



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

EPA Reg. Number:

94485-5

Date of Issuance:

9/18/2020

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Companion Maxx Biological  
 Fungicide Wettable Powder

Name and Address of Registrant (include ZIP Code):

Plant Health Intermediate Inc.  
 1550 East Old 210 Highway  
 Liberty, MO 64068

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

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

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

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

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
2. Submit storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) data as these data requirements are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of this registration to provide these data to the EPA.

Signature of Approving Official:

Cody Kendrick, Risk Manager  
 Microbial Pesticides Branch

Date:

9/18/2020

Biopesticides and Pollution Prevention Division (7511P) Office of Pesticide Programs	
---	--

EPA Form 8570-6

3. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 94485-5.”
4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

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

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 09/10/2020

Any CSFs other than those listed above are superseded.

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

Sincerely,



Cody Kendrick, Risk Manager  
Microbial Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure: EPA stamped label

*Bacillus amyloliquefaciens* strain  
ENV503

Group

**BM02**

Fungicide

# COMPANION® MAXX BIOLOGICAL FUNGICIDE WETTABLE POWDER

- For agricultural use
- Can be used for foliar and soil applications in field, nursery, greenhouse, hydroponics and forest production sites
- For Organic Production

- For Prevention, Control or Suppression of soil and foliar diseases
- Provides both anti-fungal and anti-bacterial activity
- Activates ISR (Induced Systemic Resistance) in plants
- Exempt from MRLs

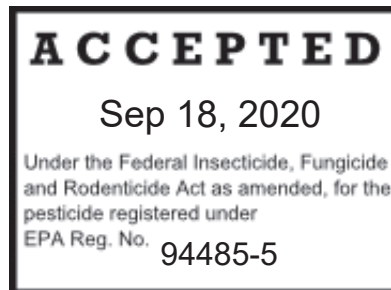
**Active Ingredient:**

*Bacillus amyloliquefaciens* strain ENV503\* ... 0.149%

**Other Ingredients:** ..... 99.851%

**Total:** ..... 100.000%

\*Not less than  $8.35 \times 10^7$  Colony Forming Units (CFU) per Gram of Product.



## KEEP OUT OF REACH OF CHILDREN

**Hotline 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 information on this product, call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 8:00 AM to 12:00 PM Pacific time.

(See (back panel) (side panel) for additional precautionary statements.)

**Another quality product by:**

Plant Health Intermediate Inc.	Net Contents: 8 oz. (226.7 g), 5 lbs. (2.26 kg), 20 lbs. (9 kg), 50 lbs. (22.6 kg), 200 lbs. (90.7 kg)
1550 E. Old State Rt 210	
Liberty, MO 64068	
Questions? Call toll free (800) 648-7626	
	Manufactured in the U.S.A.

**EPA Registration No. 94485-L**

(Lot Code / Batch No. \_\_\_\_\_)

**EPA Establishment No. 94485-IL-1**

Not for sale or use after: (Date stamped/placed on labeling will be 6 months after the date of manufacture.)

---

## PRECAUTIONARY STATEMENTS

---

### Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

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

Mixer/loaders and applicators must wear NIOSH-approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Controls:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.607(d-f)), the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment 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. As soon as possible, wash thoroughly and change into clean clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

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

---

## DIRECTIONS FOR USE

---

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval (REI). The requirements in this box only apply to the 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 four (4) hours.

**EXCEPTION:** If the product is soil-injected or soil incorporated, 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.

PPE required for early entry to treated areas (that is permitted under the Worker Protection standard and that involves contact with anything that has been treated, such as plants, soil or water) is:

- Coveralls
- Shoes plus socks

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are **not** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

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

### PRODUCT INFORMATION AGRICULTURAL CROPS

- **Use on food, forage and flowering crops, tree fruit and nuts**
- **For prevention, control or suppression of root and foliar diseases**
- **Activates the plant's defense / immune system (Induced Systemic Resistance [ISR])**
- **A plant growth-promoting rhizobacteria (PGPR)**
- **Quickly establishes beneficial colonies on roots and leaves**
- **Stimulates healthier roots and improves nutrient uptake**
- **Provides both anti-fungal and anti-bacterial activity**
- **Exempt from MRLs**

#### Product Description:

COMPANION® Maxx Biological Fungicide Wettable Powder is a broad spectrum biological fungicide for the prevention, control or suppression of many soilborne and foliar diseases on the labeled agricultural crops. Apply as foliar spray or as a soil drench alone or in an alternating spray program with other EPA-registered crop protection products. COMPANION® Maxx Biological Fungicide Wettable Powder contains the active ingredient *Bacillus amyloliquefaciens strain ENV503*, a plant growth promoting rhizosphere bacterium that quickly establishes beneficial colonies on the plant's roots and leaves. It protects the roots from invading pathogens, stimulates healthier roots and improves nutrient uptake. *Bacillus amyloliquefaciens strain ENV503* is known to trigger the plant's immune system (ISR).

COMPANION® Maxx Biological Fungicide Wettable Powder can be used on all plant material and is most effective when applied prior to the onset of disease. Use COMPANION® Maxx Biological Fungicide Wettable Powder in combination and/or rotation with chemical fungicides to enhance disease control and reduce the occurrence of resistance. For use on the labeled field-grown agricultural crops including vegetables, herbs, small fruits, berries, and fruit trees. For use in greenhouse production and hydroponics.

Follow the most restrictive of the labeling limitations and precautions of all products used in mixture.

#### Modes of Action:

COMPANION® Maxx Biological Fungicide Wettable Powder has multiple modes of action in preventing, controlling or suppressing plant diseases. Its active ingredient, *Bacillus amyloliquefaciens strain ENV503*, produces broad-spectrum antibiotic lipopeptides (iturin) that disrupt pathogen cell-wall formation and is competitive, fast-colonizing rhizosphere bacterium that occupies the plant's root hairs and leaves. It also prevents the growth and antagonistic effects of soilborne and foliar pathogens. *Bacillus amyloliquefaciens strain ENV503* is known to stimulate phytohormones that trigger the plant's systemic resistance to disease (Induced Systemic Resistance - ISR), the defense mechanisms of the plant for prolonged periods of time.

#### PGPR (Plant Growth-Promoting Rhizobacteria):

*Bacillus amyloliquefaciens strain ENV503* is within the plant growth-promoting rhizobacteria (PGPR) classification. PGPR are free-living bacteria that have beneficial effects on plants as they increase plant productivity, enhance crop fertility, growth and root development.

## DISEASE LIST

<p><b><i>Alternaria alternata</i></b></p> <ul style="list-style-type: none"> <li>- Brown Spot, Leaf Spot, Stem-End Rot</li> </ul> <p><b><i>Alternaria</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Black Root Rot, Early Blight</li> </ul> <p><b><i>Aspergillus</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Black Mold Rot</li> </ul> <p><b><i>Aspergillus niger</i></b></p> <ul style="list-style-type: none"> <li>- Black Mold Rot</li> </ul> <p><b><i>Botrytis cinerea</i></b></p> <ul style="list-style-type: none"> <li>- Crown Rot, Damping-off Fungus, Gray Mold, Leaf Blight</li> </ul> <p><b><i>Candidatus Liberibacter</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Greening (<i>Huanglongbing</i> (HLB))</li> </ul> <p><b><i>Colletotrichum acutatum</i></b></p> <ul style="list-style-type: none"> <li>- Post-Bloom Fruit Drop</li> </ul> <p><b><i>Colletotrichum graminicola</i></b></p> <ul style="list-style-type: none"> <li>- Anthracnose</li> </ul> <p><b><i>Didymella bryoniae</i></b></p> <ul style="list-style-type: none"> <li>- Gummy Stem Blight</li> </ul> <p><b><i>Erwinia</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Cucurbit Wilting, Soft Rot, Angular Leaf Spot, Bacterial Soft Rot</li> </ul> <p><b><i>Fusarium nivale</i></b></p> <ul style="list-style-type: none"> <li>- Fusarium Patch</li> </ul> <p><b><i>Fusarium oxysporum</i></b></p> <ul style="list-style-type: none"> <li>- Wilt</li> </ul> <p><b><i>Fusarium solani</i></b></p> <ul style="list-style-type: none"> <li>- Areolate Leaf Spot</li> </ul> <p><b><i>Fusarium</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Root Rot, Wilt</li> </ul> <p><b><i>Golovinomyces cichoracearum</i> (formerly called <i>Erysiphe cichoracearum</i>)</b></p> <ul style="list-style-type: none"> <li>- Powdery Mildew</li> </ul> <p><b><i>Magnaporthe poae</i></b></p> <ul style="list-style-type: none"> <li>- Summer Patch</li> </ul> <p><b><i>Mycosphaerella</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Black Sigatoka</li> </ul> <p><b><i>Mycosphaerella citri</i></b></p> <ul style="list-style-type: none"> <li>- Greasy Spot</li> </ul>	<p><b><i>Phytophthora aerial blight</i></b></p> <ul style="list-style-type: none"> <li>- Blight, Leaf Spot and Rot</li> </ul> <p><b><i>Phytophthora</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Late Blight, Blackeye / Buckeye Rot in Tomatoes</li> <li>- Brown Rot, Food Rot</li> <li>- Crown and Root Rot</li> </ul> <p><b><i>Phytophthora citricola</i></b></p> <ul style="list-style-type: none"> <li>- Crown and Root Rot</li> </ul> <p><b><i>Phytophthora megasperma</i></b></p> <ul style="list-style-type: none"> <li>- Crown and Root Rot</li> </ul> <p><b><i>Plasmiodiophora brassicae</i></b></p> <ul style="list-style-type: none"> <li>- Corky Root, Clubroot</li> </ul> <p><b><i>Podosphaera xanthii</i> (formerly called <i>Sphaerotheca fuliginea</i>)</b></p> <ul style="list-style-type: none"> <li>- Powdery Mildew</li> </ul> <p><b><i>Pythium</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Root Rot, Damping-off, Pythium</li> </ul> <p><b><i>Rhizoctonia</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Brown Patch</li> </ul> <p><b><i>Rhizoctonia solani</i></b></p> <ul style="list-style-type: none"> <li>- Root Rot, Bottom / Stem Rot</li> <li>- Areolate Leaf Spot</li> </ul> <p><b><i>Sclerotinia</i></b></p> <ul style="list-style-type: none"> <li>- Dollar Spot</li> <li>- Blight, Twig Blight, Fruit Rot, Root Rot</li> </ul> <p><b><i>Septoria lycopersici</i></b></p> <ul style="list-style-type: none"> <li>- Septoria Leaf Spot</li> </ul> <p><b><i>Uncinula necator</i></b></p> <ul style="list-style-type: none"> <li>- Powdery Mildew</li> </ul> <p><b><i>Verticillium</i> spp.</b></p> <ul style="list-style-type: none"> <li>- Wilt</li> </ul> <p><b><i>Xanthomonas campestris</i></b></p> <ul style="list-style-type: none"> <li>- Bacterial Blight / Leaf Spot</li> </ul> <p><b><i>Xanthomonas axonopodis pv citri</i></b></p> <ul style="list-style-type: none"> <li>- Citrus Canker</li> </ul>
---	--

### INTEGRATED PEST (DISEASE) MANAGEMENT (IPM)

Integrate COMPANION® Maxx Biological Fungicide Wettable Powder into an overall disease and pest management strategy whenever fungicide use is necessary. Apply COMPANION® Maxx Biological Fungicide Wettable Powder alone or in



combination and/or rotation with chemical fungicides. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

---

### RESISTANCE MANAGEMENT

---

For resistance management, COMPANION® Maxx Biological Fungicide Wettable Powder contains a Group BM02 fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to COMPANION® Maxx Biological Fungicide Wettable Powder and other Group BM02 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicide/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of COMPANION® Maxx Biological Fungicide Wettable Powder or other Group BM02 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericide different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

---

### PREHARVEST INTERVAL

---

COMPANION® Maxx Biological Fungicide Wettable Powder can be applied up to and including the day of harvest for all crops on this label.

---

### MIXING AND APPLICATION INSTRUCTIONS – AGRICULTURAL USE

---

Apply COMPANION® Maxx Biological Fungicide Wettable Powder with ground spray equipment, including hand-held sprayers; the specified irrigation systems; and fertigation system. Fit sprayers applying COMPANION® Maxx Biological Fungicide Wettable Powder with a strainer size of 50-mesh or larger. Apply in no less than 50 gal. of water per acre. Use through sprinkler, center pivot, lateral move, end tow, side-wheel roll, traveler, solid or hand move systems.

#### Mixing Instructions:

Special care must be taken when tank mixing.

- 1) Prepare no more spray mixture than is required for the immediate operation.
- 2) Thoroughly clean spray equipment before using this product. 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, can cause product to lose effectiveness or strength.
- 3) Vigorously agitate the mixture to dissolve and disperse the product. COMPANION® Maxx Biological Fungicide Wettable Powder must be diluted with water prior to use. Make a slurry in plain water prior to adding to spray tank.
- 4) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 5) Partially fill the spray tank with clean water to the  $\frac{3}{4}$  level and then add the specific pre-dissolved amount of COMPANION® Maxx Biological Fungicide Wettable Powder to the tank as required. Add the remaining water. Mix thoroughly. Maintain agitation continuously while spraying.
- 6) Check pH of tank mix solution prior to adding COMPANION® Maxx Biological Fungicide Wettable Powder. DO NOT mix into tank solution if pH is below 4 and above 9.
- 7) DO NOT allow spray mixture to stand for prolonged periods of time or overnight.
- 8) DO NOT mix with copper based fungicides, concentrated acids such as sulfuric acid, solvents, oxidizing agents or bactericides.
- 9) COMPANION® Maxx Biological Fungicide Wettable Powder is compatible with many commonly used pesticides, fertilizers, adjuvants and surfactants, however do not combine with other materials if there is no previous experience, or use of the combination to show it is physically compatible and non-injurious under your use conditions. Check for Compatibility with other products.

**APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR FIELD CROPS**

Crop	Disease	Product Application Rate, Timing & Frequency
<p><b>Berries, including:</b>                      Blackberry (includes Andean Blackberry, Artic Blackberry, Bingleberry, Black Satin Berry, Boysenberry, Brombeere, California Blackberry, Cherokee Blackberry, Chesterberry, Cheyenne Blackberry, Common Blackberry, Coryberry, Darrowberry, Dewberry, Dirksen Thornless Berry, Evergreen Blackberry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth Blackberry, Marionberry, Mora, Mures Deronce, Nectarberry, Northern Dewberry, Olallieberry, Oregon Evergreen Berry, Phenomenalberry, Rangeberry, Ravenberry, Rosberry, Shawnee Blackberry, Southern Dewberry, Tayberry, Youngberry, and Zarzamora), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Raspberry (Black and Red) Strawberry, and Cultivars, Varieties and/or Hybrids of These. Except for Grapes (Wine, Table and Raisin), Kiwifruit.</p>	<p><b>Black Root Rot, Early Blight</b>  <i>Alternaria</i> spp.  <b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b>  <i>Botrytis cinerea</i>  <b>Root Rot</b>  <i>Pythium</i> spp.  <b>Blight, Leaf Spot and Rot</b>  <i>Phytophthora</i> aerial blight  <b>Wilt</b>  <i>Fusarium oxysporum</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p> <p>For suppression, begin applications prior to disease development and when environmental conditions are conducive to disease development.</p> <p>Apply every 7 – 14 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Brassica (Cole) Leafy Vegetables, including:</b>                      Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choy and Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavalo Broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach and Rape Greens.</p>	<p><b>Black Root Rot, Early Blight</b>  <i>Alternaria</i> spp.  <b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b>  <i>Botrytis cinerea</i>  <b>Corky Root, Clubroot</b>  <i>Plasmiodiophora brassicae</i>  <b>Root Rot</b>  <i>Pythium</i> spp.  <b>Blight, Leaf Spot and Rot</b>  <i>Phytophthora</i> aerial blight  <b>Wilt</b>  <i>Fusarium oxysporum</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p> <p>For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development. Can be used in a tank mix or rotational program with other registered pesticide products.</p> <p>Apply every 7 – 10 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>



**APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR FIELD CROPS**

Crop	Disease	Product Application Rate, Timing & Frequency
<p><b>Cucurbit Vegetables, including:</b> Chayote, Chinese Waxgourd, Citron Melon, Cucumber, Gherkin, Edible Gourds (includes Chinese Okra, Cucuzza, Hechima and Hyotan), <i>Momordica</i> spp. (includes Balsam Apple, Balsam Pear, Bitter Melon and Chinese Cucumber), Muskmelon (includes True Cantaloupe, Cantaloupe, Casaba, Crenshaw Melon, Golden Pershaw Melon, Honeydew Melon, Mango Melon, Persian Melon, Pineapple Melon, Santa Claus Melon, Snake Melon and Hybrids and/or Cultivars of <i>Cucumis melo</i>), Pumpkin, Summer Squash (includes Crookneck Squash, Scallop Squash, Straightneck Squash, Vegetable Marrow and Zucchini), Winter Squash (includes Acorn Squash, Butternut Squash, Calabaza, Hubbard Squash and Spaghetti Squash) and Watermelon (includes Cultivars, Hybrids and/or Varieties of <i>Citrullus lanatus</i>).</p>	<p><b>Black Root Rot, Early Blight</b> <i>Alternaria</i> spp. <b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b> <i>Botrytis cinerea</i> <b>Gummy Stem Blight</b> <i>Didymella bryoniae</i> <b>Cucurbit Wilting, Soft Rot, Angular Leaf Spot, Bacterial Soft Rot</b> <i>Erwinia</i> spp. <b>Powdery Mildew</b> <i>Golovinomyces cichoracearum</i> (formerly called <i>Erysiphe cichoracearum</i>), <i>Podosphaera xanthii</i> (formerly called <i>Sphaerotheca fuliginea</i>) <b>Root Rot</b> <i>Pythium</i> spp. <b>Blight, Leaf Spot and Rot</b> <i>Phytophthora</i> aerial blight <b>Wilt</b> <i>Fusarium oxysporum</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre  0.226 Kg (226 g) – 0.680 Kg per Hectare  For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development.  Apply every 7 – 10 days.  Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Citrus Fruits, including:</b> Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Orange, Pummelo, Satsuma Mandarin, Tangelo, Tangerine and Cultivars, Varieties and/or Hybrids of These.</p>	<p><b>Brown Spot, Leaf Spot, Stem-End Rot</b> <i>Alternaria alternate</i> <b>Black Mold Rot</b> <i>Aspergillus</i> spp. <b>Greening (Huanglongbing (HLB))</b> <i>Candidatus Liberibacter</i> spp. <b>Post-Bloom Fruit Drop</b> <i>Colletotrichum acutatum</i> <b>Root Rot, Wilt</b> <i>Fusarium</i> spp. <b>Brown Rot, Foot Rot</b> <i>Phytophthora</i> spp. <b>Damping-off, Root Rot</b> <i>Pythium</i> spp. <b>Areolate Leaf Spot</b> <i>Rhizoctonia solani</i> <b>Blight, Twig Blight, Fruit Rot, Root Rot</b> <i>Sclerotinia</i> <b>Bacterial Leaf Spot</b> <i>Xanthomonas campestris</i> <b>Citrus Canker</b> <i>Xanthomonas axonopodis</i> pv. <i>citri</i> <b>Greasy Spot</b> <i>Mycosphaerella citri</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre  0.226 Kg (226 g) – 0.680 Kg per Hectare  For suppression, begin applications at the onset of first new foliar flush on all citrus varieties and when environmental conditions are conducive to disease development.  Apply every 7 – 14 days.  Use Companion® Maxx Biological Fungicide Wettable Powder in a tank mix or rotational program with other registered pesticide products.  Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>

**APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR FIELD CROPS**

Crop	Disease	Product Application Rate, Timing & Frequency
<p>Grape (Wine, Table and Raisin), Kiwifruit Passionfruit.</p>	<p><b>Powdery Mildew</b> <i>Uncinula necator</i> <b>Damping-Off, Root Rot</b> <i>Pythium</i> spp. <b>Crown and Root Rot</b> <i>Phytophthora</i> spp., <i>Phytophthora citricola</i>, <i>Phytophthora megasperma</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p> <p>For suppression, begin applications when environmental conditions are conducive to disease development and repeat.</p> <p>Apply every 7 – 14 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Herbs and Spices, including:</b> Allspice, Angelica, Anise, Annatto, Basil, Chamomile, Caraway, Cardamom, Cassia, Celery Seed, Chervil (Dried), Chives, Cinnamon, Coriander, Cumin, Curry, Dill, Fennel, Fenugreek, Horehound, Hyssop, Juniper Berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Oregano, Parsley (Dried), Pepper, Rosemary, Rue, Saffron, Sage, Savory, Sweet Bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff and Wormwood.</p> <p><b>Mint</b></p>	<p><b>Black Root Rot, Early Blight</b> <i>Alternaria</i> spp. <b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b> <i>Botrytis cinerea</i> <b>Root Rot</b> <i>Pythium</i> spp. <b>Blight, Leaf Spot and Rot</b> <i>Phytophthora</i> aerial blight <b>Wilt</b> <i>Fusarium oxysporum</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p> <p>For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development.</p> <p>Apply every 7 – 14 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Fruiting Vegetables, including:</b> Eggplant, Groundcherry, Okra, Pepino, Pepper (includes Bell Pepper, Chili Pepper, Cooking Pepper, Pimento and Sweet Pepper), Tomatillo, Tomato and Cultivars, Varieties and/or Hybrids of These.</p>	<p><b>Aspergillus</b> spp. <b>Black Root Rot, Early Blight</b> <i>Alternaria</i> spp. <b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b> <i>Botrytis cinerea</i> <b>Root Rot</b> <i>Pythium</i> spp. <b>Late Blight, Blackeye / Buckeye Rot in Tomatoes</b> <i>Phytophthora</i> spp. <b>Wilt</b> <i>Fusarium oxysporum</i> <b>Root Rot, Bottom / Stem Rot</b> <i>Rhizoctonia solani</i> <b>Blight</b> <i>Sclerotinia minor</i> <b>Bacterial Leaf Spot</b> <i>Xanthomonas campestris</i> <b>Septoria Leaf Spot</b> <i>Septoria lycopersici</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p> <p>For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development. Can be used in a tank mix or rotational program with other registered pesticide products.</p> <p>Apply every 7 – 14 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>

**APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR FIELD CROPS**

Crop	Disease	Product Application Rate, Timing & Frequency
<p><b>Leafy Vegetables (Except <i>Brassica</i> Vegetables), including:</b>                      Amaranth, Arugula, Cardoon, Celery, Celtuce, Chervil, Chinese Celery, Chrysanthemum (Edible-Leaved and Garland), Corn Salad, Cress (Garden and Upland), Dandelion, Dock (Sorrel), Endive (Escarole), Fennel, Lettuce (Head and Leaf), Orach, Parsley, Purslane (Garden and Winter), Radicchio, Rhubarb, Spinach, Spinach (New Zealand and Vine) and Swiss Chard, including Those Grown for Seed Production.</p>	<p><b>Black Root Rot, Early Blight</b>  <i>Alternaria</i> spp.</p> <p><b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b>  <i>Botrytis cinerea</i></p> <p><b>Root Rot</b>  <i>Pythium</i> spp.</p> <p><b>Powdery Mildew</b>  <i>Golovinomyces cichoracearum</i> (formerly called <i>Erysiphe cichoracearum</i>), <i>Podosphaera xanthii</i> (formerly called <i>Sphaerotheca fuliginea</i>)</p> <p><b>Blight, Leaf Spot and Rot</b>  <i>Phytophthora</i> aerial blight</p> <p><b>Root Rot, Bottom / Stem Rot</b>  <i>Rhizoctonia solani</i></p> <p><b>Lettuce Drop Wilt</b>  <i>Sclerotinia minor</i></p> <p><i>Fusarium oxysporum</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p> <p>For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development.</p> <p>Apply every 7 – 14 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Legume Vegetables, including:</b>                      Bean, Broad Bean, Chickpea, Guar, Jackbean, Lentil, Pea, Pigeon Pea and Soybean.</p>	<p><b><i>Aspergillus</i> spp.</b></p> <p><b>Black Root Rot, Early Blight</b>  <i>Alternaria</i> spp.</p> <p><b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b>  <i>Botrytis cinerea</i></p> <p><b>Root Rot</b>  <i>Pythium</i> spp.</p> <p><b>Blight, Leaf Spot and Rot</b>  <i>Phytophthora</i> aerial blight</p> <p><b>Root Rot, Bottom / Stem Rot</b>  <i>Rhizoctonia solani</i></p> <p><b>Wilt</b>  <i>Fusarium oxysporum</i></p> <p><b>Blight</b>  <i>Sclerotinia minor</i></p> <p><b>Bacterial Blight / Leaf Spot</b>  <i>Xanthomonas campestris</i></p> <p><b>Septoria Leaf Spot</b>  <i>Septoria lycopersici</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p> <p>For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development.</p> <p>Apply every 7 – 14 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Bulb Vegetables, including:</b>                      Fresh Leaves Chive, Garlic, Leek, Onion, Shallot and Cultivars, Varieties and/or Hybrids of These.</p>	<p><b>Black Root Rot, Early Blight</b>  <i>Alternaria</i> spp.</p> <p><b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf</b></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre</p> <p>0.226 Kg (226 g) – 0.680 Kg per Hectare</p>

**Blight**

*Botrytis cinerea*

**Root Rot**

*Pythium* spp.

**Blight, Leaf Spot and Rot**

*Phytophthora* aerial blight

**Blight**

*Sclerotinia* *minor*

**Bacterial Blight/ Leaf Spot**

*Xanthomonas campestris*

**Soft Rot, Angular Leaf Spot,**

**Bacterial Soft Rot**

*Erwinia* spp.

For suppression, begin applications when environmental conditions are conducive to disease development and repeat.

Apply every 7 – 14 days.

Apply through standard spray equipment with no less than 50 gal. water per Acre.

**APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR FIELD CROPS**

Crop	Disease	Product Application Rate, Timing & Frequency
<p><b>Root and Tuber Vegetables, including:</b>                      Arracacha, Arrowroot, Artichoke, Beet, Carrot, Cassava, Celeriac, Chayote (Root), Chervil (Turnip-Rooted), Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet Potato, Turmeric, Turnip and Yam.</p>	<p><b>Black Root Rot, Early Blight</b>  <i>Alternaria</i> spp.  <b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b>  <i>Botrytis cinerea</i>  <b>Root Rot</b>  <i>Pythium</i> spp.  <b>Soft Rot, Angular Leaf Spot, Bacterial Soft Rot</b>  <i>Erwinia</i> spp.  <b>Root Rot, Bottom / Stem Rot</b>  <i>Rhizoctonia solani</i>  <b>Fusarium solani</b></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre                       0.226 Kg (226 g) – 0.680 Kg per Hectare                       For suppression, begin applications when environmental conditions are conducive to disease development and repeat.                       Apply every 7 – 14 days.                       Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Tropical and Subtropical Fruits, Inedible Peel (Except Banana, Passionfruit and Plantain), including:</b>                      Mango, Papaya, Avocado and Pineapples.</p> <p><b>Coffee</b></p>	<p><b>Root Rot</b>  <i>Pythium</i> spp.  <b>Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight</b>  <i>Botrytis cinerea</i>  <b>Powdery Mildew</b>  <i>Golovinomyces cichoracearum</i> (formerly called <i>Erysiphe cichoracearum</i>)  <b>Wilt</b>  <i>Fusarium oxysporum</i></p>	<p>½ lb (8 oz) – 1 ½ lb per Acre                       0.226 Kg (226 g) – 0.680 Kg per Hectare                       For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development.                       Apply every 7 – 14 days.                       Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p><b>Banana and Plantain</b></p>	<p><b>Black Sigatoka</b>  <i>Mycosphaerella</i> spp.</p>	<p>½ lb (8 oz) – 1 ½ lb per Acre                       0.226 Kg (226 g) – 0.680 Kg per Hectare                       Begin applications when leaves first appear and repeat every 7 days. For improved disease control, Companion® Maxx Biological Fungicide Wettable Powder can be tank mixed with oil or other registered fungicides for control of Black Sigatoka.                      Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>

**APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR TURF AND ORNAMENTALS**

<b>Crop</b>	<b>Disease</b>	<b>Product Application Rate, Timing &amp; Frequency</b>
<b>Ornamental Trees including:</b> Field Grown, Container Grown and Liner Beds of Deciduous, Conifers, Evergreens, Fruit Trees and Ornamental Shrubs	Root Rot <i>Pythium</i> spp., Crown Rot, Damping-off Fungus, Gray Mold, Leaf Blight <i>Botrytis Cinerea</i> , Powdery Mildew <i>Golovinomyces Cichoracearum</i> (formerly called <i>Erysiphe Cichoracearum</i> ), Wilt	½ lb (8 oz) – 1 ½ lb per acre  0.226 kg (226 g) – 0.680 kg per hectare  For suppression, begin applications soon after emergence or transplant and when environmental conditions are conducive to disease development.  Apply every 7-14 days.
<b>Grasses Grown for Seed, Sod Production and Pasture and Forage Grasses</b>	<b>Anthracnose</b> <i>Colletotrichum graminicola</i> <b>Brown Patch</b> <i>Rhizoctonia</i> spp. <b>Dollar Spot</b> <i>Sclerotinia</i> <b>Summer Patch</b> <i>Magnaporthe poae</i> <b>Fusarium Patch</b> <i>Fusarium nivale</i> <b>Pythium</b> <i>Pythium</i> spp.	½ lb (8 oz) – 1 ½ lb per Acre  0.226 Kg (226 g) – 0.680 Kg per Hectare  Apply at time of seeding, plugging sprigs and newly cut ribbons.  Apply through standard spray equipment with no less than 50 gal water per Acre.  Apply every 7 – 14 days.

**HOW TO APPLY**

**AS A FOLIAR AND SOIL DRENCH APPLICATION**

**Agriculture Applications:** Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

**Foliar Application**

Apply as a spray for suppression or control of fungal and bacterial diseases of foliage, flower, developing fruit and other above-ground parts of plants. Mix Companion® Maxx Biological Fungicide Wettable Powder with sufficient amount of water per acre to cover treated area. Apply direct sprays to provide thorough coverage of crop canopy to run off. Companion® Maxx Biological Fungicide Wettable Powder can be mixed or rotated with other fungicides to improve efficacy and reduce resistance. Apply by ground spray equipment or chemigation. Companion® Maxx Biological Fungicide Wettable Powder can be applied up to and including the day of harvest.



## Soil Application

### Drench Application:

For disease control and suppression of soilborne diseases of seedlings, roots, crown, and stems. Start applications of Companion® Maxx Wettable Powder at crop emergence or when transplant plugs are set. Repeat at 7 to 14 day intervals or for as long as environmental conditions are favorable for disease development. Use sufficient water to provide thorough coverage of roots and crown. For established plants, begin application prior to disease development and when environmental conditions are conducive to disease. Apply by ground equipment or chemigation. Apply in sufficient water to obtain adequate coverage.

- Soil or Seedline Drench, or banded spray (in-furrow) at planting. Seedlings: Mix into field transplant water and drench at the time of planting of seeds. Drench in a seedline or banded spray (in furrow) at time of planting plug, starter plant, or bare-root transplant. See section on “Banded (in-furrow) application” below for additional instructions.
- Dip bare-root plants, then soak in the solution of Companion® Maxx Biological Fungicide Wettable Powder. Mix 4 oz. to 8 oz. of in 100 gallons of water and mix well. Submerge transplant in mix for 1 – 5 minutes and plant immediately. The whole plant can be dipped, if desired. COMPANION® Maxx Biological Fungicide Wettable Powder can be used in a tank mix or rotational program with other registered products.
- Plug Drench / Dip: Mix 4 oz. to 8 oz. in 100 gallons of water. Thoroughly mix Companion® Maxx Biological Fungicide Wettable Powder in water. Soil drench plug trays, plants in flats or pots in the greenhouse or nursery any time prior to transplanting. Submerge in mix for 30 seconds. The whole plug tray can be dipped, if desired. Can be tank mixed with other registered pesticides.
- Drip (trickle), micro sprinklers or any type of sprinkler irrigation. Apply any time after planting or transplanting. See Chemigation Instructions for additional information. Add to stock solution. Do not mix with concentrated acids or if pH of solution is below 4 or above 9. Use all of the solution on the same day. Inject during the last half of irrigation cycle so that Companion® Maxx Biological Fungicide Wettable Powder is in the root zone and not lost to deep percolation. Begin applications when conditions first become favorable for disease development.
- Soil Spray on soil surface for established plants, vines and trees for root disease pressure. Follow application with sufficient irrigation water to ensure penetration into root zone. See rates for specific crops.
- Injection directly into root zone with deep root feeding shank or knife.

### In-Furrow / Banding

Mix with transplant water. Apply as an in-furrow drench, in sufficient water to obtain thorough coverage of the open furrow, covering soil. Apply at time of planting plug, starter plant or cutting. In-furrow applications are more effective against soil-borne diseases that may develop later in the growing season.

Spray directly onto soil using single or multiple nozzles. Adjust to provide thorough coverage of soil surface surrounding plants. Limit band to 4' – 6' wide or drench over seed line centered over the planting furrow. Can be applied directly over seeds prior to soil cover and plastic. Begin applications at time of when conditions first become favorable for disease development. Volume of water required will depend on the application equipment used. Apply on a 7 – 14 day intervals or as required.

Dry ounces needed per 1,000 linear feet of banded spray for growing row width.

Dry oz./Acre	10 inches	20 inches	30 inches	40 inches	50 inches
4	1	2	4	5	24
8	2	5	7	10	12
12	4	7	11	15	18
16	5	10	15	20	24
24	7	15	22	29	37

**Nursery, Greenhouse, Shade House Crops:**

Foliar Diseases: Mix 8 dry oz. to 1 lb. COMPANION® Maxx Biological Fungicide Wettable Powder in 100 gallons of water. Foliar spray entire plant to the point of runoff. For preventive control, begin applications when plant emerges and repeat every 7 – 28 days. During high disease pressure repeat application every 7 days with higher label rate.

Drench application: Mix 8 dry oz. to 1 lb. COMPANION® Maxx Biological Fungicide Wettable Powder in 100 gallons of water. Apply as a drench to soil media in trays, plug trays, flats or beds for prevention, control or suppression of soilborne diseases of seedlings of vegetable or other food transplant crops. Apply immediately after seeding or germination, or when sticking cuttings. Reapply every 7 – 28 days or as needed. See Plug Dip / Drench rates above.

Cutting or root dip: Dip basal end of cuttings or bare roots (individually or in bunches) in a suspension of 4 – 8 grams ¼ oz. to ½ oz. of COMPANION® Maxx Biological Fungicide Wettable Powder) in 1 gallon of water. Immerse for 5-10 seconds immediately before planting.

**Seed Treatment:**

Not for use on agricultural establishments in hopper box, planter box, slurry box or other seed treatment applications at or immediately before planting.

Prepare no more mixture than is required for the immediate operation. When tank mixing 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.

*For commercial seed treatment:* This product does not contain dye. All seed treated commercially with this product must be colored with an EPA-approved dye or colorant of a suitable color to prevent accidental use as food for humans or feed for animals.

The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information: “This seed has been treated with *Bacillus amyloliquefaciens* strain ENV503. Do not use for food, feed, or oil purposes. Store away from feeds and foodstuffs.”

Seed Treatment COMPANION® Maxx Biological Fungicide Wettable Powder	Rate per 100 pounds
Legume Vegetables including Green Beans, Snap Bean, Lima Bean, Kidney Bean, Navy Bean, Pinto Bean, Wax Bean, Pole Bean, Garden Pea, Pea and Field Bean and Soybeans	1/3 to 1/2 oz per 100 lbs
Wheat and Barley	1/4 to 1/3 oz per 100 lbs

Corn	1 1/4 to 2 oz per 100 lbs.
Cut seed Potato	2 ounces per 100 lbs.
Cotton	¼ per 100lbs
Peanut <sup>1</sup>	1/8 per 100lbs
All Other Agricultural Seed: (Brassica (Cole) Leafy Vegetables, Cucurbits vegetables, Fruiting Vegetables, Leafy Vegetables, Bulb Vegetables and Root and Tuber Vegetables	¼ to ½ per 100lbs
Other Crop Seed, compare with above	1/4-2 oz per 100 lbs.

<sup>1</sup>Not for use in California

---

### CHEMIGATION

---

#### Overall Requirements -

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

**Specific Requirements for Flood (Basin), Furrow and Border Chemigation -**

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
- 2) The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
  - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
  - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
  - e. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
  - f. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

**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 that 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 filled 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. Product can be applied continuously or at any time during the water application.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a dry place out of direct sunlight and away from heat sources. Keep from overheating or freezing.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:**

*(For containers 4 and 8 ounce foil packets)*

Nonrefillable container. Do not reuse or refill this container. Completely empty packet into application equipment, then offer for recycling if available or dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

*(For containers ≤ 50 lbs.)*

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 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. If burned, stay out of smoke.

*(For containers >50 lbs.)*

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 ¼ 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

### Warranty and Disclaimer Notice

The directions for use of this product are believed to be adequate and must be followed carefully, it is impossible to eliminate all risk inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result due to such factors as weather conditions, presence or absences of other materials, or the manner of use or application, all of which are beyond the control of Plant Health Intermediate Inc., the manufacturer, or the seller.

To the extent consistent with applicable law, the products sold to you are furnished "as is" by Plant Health Intermediate Inc. The manufacturer and the seller are subject only to the manufacturer's warranties, if any, which appear on the label of the product sold to you. Except as warranted by this label, Plant Health Intermediate Inc, the manufacturer, or the seller makes no warranties, guarantees, or representations of any kind to the buyer or the user, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold or use of the product, including, but not limited to merchantability, fitness for a particular purpose or use, or eligibility of the product for any particular trade usage. To the extent consistent with applicable law, Buyer's or user's exclusive remedy, and Plant Health Intermediate Inc., the manufacturer's or the seller's total liability shall be limited to damages not exceeding the cost of the product. No agent or employee of Plant Health Intermediate Inc., or the seller is authorized to amend the terms of this warranty disclaimer or the product's label or to make a presentation or recommendation different from or inconsistent with the label of this product.

To the extent consistent with applicable law, Plant Health Intermediate, Inc., the manufacturer, or the seller shall not be liable for consequential, special, or indirect damages resulting for the use, handling, application, storage, or disposal of this product or for damages in the nature of penalties, and buyer and the user waive any right that they may have to such damages.