



# MAJESTENE<sup>®</sup>

## BIONEMATICIDE

**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.

EPA Reg. No. 84059-14

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

### FIRST AID

**IF IN EYES:**

- Hold eye open and rinse slowly and gently with water for 15–20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

 FOR ORGANIC PRODUCTION



**Manufactured by:**



1540 Drew Ave., Davis, CA 95618 USA  
1-877-664-4476  
info@marronebio.com

## 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 NIOSH-approved particulate respirator with any P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with a HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning and maintaining PPE. If 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 or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], 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.

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

• In New York State, application is prohibited within 100 feet of any surface water.

### 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

**MAJESTENE**<sup>®</sup> 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.

**MAJESTENE**<sup>®</sup> 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.

**MAJESTENE**<sup>®</sup> 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.

**MAJESTENE**<sup>®</sup> 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.

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

### SOIL TREATMENT USE DIRECTIONS

**MAJESTENE**<sup>®</sup> 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 and insects.

In general, **MAJESTENE**<sup>®</sup> can be applied by the following methods, unless specified differently in the SELECTED CROPS section:

**Soil Drench Applications:** Apply **MAJESTENE**<sup>®</sup> 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:** **MAJESTENE**<sup>®</sup> 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:** **MAJESTENE**<sup>®</sup> 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 **MAJESTENE**® as an in-furrow spray or as a 5-7 inch band (T-band) over an open seed furrow at the rate of 4-8 qt/A according to the In-furrow and T-Band Application Rates table below. Apply **MAJESTENE**® in a minimum of 3 gallons of water per acre, with the spray directed over the seed furrow just before the seeds are covered by soil. **MAJESTENE**® 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.							
	7.5" Rows	15" Rows	30" Rows	32" Rows	34" Rows	36" Rows	38" Rows	40" Rows
4-8 quarts <b>MAJESTENE</b> ® per acre	1.83-3.7 fluid ounces	3.7-7.3 fluid ounces	7.3-14.7 fluid ounces	7.85-15.7 fluid ounces	8.35-16.7 fluid ounces	8.80-17.6 fluid ounces	9.30-18.6 fluid ounces	9.80-19.6 fluid ounces

7.5" = 69,697 row ft./acre, 15" = 34,848 row ft./acre, 30" = 17,424 row ft./acre, 32" = 16,315 row ft./acre, 34" = 15,374 row ft./acre, 36" = 14,520 row ft./acre, 38" = 13,754 row ft./acre, 40" = 13,068 row ft./acre.

**Chemigation:** Prior to, at or shortly after planting or transplanting, and in season: apply **MAJESTENE**® at the rate specified in the Crop Use section according to the directions in the CHEMIGATION USE DIRECTIONS section of this label.

#### CHEMIGATION USE DIRECTIONS

##### Spray preparation

First, prepare a suspension of **MAJESTENE**® in a mix tank. Fill tank with ¾ of the amount of water for the area to be treated. Start mechanical or hydraulic agitation. Add the required amount of **MAJESTENE**®, and then the remaining volume of water. If using sprinkler irrigation, 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 **MAJESTENE**® into the irrigation water line, delivering the desired rate of **MAJESTENE**® per acre. Inject the suspension of **MAJESTENE**® with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. **MAJESTENE**® 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 **MAJESTENE**® 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, or hand move, or drip (trickle) irrigation systems (e.g. micro-emitter). 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 **MAJESTENE**® mixture and let the system continue to run only as necessary to purge the line with fresh water. Let the **MAJESTENE**® solution remain in the root zone of the crop.

### **SHAKE WELL BEFORE USE**

#### **FOR USE ON THE FOLLOWING CROPS FOR CONTROL OR SUPPRESSION OF THE FOLLOWING NEMATODES:**

Root-knot (*Meloidogyne spp.*), lesion (*Pratylenchus spp.*), sting (*Belonolaimus spp.*), stunt (*Tylenchorhynchus spp.*), ring (*Bursaphelenchus spp.*), soybean cyst\* (*Heterodera glycines*), stubby-root\* (*Paratrichodorus spp.*) and reniform (*Rotylenchulus spp.*) nematodes

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

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#### **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**

#### **4–8 quarts MAJESTENE® per acre**

For broadcast or chemigation applications, apply at the rate of 4–8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply **MAJESTENE**® at a rate of 4–8 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.

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#### **Bulb Vegetables\***

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

#### **4–8 quarts MAJESTENE® per acre**

For drip chemigation applications, apply at the rate of 4–8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply **MAJESTENE**® at a rate of 4–8 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.

Apply **MAJESTENE**® at the rate of 4–8 quarts per acre by broadcast application or sprinkler chemigation (i.e., lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, and hand move) prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in season on a 21-28 day interval as needed to maintain control. If irrigation is not available, apply **MAJESTENE**® by broadcast application in a minimum of 30 gallons of water per acre followed by natural rainfall. Insufficient rainfall and delay in incorporation of residues can result in poor product performance. Use of sufficient irrigation water to move the product into the root zone will vary depending upon initial soil moisture, organic matter and clay content of the soil.

\* = Not for use in CA

**Nematode management considerations** - To obtain maximum results in a nematode management program, it is important to take soil samples prior to planting to assess nematode populations and determine an appropriate management strategy. Take soil samples early enough to allow for the application of a pre-plant fumigant if warranted by nematode counts. Utilization of the services of a field person or crop consultant who is knowledgeable in nematode management is advised. For maximum crop protection, apply **MAJESTENE**® in-furrow following a shanked in pre-plant fumigant. Make subsequent foliar applications at crop emergence and on a 14-21 day interval until digging. For Columbia root knot nematodes, base the initial foliar application upon soil degree days with an initial post-emergence application made at 1440 degree days (41 F base). Use **MAJESTENE**® in rotation or combination with other registered foliar-applied nematocides. Foliar applications of **MAJESTENE**® must be watered in by rainfall or irrigation, or applied by overhead sprinkler irrigation to move the product into the soil profile.

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#### **Cereal Grains\***

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

##### **4-8 quarts MAJESTENE® per acre**

For broadcast or chemigation applications, apply at the rate of 4-8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply **MAJESTENE**® at a rate of 4-8 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.

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

##### **4-8 quarts MAJESTENE® per acre**

For control of low to medium infestation levels of nematodes, apply **MAJESTENE**® as an in furrow or T-band spray in a minimum of 3 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS section.

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#### **Cotton**

##### **4-8 quarts MAJESTENE® per acre**

Apply **MAJESTENE**® as an in furrow or T-band spray in a minimum of 3 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS section.

##### **4-8 quarts MAJESTENE® per acre**

Apply **MAJESTENE**® through drip irrigation or overhead irrigation after crop emergence and in season on a 21- to 28-day interval as needed to maintain control.

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#### **Cucurbit Vegetables**

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

##### **4-8 quarts MAJESTENE® per acre**

For broadcast or chemigation applications, apply at the rate of 4-8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply **MAJESTENE**® at a rate of 4-8 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.

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## Fruiting Vegetables

### eggplant, Groundcherry, Okra, Pepino, Pepper, Tomato, Tomatillo

#### 4-8 quarts MAJESTENE® per acre

For broadcast or chemigation applications, apply at the rate of 4-8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply MAJESTENE® at a rate of 4-8 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.

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## 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

#### 4-8 quarts MAJESTENE® per acre

For broadcast or chemigation applications, apply at the rate of 4-8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply MAJESTENE® at a rate of 4-8 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.

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## Peanuts\*

#### 4-8 quarts MAJESTENE® per acre.

Apply MAJESTENE® as an in furrow or T-band spray in a minimum of 3 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS section. Make additional in season applications by broadcast or chemigation on a 21-28 day interval as needed to maintain control. Follow broadcast applications immediately by incorporation into the top 2 inches of soil or by incorporation by overhead irrigation.

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## Potatoes

#### 4-8 quarts MAJESTENE® per acre

At planting, apply MAJESTENE® at the rate of 4-8 quarts per acre into the open seed furrow in a 6-8 inch band behind the seed tube. During cultivation, apply MAJESTENE® at the rate of 4-8 quarts per acre as a directed or banded application incorporating the spray into the soil profile. Refer to the table in the SOIL TREATMENT USE DIRECTIONS (In-Furrow and T-Band Applications) section to determine the proper rate per 1000 foot of row.

Apply MAJESTENE® at the rate of 4-8 quarts per acre by broadcast application or sprinkler chemigation (i.e., lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, and hand move) prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter and in season on a 21-28 day interval as needed to maintain control. If irrigation is not available, apply MAJESTENE® by broadcast application in a minimum of 30 gallons of water per acre followed by natural rainfall. Insufficient rainfall and delay in incorporation of residues can result in poor product performance. Use of sufficient irrigation water to move the product into the root zone will vary depending upon initial soil moisture, organic matter and clay content of the soil.

**Nematode management considerations** - To obtain maximum results in a nematode management program, it is important to take soil samples prior to planting to assess nematode populations and determine an appropriate management strategy. Take soil samples early enough to allow for the application of a pre-plant fumigant if warranted by nematode counts. Utilization of the services of a field person or crop consultant who is knowledgeable in nematode management is advised. For maximum crop protection, apply MAJESTENE® in-furrow following a shanked in pre-plant fumigant. Make subsequent foliar applications at crop emergence and on a 14-21 day interval until digging. For Columbia root knot nematodes, base the initial foliar application upon soil degree days with an initial post-emergence application made at 1440 degree days (41 F base). Use MAJESTENE® in rotation or combination with other registered foliar-applied nematicides. Foliar applications of MAJESTENE® must be watered in by rainfall or irrigation, or applied by overhead sprinkler irrigation to the soil profile.

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## Soybean\*

### 4-8 quarts MAJESTENE® per acre

Apply **MAJESTENE®** as an in furrow or T-band spray in a minimum of 3 gallons of water per acre according to the SOIL TREATMENT USE DIRECTIONS section. Make additional in season applications by broadcast or chemigation on a 21-28 day interval as needed to maintain control. Follow broadcast applications immediately by incorporation into the top 2 inches of soil or by incorporation by overhead irrigation.

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### Root and Tuber Vegetables (Except Potatoes)\*

**Artichoke, Black Salsify, Carrot, Cassava, Celeriac, Chayote Root, Chicory, Chinese Artichoke, Edible Burdock, Garden Beet, Ginger, Ginseng, Horseradish, Jerusalem Artichoke, Oriental Radish, Parsnip, Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Sugar Beet, Sweet Potatoes, Tumeric, Turnip, Turniprooted Chervil, Turnip-rooted Parsley and Yams**

### 4-8 quarts MAJESTENE® per acre

At planting, apply **MAJESTENE®** at the rate of 4-8 quarts per acre into the open seed furrow in a 6-8 inch band behind the seed tube. During cultivation, apply **MAJESTENE®** at the rate of 4-8 quarts per acre as a directed or banded application incorporating the spray into the soil profile. Refer to the table in the SOIL TREATMENT USE DIRECTIONS (In-Furrow and T-Band Applications) section to determine the proper rate per 1000 foot of row.

Apply **MAJESTENE®** at the rate of 4-8 quarts per acre by broadcast application or sprinkler chemigation (i.e., lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, and hand move) prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter and in season on a 21-28 day interval as needed to maintain control. If irrigation is not available, apply **MAJESTENE®** by broadcast application in a minimum of 30 gallons of water per acre followed by natural rainfall. Insufficient rainfall and delay in incorporation of residues can result in poor product performance. Use of sufficient irrigation water to move the product into the root zone will vary depending upon initial soil moisture, organic matter and clay content of the soil.

**Nematode management considerations** - To obtain maximum results in a nematode management program, it is important to take soil samples prior to planting to assess nematode populations and determine an appropriate management strategy. Take soil samples early enough to allow for the application of a pre-plant fumigant if warranted by nematode counts. Utilization of the services of a field person or crop consultant who is knowledgeable in nematode management is advised. For maximum crop protection, apply **MAJESTENE®** in-furrow following a shanked in pre-plant fumigant. Make subsequent foliar applications at crop emergence and on a 14-21 day interval until digging. For Columbia root knot nematodes, base the initial foliar application upon soil degree days with an initial post-emergence application made at 1440 degree days (41 F base). Use **MAJESTENE®** in rotation or combination with other registered foliar-applied nematocides. Foliar applications of **MAJESTENE®** must be watered in by rainfall or irrigation, or applied by overhead sprinkler irrigation to move the product into the soil profile.

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## Strawberry

### 4–8 quarts MAJESTENE® per acre

For broadcast or chemigation applications, apply at the rate of 4-8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply **MAJESTENE®** at a rate of 4–8 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.

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## Tropical Fruits:

### Banana, Mangos, Papayas, Pineapple, Plantains

#### 4–8 quarts MAJESTENE® per acre

For broadcast or chemigation applications, apply at the rate of 4-8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply **MAJESTENE®** at a rate of 4–8 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.

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## Tobacco\*

#### 4–8 quarts MAJESTENE® per acre

For broadcast or chemigation applications, apply at the rate of 4-8 quarts per acre prior to planting, at planting or shortly thereafter, at transplant or shortly thereafter, and in-season. For applications as a soil drench, apply **MAJESTENE®** at a rate of 4–8 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.

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# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place. Do not freeze.

**Pesticide Disposal:** To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

## **Container Handling:**

### **For plastic containers less than or equal to 5 gallons:**

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

### **For plastic containers greater than 5 gallons:**

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

**For plastic, refillable containers:** Refillable container. Refill this container with MAJESTENE® only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat rinsing procedure two more times.

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

Visit <http://www.acrecycle.org/contact> 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 accordance with the accompanying directions.

Label date: May 14, 2018

Patent(s) pending

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