cranberry fruitworm, spanworms

#### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, mites, cranberry blossom weevil

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

## **Cole Crops**

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

#### **1–8 quarts MBI-206 EP per acre**

Diamondback moth, cabbage looper, imported cabbageworm, cabbage webworm, armyworms

#### **1–8 quarts MBI-206 EP per acre (Suppression)**

Whiteflies, thrips, aphids, leafhoppers, mites, billbugs, Swede midge

Stink bugs and plant bugs - tank-mix with a contact insecticide for improved control.



---

**Corn (Field Corn, Sweet Corn, Popcorn and Corn Grown for Seed)****1–8 quarts MBI-206 EP per acre**

Armyworm, European corn borer, southwestern corn borer, western bean cutworm, corn earworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Corn leaf aphid, mites, leafhoppers

Stink bugs and plant bugs - tank-mix with a contact insecticide for improved control.

1.8 – 19.6 fluid ounces per 1000 foot row

For low to medium infestations of soil insects, use an at-planting in-furrow or T-band application in 10-20 gallons of water per acre. When high pest infestations are anticipated or encountered, other effective soil treatments may be needed.

Cutworms, root and seed maggots, seed corn beetle, wireworms, southern, western, and northern corn rootworm larvae.

---

**Cotton****1–8 quarts MBI-206 EP per acre**

European corn borer, cotton bollworm, tobacco budworm, loopers (soybean and cabbage), saltmarsh caterpillar, armyworms

**1–8 quarts MBI-206 EP per acre (Suppression)**

Cotton aphid, leafhoppers, thrips, mites

Stink bugs and plant bugs - tank-mix with a contact insecticide for improved control.

---

**Cucurbit Vegetables**

**Cucumber, edible gourds, muskmelon (cantaloupe, muskmelon, etc.), pumpkin, watermelon, winter and summer squash**

**1–8 quarts MBI-206 EP per acre**

Armyworm, cabbage looper, melonworm, pickleworm, rindworm complex

**1–8 quarts MBI-206 EP per acre (Suppression)**

Silverleaf whitefly, whiteflies, aphids, thrips, mites,

Spotted wing drosophila – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

**Fig****1–8 quarts MBI-206 EP per acre**

Navel orangeworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips

Spotted wing drosophila – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

**Fruiting Vegetables**

**Tomato, Tomatillo, Pepper, Ground Cherry, Pepino, Okra and Eggplant**

**1–8 quarts MBI-206 EP per acre**

Loopers, hornworm, tomato fruitworm, variegated cutworm, saltmarsh caterpillar, armyworms, tomato pinworm, European corn borer, pepper weevil, thrips

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, mites, whiteflies, psyllids

Spotted wing drosophila – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs, pepper weevil, plant bugs, Lygus - tank-mix with a contact insecticide for improved control. Use pheromone traps to time applications for control of pepper weevil.

---

**Grape****1–8 quarts MBI-206 EP per acre**

Grape leaf skeletonizer, grape leafroller, omnivorous leafroller, orange tortrix, oblique banded leafroller, grape berry moth, leafhopper

**1–8 quarts MBI-206 EP per acre (Suppression)**

Pacific spider mite, Willamette Spider Mite, twospotted spider mite, mealybugs, whiteflies, thrips,

Spotted wing drosophila – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

**Herbs, Spices and Mints (outdoor or enclosed, including those grown as bedding plants)**

**Angelica, balm, basil, borage, burnet, chamomile, catnip, chervil, chive, clary, coriander, costmary, cilantro, curry, dillweed, horehound, hyssop, lavender, lemongrass, lovage, marjoram, nasturtium,**

parsley (dried), peppermint, rosemary, sage, savory (summer and winter), sweet bay, tansy, tarragon, thyme, wintergreen, woodruff and wormwood

**1–8 quarts MBI-206 EP per acre**

Loopers, saltmarsh caterpillar and armyworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies and mites

---

**Hops and Dried Cones**

**1–8 quarts MBI-206 EP per acre**

Armyworms, loopers

**1–8 quarts MBI-206 EP per acre (Suppression)**

Hops, aphid, thrips, whiteflies and mites

---

**Leafy Vegetables and Leaves of Root and Tuber and Legume Vegetables**

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

**1–8 quarts MBI-206 EP per acre**

Cabbage looper, diamondback moth, armyworms

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, whiteflies, thrips, psyllids, mites,

Stink bugs – tank mix with a contact insecticide for improved control.

---

**Oil Crops**

Canola, Castor, Flax, Jojoba, Hemp, Rapeseed, Safflower, Sesame, Sunflower (including sunflower grown for seed)

**1–8 quarts MBI-206 EP per acre**

Armyworm, diamondback moth, looper, saltmarsh caterpillar, *Heliothis*, headworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies, mites

---

**Pineapple**

**1–8 quarts MBI-206 EP per acre**

Gummosos-Batracheda Comosae (Hodges), Thecla-Thecla Basilides (Geyr)

---

**Pome Fruit**

Apples, Crabapple, Loquat, Mayhaw, Pears and Quince

**1–8 quarts MBI-206 EP per acre**

Pear psyllid, San Jose scale

**1–8 quarts MBI-206 EP per acre (Suppression)**

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part

of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs and plum curculio. Tank-mix with a contact insecticide for improved control.

---

## **Pomegranate**

### **1–8 quarts MBI-206 EP per acre**

Walnut caterpillar, cankerworm, gypsy moth, variegated leafroller, redbanded leafroller, tufted apple budmoth, fruittree leafroller, oriental fruit moth, cutworm, filbert leafroller, oblique banded leafroller, codling moth, armyworm and twig borer.

### **1–8 quarts MBI-206 EP per acre (Suppression)**

European red mite, twospotted red mite, Pacific spider mite, McDaniel spider mite

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs – tank mix with a contact insecticide for improved control

---

## **Potatoes and Tuberous and Corm Vegetables**

**Artichoke, Cassava, Chayote Root, Chinese Artichoke, Garden Beet, Ginger, Jerusalem Artichoke, Potatoes, Sugar Beet, Sweet Potatoes, Turmeric and Yams**

### **1–8 quarts MBI-206 EP per acre**

Armyworms, artichoke plume moth, European corn borer, loopers, aphids, potato aphid, whiteflies, Psyllids

**Apply 1–8 quarts MBI-206 EP per acre for chemigation applications.**

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Potato leafhopper

Stink bugs – tank mix with a contact insecticide for improved control.

1.8 – 19.6 fluid ounces per 1000 foot row

For low to medium infestations of soil insects, use an at-planting in-furrow or T-band application in 10-20 gallons of water per acre. When high pest infestations are anticipated or encountered, other effective soil treatments may be needed.

Cutworms, root and seed maggots, seed corn beetle, wireworms

---

## **Root Vegetables**

**Black Salsify, Carrot, Celeriac, Chicory, Edible Burdock, Ginseng, Horseradish, Parsnip, Radish, Oriental Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Turnip, Turnip-rooted Chervil, and Turnip Rooted Parsley**

### **1–8 quarts MBI-206 EP per acre**

Armyworms, European corn borer, loopers

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies, mites

---

**Shade and Ornamental Trees and Forests****1–8 quarts MBI-206 EP per acre**

Gypsy moth, elm spanworm, tent caterpillar, California oakworm, pine butterfly, spruce budworm, saddle prominent caterpillar, Douglas fir tussock moth, western tussock moth, fruittree leafroller, blackheaded budworm, mimosa webworm, jack pine budworm, saddleback caterpillar, greenstriped mapleworm, hemlock looper

**1–8 quarts MBI-206 EP per acre (Suppression)**

Mites, aphids, whiteflies, lace bugs,

Stink bugs – tank mix with a contact insecticide for improved control.

---

**Soybean****1–8 quarts MBI-206 EP per acre**

Loopers, soybean looper, cabbage looper, green cloverworm, veletbean caterpillar, armyworm, podworm, corn earworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, soybean aphid, potato leafhopper, leafhoppers, whiteflies, mites, thrips

Kudzu bug – tank mix with a contact insecticide for improved control.

1.8 – 19.6 fluid ounces per 1000 foot row

For low to medium infestations of soil insects, use an at-planting in-furrow or T-band application in 10-20 gallons of water per acre. When high pest infestations are anticipated or encountered, other effective soil treatments may be needed.

Cutworms, root and seed maggots, seed corn beetle, wireworms

---

**Stone Fruits****Apricots, Cherry, Nectarine, Peach, Plum, Prune****1–8 quarts MBI-206 EP per acre**

Green fruitworm, leafrollers (including oblique-banded, fruit tree, pandemic, redbanded, variegated), oriental fruit moth, redhumped caterpillar, tent caterpillar, peach twig borer,

Application timing: optimal timing for peach twig borer and leafrollers can vary between species and geographic locations. Monitor moth flights with pheromone traps and scout regularly to determine larval populations. Use a 7–10-day re-treatment schedule to maintain control if the crop is growing rapidly or if there is heavy pest pressure. Use a 3–4-day re-treatment schedule at flowering.

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, mealybugs, thrips, whiteflies, mites,

Stink bugs and plum curculio – tank mix with a contact insecticide for improved control.

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

## **Strawberry**

### **1–8 quarts MBI-206 EP per acre**

Armyworms, leafrollers, thrips

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, whiteflies, mites,

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs, plant bugs and Lygus- tank-mix with a contact insecticide for improved control.

---

## **Tobacco**

### **1–8 quarts MBI-206 EP per acre**

Hornworm, tobacco budworm, looper

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies, mites

---

## **Tree Farms and Plantations**

### **Conifers, Including Christmas Trees and Deciduous Trees**

### **1–8 quarts MBI-206 EP per acre**

Bagworm, fall webworm, gypsy moth, hemlock looper, jackpine budworm, pine tip moth, redhumped caterpillar, spruce budworm, tent caterpillar, tussock moths

---

## **Tree Fruits**

Acerola, Atemoya, Avocado, Biriba, Black Sapote, Canistel, Cherimoya, Custard Apple, Feijoa, Guava, Ilima, Jaboticaba, Kiwi, Longan, Lychee, Mamey Sapote, Mango, Papaya, Passionfruit, Pulasan, Rambutan, Sapodilla, Soursop, Spanish Lime, Star Apple, Starfruit, Sugar Apple, Ti Palm Leaves, Wax Jambu (Wax Apple), White Sapote

### **1–8 quarts MBI-206 EP per acre**

Avocado leafroller, citrus peelminer, cutworms, fruit tree leafroller, omnivorous leafroller, orange tortrix, western tussock moth

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies, mites

## **Tree Nuts and Pistachios**

**Almond, Cashew, Chestnut, Filbert (Hazelnut), Macadamia, Pecan, Pistachio, Walnut**

### **1–8 quarts MBI-206 EP per acre**

Fall webworm, filbert worm, hickory shuckworm, navel orange worm, oblique banded leafroller, peach twig borer, pecan nut casebearer, redhumped caterpillar

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, mealybugs, whiteflies, codling moth

---

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Use up product within 6 months of purchase.

**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:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

ACRC Logo Placeholder

Marrone Bio Innovations is a member of the Ag Container Recycling Council.

Visit <http://www.acrecycle.org/contact> for information on how to arrange pick-up of this empty pesticide container.

## Marrone Bio Innovations WARRANTY

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



# Sublabel B: Greenhouse, Nursery, Turf & Professional Landscape Use

## MBI-206 EP (Alternate Names: VENERATE, VENERATE XC, VENERATE PTO) BIOLOGICAL INSECTICIDE



(Can Be Used in Organic Production) (For Organic Production)(For Organic Lawn Care)(OMRI Placeholder)

**Active Ingredient:** Heat-killed *Burkholderia spp.* strain A396 cells and spent fermentation media .....94.46%  
**Other ingredients:** .....5.54%  
**Total:** .....100.00%

\*Contains not less than 1,500 Beet Armyworm Killing Units (BAWKU)/mg. Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

### KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOT LINE NUMBER</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

**EPA Reg. No.:** 84059-14  
**Net Contents:** XX  
**(Batch)(Lot) No:** XXXX

**EPA Est. No.:** XXXXX-XX-XXX

**Manufactured by:** Marrone Bio Innovations, Inc.  
1540 Drew Ave.  
Davis, CA 95618 USA  
1-877-664-4476; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); [info@marronebio.com](mailto:info@marronebio.com)

US Patents No. XXXXX  
XXXX® is a trademark of Marrone Bio Innovations, Inc.  
Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear goggles or safety glasses. 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 use.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear. Mixers / loaders and applicators not in enclosed cabs or aircraft must wear a dust / mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning and maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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 highwater mark. Do not contaminate water when disposing of equipment washwaters or rinsate. See the Directions for Use section of this label for application instructions that minimize risk to bees and other beneficial insects, *including those used in Integrated Pest Management (IPM) programs or organic agriculture.*

## DIRECTIONS FOR USE

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

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

## PRODUCT INFORMATION

MBI-206 EP is a biological insecticide containing killed cells of *Burkholderia spp.* strain A396 and spent fermentation media, for use on agricultural crops against the pests listed in the Directions for Use section. MBI-206 EP controls insect pests by enzymatic degradation of exoskeletal structures and interference with the molting process leading to mortality through contact and/or ingestion. MBI-206 EP controls or suppresses many foliar feeding pests including caterpillars and foliage feeding coleopteran and against many soft-bodied insects such as, aphids, whiteflies and plant sucking mites infesting labeled crops and plants. For insect control, the concentrate of MBI-206 EP must be mixed with water and applied as a foliar spray with ground or aerial equipment equipped for conventional insecticide spraying.

## GENERAL USE INSTRUCTIONS – FOR INSECT CONTROL

MBI-206 EP is an insecticide for use against listed insects. Close scouting and early attention to infestations is highly recommended. Proper timing of application targeting newly hatched larvae is important for optimal results.

Thorough coverage of infested plant parts is necessary for effective control. MBI-206 EP does not have systemic activity.

Under heavy pest populations, use the higher label rates, shorten the spray interval, increase the spray volume to improve coverage, and/or apply in tank mixture with another product that has activity on the target pest.

Repeat applications at an interval sufficient to maintain control, usually 3-10 days depending upon plant growth rate, insect and mite activity, and other factors. If attempting to control an insect population with a single application, make the treatment when egg hatch is essentially complete but before economic damage occurs.

The use of adjuvants with MBI-206 is not recommended, except to improve control of insect pests in situations where achieving uniform plant coverage is difficult such as closed canopy, dense foliage and penetration into waxy leaf surfaces.

#### **Bees and beneficial insects:**

- To minimize potential exposure to bees and other pollinating insects, do not apply while bees are foraging.
- Do not allow product to drift to blooming crops or weeds if bees are foraging.

Minimize spray drift away from the target area to reduce effects to other non-target insects.

MBI-206 EP has been evaluated for toxicity to non-target insects in a variety of bioassays and on a variety of crops under various normal growing conditions. However, testing all beneficial insects, in all situations, mixtures and combinations, is not feasible. Prior to treating an entire field or crop where the release of beneficial insects serve as part of an Integrated Pest Management (IPM) program, consult with an extension specialist, a pest control advisor (PCA) or with the product manufacturer.

MBI-206 EP has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

#### **Mixing directions**

**Important** – Do not add MBI-206 EP to the mix tank before introducing the desired amount of water. Add water to the mix tank. Start the mechanical or hydraulic agitation to provide moderate circulation before adding MBI-206 EP. Add the desired volume of MBI-206 EP to the mix tank and continue circulation. Maintain circulation while loading and spraying. Do not mix more MBI-206 EP than can be used in 24 hours. Use a strainer no finer than 50 mesh in conventional spray systems.

#### **Tank mixing**

Do not combine MBI-206 EP in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, or non-injurious under your use conditions.

To ensure compatibility of tank-mix combinations they must be evaluated prior to use. To determine the physical compatibility of this product with other products use a jar test. Using a quart jar, add the proportionate amounts of the products to one quart of water with agitation. Add dry formulations first,

then flowables, then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

## **GROUND APPLICATION**

Apply MBI-206 EP in ground equipment with quantities of water sufficient to provide thorough coverage of infested plant parts. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage. For turf applications, apply MBI-206 EP in a minimum of 1.5 gallons of water per 1000 square feet (65 gallons water per acre). For foliar applications using broadcast application equipment apply MBI-206 EP in a minimum of 30 gallons of water per acre. For dilute applications to bedding plants, trees and shrubs, apply MBI-206 EP at a dilution of 2 to 8 quarts per 100 gallons of water. Use of a quality surfactant will aid performance. Do not use carrier volumes and/or adjuvants that create spray runoff or drip-accumulation at the base of the commercial commodity.

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

Avoiding spray drift is the responsibility of the applicator.

## **CHEMIGATION USE – DIRECTIONS FOR INSECT CONTROL**

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation systems. Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system.

### **Spray preparation**

First prepare a suspension of MBI-206 EP in a mix tank. Fill tank  $\frac{1}{2}$  to  $\frac{3}{4}$  the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of MBI-206 EP, and then the remaining volume of water. Then set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of MBI-206 EP into the irrigation water line so as to deliver the desired rate per acre. Inject the suspension of MBI-206 EP with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Any questions on calibration should be directed to your State Extension Service Specialists, to equipment manufacturers or other experts.

Do not combine MBI-206 EP with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. MBI-206 EP has not been fully evaluated for compatibility with all adjuvants or surfactants. It is advisable to conduct a spray compatibility test if a mixture with adjuvants or surfactants is planned.

### **General Requirements**

- 1) Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.
- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### **Specific Requirements for Chemigation Systems Connected to Public Water Systems**

- 1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4) The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Specific Requirements for Sprinkler Chemigation**

- 1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3) The pesticide injection pipeline must also contain a functional, normally closed, 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.

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

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Utilize agitation to keep solution in suspension.

### **SHAKE WELL BEFORE USE**

### **FOR USE ON THE FOLLOWING SITES FOR CONTROL OF INSECTS AND MITES**

FOR USE ON THE FOLLOWING CROPS FOR CONTROL OR SUPPRESSION OF INSECTS AND MITES  
[Pre-harvest Interval (PHI) = 0 days]

---

#### **Asparagus**

##### **1–8 quarts MBI-206 EP per acre**

Armyworms

##### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids,

Stink bugs- tank mix with a contact insecticide for improved control.

---

#### **Bulbs**

##### **Leek, Garlic and onion (bulb and green)**

##### **1–8 quarts MBI-206 EP per acre**

Loopers, omnivorous leafrollers, hornworm, imported cabbageworm, diamondback moth, green cloverworm, webworm, saltmarsh caterpillar, armyworms, cutworm, cross-striped cabbageworm, Heliothis

##### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips

---

#### **Bushberries**

Blueberry, Currant, Gooseberry, Huckleberry, Elderberry, Juneberry, Ligonberry, Salal

##### **1–8 quarts MBI-206 EP per acre**

Armyworms, cherry fruitworm, cranberry fruitworm, fireworms, leafrollers, loopers

##### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, blueberry blossom weevil

Blueberry maggot, spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.



Stink bugs - tank-mix with a contact insecticide for improved control.

---

### **Caneberries**

**Blackberry, Loganberry, Red and Black Raspberry, and Cultivars and/or hybrids of these**

**1–8 quarts MBI-206 EP per acre**

Armyworms, green fruitworm, leafrollers, loopers, western raspberry fruitworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

### **Citrus Grapefruit, Lemons, Limes, Oranges, Tangerines**

**1–8 quarts MBI-206 EP per acre**

Fruitree leafroller, orangedog, citrus cutworm, citrus leafminer

**1–8 quarts MBI-206 EP per acre**

Citrus rust mite, Asian citrus psyllid.

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, Florida red scale, twospotted spider mite, Texas citrus mite, citrus red mite, six-spotted mite, citrus thrips, mealybugs

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs - tank-mix with a contact insecticide for improved control.

---

### **Cole Crops**

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

**1–8 quarts MBI-206 EP per acre**

Diamondback moth, cabbage looper, imported cabbageworm, cabbage webworm, armyworms

**1–8 quarts MBI-206 EP per acre (Suppression)**

Whiteflies, thrips, aphids, leafhoppers, plant bugs, mites, billbugs, Swede midge

Stink bugs – for improved control tank mix with a contact insecticide

---

### **Cucurbit Vegetables**

---



**Cucumber, edible gourds, muskmelon (cantaloupe, muskmelon, etc.), pumpkin, watermelon, winter and summer squash**

**1–8 quarts MBI-206 EP per acre**

Armyworm, cabbage looper, melonworm, pickleworm, rindworm complex

**1–8 quarts MBI-206 EP per acre (Suppression)**

Silverleaf whitefly, whiteflies, aphids, thrips, mites

Stink bugs – for improved control tank mix with a contact insecticide

---

**Fruiting Vegetables**

**Tomato, Tomatillo, Pepper, Ground Cherry, Pepino, Okra and Eggplant**

**1–8 quarts MBI-206 EP per acre**

Loopers, hornworm, tomato fruitworm, variegated cutworm, saltmarsh caterpillar, armyworms, tomato pinworm, European corn borer, pepper weevil, thrips

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, mites, whiteflies, psyllids, thrips,

Spotted wing drosophila – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs, pepper weevil, plant bugs, Lygus - tank-mix with a contact insecticide for improved control. Use pheromone traps to time applications for control of pepper weevil.

---

**Herbs, Spices and Mints (outdoor or enclosed, including those grown as bedding plants)**

**Angelica, balm, basil, borage, burnet, chamomile, catnip, chervil, chive, clary, coriander, costmary, cilantro, curry, dillweed, horehound, hyssop, lavender, lemongrass, lovage, marjoram, nasturtium, parsley (dried), peppermint, rosemary, sage, savory (summer and winter), sweet bay, tansy, tarragon, thyme, wintergreen, woodruff and wormwood**

**1–8 quarts MBI-206 EP per acre**

Loopers, saltmarsh caterpillar and armyworm

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies and mites

---

**Leafy Vegetables and Leaves of Root and Tuber and Legume Vegetables**

**Arugula, Beets, Celery, Chervil, Cilantro, Corn Salad, Cress, Dandelion, Dock, Edible Chrysanthemum, Endive, Fennel, Garden Peas, Head Lettuce, Leaf Lettuce, Parsley, Purslane, Radicchio, Rhubarb, Spinach, Swiss Chard, Turnip Greens and Watercress**

**1–8 quarts MBI-206 EP per acre**

Cabbage looper, diamondback moth, armyworms

**1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, whiteflies, thrips, psyllids, mites

Stink bugs – tank mix with a contact insecticide for improved control

---

**Pome Fruit**

## **Apples, Crabapple, Loquat, Mayhaw, Pears and Quince**

### **1–8 quarts MBI-206 EP per acre**

Pear psyllid, San Jose scale

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs and plum curculio. Tank-mix with a contact insecticide for improved control

---

## **Root Vegetables**

**Black Salsify, Carrot, Celeriac, Chicory, Edible Burdock, Ginseng, Horseradish, Parsnip, Radish, Oriental Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Turnip, Turnip-rooted Chervil, and Turnip Rooted Parsley**

### **1–8 quarts MBI-206 EP per acre**

Armyworms, European corn borer, loopers

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies, mites

---

## **Stone Fruits**

**Apricots, Cherry, Nectarine, Peach, Plum, Prune**

### **1–8 quarts MBI-206 EP per acre**

Green fruitworm, leafrollers (including oblique-banded, fruit tree, pandemic, redbanded, variegated), oriental fruit moth, redhumped caterpillar, tent caterpillar, peach twig borer,

Application timing: optimal timing for peach twig borer and leafrollers can vary between species and geographic locations. Monitor moth flights with pheromone traps and scout regularly to determine larval populations. Use a 7–10-day re-treatment schedule to maintain control if the crop is growing rapidly or if there is heavy pest pressure. Use a 3–4-day re-treatment schedule at flowering.

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, mealybugs, thrips, whiteflies, mites

Stink bugs and plum curculio – tank mix with a contact insecticide for improved control.

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

---

## **Strawberry**

### **1–8 quarts MBI-206 EP per acre**

Armyworms, leafrollers, thrips

### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, whiteflies, mites,

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs, plant bugs and Lygus- tank-mix with a contact insecticide for improved control.

---

## **Tree Farms and Plantations**

### **Conifers, Including Christmas Trees and Deciduous Trees**

#### **1–8 quarts MBI-206 EP per acre**

Bagworm, fall webworm, gypsy moth, hemlock looper, jackpine budworm, pine tip moth, redhumped caterpillar, spruce budworm, tent caterpillar, tussock moths

---

## **Tree Fruits**

Acerola, Atemoya, Avocado, Biriba, Black Sapote, Canistel, Cherimoya, Custard Apple, Feijoa, Guava, Ilima, Jaboticaba, Kiwi, Longan, Lychee, Mamey Sapote, Mango, Papaya, Passionfruit, Pulasan, Rambutan, Sapodilla, Soursop, Spanish Lime, Star Apple, Starfruit, Sugar Apple, Ti Palm Leaves, Wax Jambu (Wax Apple), White Sapote

#### **1–8 quarts MBI-206 EP per acre**

Avocado leafroller, citrus peelminer, cutworms, fruit tree leafroller, omnivorous leafroller, orange tortrix, western tussock moth

#### **1–8 quarts MBI-206 EP per acre (Suppression)**

Aphids, thrips, whiteflies, mites

Spotted wing drosophila and fruit flies – applications should begin as soon as adult flies are active and continue until adult activity is no longer present. Use of MBI-206 EP for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, applications should be made at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs, plant bugs and Lygus- tank-mix with a contact insecticide for improved control.

---

## **Tree Nuts and Pistachios**

### **Almond, Cashew, Chestnut, Filbert (Hazelnut), Macadamia, Pecan, Pistachio, Walnut**

#### **1–8 quarts MBI-206 EP per acre**

Fall webworm, filbert worm, hickory shuckworm, navel orange worm, oblique banded leafroller, peach twig borer, pecan nut casebearer, redhumped caterpillar

#### **1–8 quarts MBI-206 EP per acre (Suppression)**

Codling moth, aphids, mealybugs, whiteflies,

---

## **Ornamentals**

### **Including: Flowering plants, foliage plants, broadleaves, shrubs, trees, conifers**

#### **1–8 quarts MBI-206 EP per acre**

Bagworm, fall webworm, gypsy moth, elm spanworm, tent caterpillar, California oakworm, pine butterfly, spruce budworm, saddle prominent caterpillar, Douglas fir tussock moth, western tussock moth, fruittree leafroller,

blackheaded budworm, mimosa webworm, jack pine budworm, saddleback caterpillar, greenstriped mapleworm, hemlock looper, pine tip moth, redhumped caterpillar, spruce budworm

**1–8 quarts MBI-206 EP per acre**

Mites, aphids, whiteflies, lace bugs

Stink bugs, black vine weevil – suppression. Tank mix with a contact insecticide for improved stink bug control.

---

**Turfgrass and Ornamental grasses**

**1–8 quarts MBI-206 EP per acre**

Armyworms, cutworms, sod webworms, bluegrass billbug

**1–8 quarts MBI-206 EP per acre**

Chinch bug, leafhoppers, annual bluegrass weevil - suppression

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Use up product within 6 months of purchase.

**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:** Non-refillable 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  $\frac{1}{4}$  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. Do not burn unless allowed by state and local ordinances.

ACRC Logo Placeholder

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.

## Marrone Bio Innovations WARRANTY

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

## Sublabel C: Nematicide Use

# MBI-206 EP

### (BIOLOGICAL NEMATICIDE)



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

**Active Ingredient:** Heat-killed *Burkholderia* spp. strain A396 cells and spent fermentation media .....94.46%  
**Other ingredients:** .....5.54%  
**Total:** .....100.00%

\*Contains not less than 1,500 Beet Armyworm Killing Units (BAWKU)/mg. Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

### KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

**EPA Reg. No.:** 84059-14

**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; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); [info@marronebio.com](mailto:info@marronebio.com)

US Patents No. XXXXX

XXXX® is a registered trademark of Marrone Bio Innovations, Inc.

Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear goggles or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear. Mixers / loaders and applicators must wear a dust / mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning and maintaining PPE. If there are 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 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

**USER SAFETY RECOMMENDATIONS:** Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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. See the Directions for Use section of this label for application instructions that minimize risk to bees and other beneficial insects, *including those used in Integrated Pest Management (IPM) programs or organic agriculture.*

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



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

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:

- Protective eyewear
- Coveralls
- Chemical resistant gloves (made from any waterproof material)
- Shoes plus socks

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

## PRODUCT INFORMATION

MBI-206 EP is a biological insecticide and nematocide containing killed cells of *Burkholderia spp.* strain A396 and spent fermentation media, for use on agricultural crops against the pests listed in the Directions for Use section. MBI-206 EP can be used in either the field or greenhouse for the control of any labeled pest.

Bees and beneficial insects:

- To minimize potential exposure to bees and other pollinating insects, do not apply while bees are foraging.
- Do not allow product to drift to blooming crops or weeds if bees are foraging.

Minimize spray drift away from the target area to reduce effects to other non-target insects.

MBI-206 has been evaluated for toxicity to non-target insects in a variety of bioassays and on a variety of crops under various normal growing conditions. However, testing all beneficial insects, in all situations, mixtures and combinations, is not feasible. Prior to treating entire crop where the release of beneficial insects serve as part of an Integrated Pest Management (IPM) program, consult with an extension specialist, a pest control advisor (PCA) or with the product manufacturer.

MBI-206 has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

## SOIL TREATMENT USE DIRECTIONS

### DO NOT APPLY THIS PRODUCT BY AERIAL APPLICATION.

MBI-206 EP can be applied by soil drench, broadcast, and chemigation (drip, trickle or sprinkler irrigation) and as an in-furrow spray, T-band or soil injection to protect against certain soil-borne nematodes.

In general, MBI-206 EP can be applied by the following methods, unless specified differently in the SELECTED CROPS section:

**Soil Drench Applications:** Apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone. Nematode control treatments can occur prior to planting, and at or near planting or transplanting as soil drench applications.

**Broadcast Applications:** MBI-206 EP can be applied to bare soil alone or with most types of pesticides and nutrients prior to planting, at planting, at transplant, and in-season. Apply with a minimum of 30 gallons of water and follow with a minimum of 0.5 inches of irrigation water or natural rainfall within 1-2 days to allow the material to move through the soil profile. Use a jar test to confirm physical compatibility prior to application.

**Shanked-In and Injected Applications:** MBI-206 EP can be shanked-in or injected into the soil alone, or with most types of pesticides and nutrients prior to planting, and at planting. Use a jar test to confirm physical compatibility prior to application.

**In-Furrow and T-Band applications:** At planting, apply MBI-206 EP as an in-furrow spray or as a 5-7 inch band (T-band) over an open seed furrow at the rate of 1-8 qt/A (1.8 – 19.6 fluid ounces per 1000 feet of row based on per acre rate and row spacing according to the chart below). Apply MBI-206 EP in a minimum of 5 gallons of water per acre, with the spray directed over the seed furrow just before the seeds are covered by soil. MBI-206 EP applied as a T-Band should be lightly incorporated into the top 1 inch of soil by drag chains or tines.

#### In-furrow and T-band Application Rates

Rate	In-Furrow and T-band Application Rates Product per 1000 ft. row.					
	30" Rows	32" Rows	34" Rows	36" Rows	38" Rows	40" Rows
1–8 quarts MBI-206 EP per acre	1.8-14.7 fluid ounces	2.0-15.7 fluid ounces	2.1-16.7 fluid ounces	2.2-17.6 fluid ounces	2.3-18.6 fluid ounces	2.4-19.6 fluid ounces

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.

**Chemigation:** Prior to, at or shortly after planting or transplanting, and in season: apply MBI-206 EP at 1 – 8 quarts per acre according to the directions in the CHEMIGATION USE DIRECTION section of this label.

### CHEMIGATION USE DIRECTIONS

#### Spray preparation

First, prepare a suspension of MBI-206 EP in a mix tank. Fill tank with  $\frac{3}{4}$  of the amount of water for the area to be treated. Start mechanical or hydraulic agitation. Add the required amount of MBI-206 EP, and then the remaining volume of water. Then, set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of MBI-206 EP into the irrigation water line, delivering the desired rate of MBI-206 EP per acre. Inject the suspension of MBI-206 EP with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. MBI-206 EP is to be metered continuously for the duration of the water application. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not combine MBI-206 EP with other pesticides, surfactants, adjuvants, or fertilizers for application through chemigation equipment unless prior experience has shown the combination to be physically compatible, effective and non-injurious under your conditions of use.

#### General Requirements -

- 1) Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, micro-emitter, or hand move, 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.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### **Specific Requirements for Chemigation Systems Connected to Public Water Systems -**

- 1) Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ), or the functional equivalent in the water supply line, upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank, of at least twice the inside diameter of the fill pipe.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve, to prevent the flow of fluid back toward the injection pump.
- 4) The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve, located on the intake side of the injection pump and connected to the system interlock, to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides, and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Specific Requirements for Sprinkler Chemigation -**

- 1) The system must contain a functional check valve, vacuum relief valve, and low-pressure drain, appropriately located on the irrigation pipeline, to prevent water source contamination from backflow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve, to prevent the flow of fluid back toward the injection pump.
- 3) The pesticide injection pipeline must also contain a functional, normally closed, 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.

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

- 1) The system must contain a functional check valve, vacuum relief valve, and low-pressure drain, appropriately located on the irrigation pipeline, to prevent water source contamination from backflow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve, to prevent the flow of fluid back toward the injection pump.

- 3) The pesticide injection pipeline must also contain a functional, normally closed, 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.

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

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use, and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Utilize agitation to keep solution in suspension.

#### **Application Instructions for Drip Chemigation**

- 1) Check to be sure that the system provides a uniform waterflow.
- 2) Irrigate crop with sufficient water to wet the root zone. Then, begin flow of the solution containing product solution from the chemical tank for a period to uniformly distribute the material. Discontinue flow of the MBI-206 EP mixture and let the system continue to run only as necessary to purge the line with fresh water. Let the MBI-206 EP solution remain in the root zone of the crop.

### **SEED TREATMENT APPLICATION**

MBI-206 EP can be applied as a seed dressing at plant or in commercial seed treatments for suppression of nematode damage. Apply MBI-206 EP as a water-based slurry with other registered seed treatment insecticides, nematicides and fungicides through standard slurry- or mist-type commercial seed treatment equipment.

**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-206 EP mixtures. For seed treatment, apply 8 ounces of MBI-206 EP per 100 pounds of seed.

MBI-206 EP **alone:** Add ½ of the required amount of water to the mix tank. With the agitator running, add the MBI-206 EP to the mix tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the MBI-206 EP has completely dispersed into the mix water. Maintain agitation until all the mixture has been applied.

MBI-206 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. 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-206 EP in tank-mixtures, all products in water soluble packaging should be added to the tank before any other tank-mix partner, including MBI-206 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-206 EP in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations that 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 that prohibits such mixing.

**For Pre-plant Seed Treatment:** Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seeds beyond planting time.

**For Commercial Seed Treatment:** The active ingredient Heat-killed *Burkholderia spp.* Strain A396 cells and spent fermentation media is exempt from the requirement of a tolerance for residues in and on all food commodities. Commercial seed treaters are not required to add a dye to this product before treating seed. Treated seed can be used for or mixed with food or animal feed, or processed for oil.

## **SHAKE WELL BEFORE USE**

**FOR USE ON THE FOLLOWING CROPS FOR CONTROL OF THE FOLLOWING NEMATODES:** Root-knot (*Meloidogyne spp.*), lesion (*Pratylenchus spp.*), sting (*Belonolaimus spp.*), stunt (*Tylenchorhynchus spp.*), ring (*Bursaphelenchus spp.*), soybean cyst nematode (*Heterodera glycines*), and reniform (*Rotylenchulus spp.*) nematodes

**FOR USE ON THE FOLLOWING CROPS FOR CONTROL OF THE FOLLOWING SOIL BORNE INSECTS:** Cutworms, root and seed maggots, seed corn beetle, wireworms, southern, western, and northern corn rootworm larvae.

**Pre-harvest Interval (PHI) = 0 days**

---

### **Brassica (Cole) Leafy Vegetables**

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

#### **1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

### **Bulb Vegetables**

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

##### **1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

### **Cereal Grains**

**Barley, Buckwheat, Grain Amaranth, Milo, Oats, Pearl Millet, Proso Millet, Rye, Sorghum, Triticale, Wheat**

#### **1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

### **Corn (Field Corn, Sweet Corn, Popcorn and Corn Grown for Seed)**

#### **1.8 – 19.6 fluid ounces MBI-206 EP per 1000 foot row**

For control of low to medium infestation levels of nematodes, apply MBI-206 EP as an in furrow or T-band spray in a minimum of 5 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS. When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

#### **Seed Treatment for Corn**

For suppression of plant-parasitic nematodes, apply 8 ounces of MBI-206 EP per 100 pounds of seed in accordance with the instructions presented in the SEED TREATMENT USE DIRECTIONS.

---

### **Cotton**

#### **1.8 – 19.6 fluid ounces MBI-206 EP per 1000 foot row**

For control of low to medium infestation levels of nematodes, apply MBI-206 EP as an in furrow or T-band spray in a minimum of 5 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS. When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

#### **Seed treatment for Cotton**

For suppression of plant-parasitic nematodes, apply 8 ounces of MBI-206 EP per 100 pounds of seed in accordance with the instructions presented in the SEED TREATMENT USE DIRECTIONS.

---

### **Cucurbit Vegetables**

**Cucumber, Edible Gourds, Muskmelon, Cantaloupe, Pumpkin, Watermelon, Winter and Summer Squash, and Zucchini**

#### **1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

---



When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

## **Fruiting Vegetables**

### **Tomato, Tomatillo, Pepper, Groundcherry, Pepino, Okra and Eggplant**

#### **1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

## **Leafy Vegetables**

### **Arugula, Celery, Corn Salad, Cress, Dandelion, Dock, Edible Chrysanthemum, Endive, Fennel, Head Lettuce, Leaf Lettuce, Parsley, Purslane, Radicchio, Rhubarb, Spinach and Swiss Chard**

#### **1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

## **Peanuts**

### **1.8 – 19.6 fluid ounces MBI-206 EP per 1000 foot row**

For control of low to medium infestation levels of nematodes, apply MBI-206 EP as an in furrow or T-band spray in a minimum of 5 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS. When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

## **Soybean**

### **1.8 – 19.6 fluid ounces MBI-206 EP per 1000 foot row**

For control of low to medium infestation levels of nematodes, apply MBI-206 EP as an in furrow or T-band spray a minimum of 5 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS. When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

### **Seed treatment for Soybean**

For suppression of plant-parasitic nematodes, apply 8 ounces of MBI-206 EP per 100 pounds of seed in accordance with the instructions presented in the SEED TREATMENT USE DIRECTIONS.

---

## **Root and Tuber Vegetables**

### **Artichoke, Black Salsify, Carrot, Cassava, Celeriac, Chayote Root, Chicory, Chinese Artichoke, Edible Burdock, Garden Beet, Ginger, Ginseng, Horseradish, Jerusalem Artichoke, Oriental Radish, Parsnip,**



**Potatoes, Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Sugar Beet, Sweet Potatoes, Tumeric, Turnip, Turnip-rooted Chervil, Turnip-rooted Parsley and Yams**

**1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

, apply at the rate of 1-8 quarts per acre.

---

**Strawberry**

**1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

**Tropical Fruits: Banana, Mangos, Papayas, Pineapple, Plantains**

**1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

---

**Tobacco**

**1–8 quarts MBI-206 EP per acre**

For applications using chemigation, apply at the rate of 1 – 8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For broadcast applications, apply at the rate of 1-8 quarts per acre prior to planting, at planting, at transplant, and in-season. For applications as a soil drench, apply MBI-206 EP at a rate of 1–8 quarts per acre in sufficient water to thoroughly soak the growing media and root zone prior to planting, and at or near planting or transplanting.

When very high pest infestation levels are anticipated or encountered, other effective soil treatments may be necessary.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Use up product within 6 months of purchase.

**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:** Non-refillable 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  $\frac{1}{4}$  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. Do not burn unless allowed by state and local ordinances.

ACRC Logo Placeholder

Marrone Bio Innovations is a member of the Ag Container Recycling Council.

Visit <http://www.acrecycle.org/contact> for information on how to arrange pick-up of this empty pesticide container.

## Marrone Bio Innovations WARRANTY

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

## Sublabel D: Home & Garden Use

# MBI-206 EP

## (Alternate Names: VENERATE, VENERATE XC, VENERATE PTO)

### BIOLOGICAL INSECTICIDE



(Can Be Used in Organic Gardening) (For Organic Gardening)(For Organic Lawn Care)(OMRI Placeholder)

**Active Ingredient:** Heat-killed *Burkholderia* spp. strain A396 and spent fermentation media .....94.46%  
**Other ingredients:** .....5.54%  
**Total:** .....100.00%

\*Contains not less than 1,500 Beet Armyworm Killing Units (BAWKU)/mg. Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

### KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOT LINE NUMBER</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

**EPA Reg. No.:** 84059-14

**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; [www.marronebioinnovations.com](http://www.marronebioinnovations.com); [info@marronebio.com](mailto:info@marronebio.com)

US Patents No. XXXXX

XXXX® is a trademark of Marrone Bio Innovations, Inc.

Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

## PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear goggles or safety glasses. 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 use.

**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. See the Directions for Use section of this label for application instructions that minimize risk to bees and other beneficial insects.

## DIRECTIONS FOR USE

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

### HOME AND GARDEN USE DIRECTIONS

MBI-206 EP is a biological insecticide containing killed cells of *Burkholderia spp.* strain A396 and spent fermentation media, for use on agricultural crops against the pests listed in the Directions for Use section. MBI-206 EP controls insect targets by enzymatic degradation of exoskeletal structures and interference with the molting process leading to mortality through contact and/or ingestion. MBI-206 EP controls or suppresses many foliar feeding pests including caterpillars and foliage feeding coleopteran and against many soft-bodied insects such as, aphids, whiteflies and plant sucking mites infesting labeled crops and plants. For insect control, the concentrate of MBI-206 EP must be mixed with water and applied as a foliar spray.

To minimize potential exposure to bees and other pollinating insects, do not apply while bees are foraging.

MBI-206 EP has been evaluated for toxicity to non-target insects in a variety of bioassays and on a variety of crops under various normal growing conditions. However, testing all beneficial insects, in all situations, mixtures and combinations, is not feasible. If you plan to release beneficial insects into your garden, consult with an extension specialist or with the product manufacturer prior to treating entire garden.

### DIRECTIONS FOR CONTROL OF FOLIAR PESTS

#### WHEN TO USE

For best results, apply MBI-206 EP if pest species are present but before populations are causing visible damage.

#### 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 or spray trigger bottles.

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

MBI-206 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**

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**

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**

2 tablespoons of MBI-206 EP per gallon of water

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

### **INSECTS CONTROLLED OR SUPPRESSED ON VEGETABLES, FRUITS, NUTS, ORNAMENTAL PLANTS, TREES, SHRUBS, FLOWERS, FOLIAGE AND TROPICAL PLANTS**

Alfalfa caterpillar  
Alfalfa webworm  
Adelgids  
Aphids  
Armyworms  
Cabbage looper  
Chinch bugs  
Codling moth  
Corn earworm  
Diamondback moth  
Fruit flies  
Hornworms  
Imported cabbageworm  
Lace bugs  
Leaf rollers  
Leafhoppers  
Light brown apple moth  
Loopers  
Mealybugs  
Mites  
Plant bugs  
Plum curculio

Psyllids  
Scales  
Sharpshooters  
Spittle bugs  
Stink bugs  
Tent caterpillars  
Thrips  
Tufted apple budworm  
Webworms  
Whiteflies

#### **DIRECTIONS FOR SUPPRESSION OF SOIL-BORNE PESTS (EXCLUDING TURF)**

For suppression of soil-borne pests, including seed maggots, wireworms, symphylans, cutworms, white grubs and plant-parasitic nematodes, apply MBI-206 EP as a soil drench directly into the seed furrow. Mix MBI-206 EP at rate of 5 tablespoons per gallon of water, and apply the mixture at the rate of 1 quart (32 fluid ounces) per 25 feet of row. For individual plants, such as tomatoes and peppers, apply the mixture as a soil drench at the rate of 4 fluid ounces per plant.

#### **DIRECTIONS FOR SUPPRESSION OF PESTS OF TURF**

Bluegrass billbug, annual bluegrass weevil, chinch bugs, armyworm, webworms, and cutworms

Mix MBI-206 EP at the rate of 5 tablespoons per gallon of water, and apply to turf with a pressurized sprayer at the rate of 1 gallon per 250 square feet of turf.

Plant parasitic nematodes

Mix 5 tablespoons MBI-206 EP per gallon of water, and apply at the rate of 1 gallon per 250 square feet of turf. For best control, thoroughly irrigate following application to moisten the top inch of soil. There should be no more than ½ inch of thatch present at the time of application. Under dry conditions where thatch is present, pre-watering is recommended prior to application.

For control of bluegrass billbug, annual bluegrass weevil, chinch bugs, armyworm, webworms, and cutworms it is not necessary to irrigate following application.

#### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. Use up product within 6 months of purchase.

**Pesticide Storage:** Store in a cool, dry place.

**Pesticide Disposal and Container Handling:** Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash and 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.

#### **Marrone Bio Innovations WARRANTY**

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

## Optional Label Claims

- Bioinsecticide
- Bionematicide