



<i>Bacillus amyloliquefaciens</i> strain ENV503	Group	BM02	Fungicide
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COMPANION[®] MAXX LIQUID BIOLOGICAL FUNGICIDE

- Companion[®] Maxx Liquid Biological Fungicide for Agricultural Use
- For Prevention, Control or Suppression of Soil and Foliar Diseases
- Activates ISR (Induced Systemic Resistance) in Plants

Active Ingredient

Bacillus amyloliquefaciens strain ENV503* 00.00078%

Other Ingredients..... 99.99922%

Total:..... 100.00000%

*Not less than 6.2 X 10¹⁰ Colony Forming Units (CFU) per gallon of product

The product density is 9.9 lbs/gal.

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 Page 2 of Booklet for additional precautionary statements.)

Another quality product for:

Plant Health Intermediate Inc.	
1550 East Old 210 Highway	
Liberty, MO 64068	
Questions? Call toll free (800) 648-7626	

EPA Registration No. 94485-4

EPA Establishment No. 71065-NY-1

(Lot Code / Batch No. _____)

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

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

Net Contents: 2.5 Gallons (24.75 lbs)
 9.46 Liters (11.23 kg) 30 Gallons (297 lbs)
 113.6 Liters (134.7 kg) 275 Gallons (2,722.5 lbs)
 1,041 Liters (472.19 kg)

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 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) and (e)], 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 State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and Restricted-Entry Interval (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
- Chemical-resistant gloves (made of any waterproof material)
- Shoes plus socks

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

Companion® Maxx Liquid Biological Fungicide can be used on all plant material and is most effective when applied prior to the onset of disease. Use Companion® Maxx Liquid Biological Fungicide in combination and/or rotation with chemical fungicides [and bactericides] 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 and nut 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 Liquid Biological Fungicide 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, which 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><i>Alternaria alternata</i> - Brown Spot, Leaf Spot, Stem-End Rot</p> <p><i>Alternaria</i> spp. - Black Root Rot, Early Blight</p> <p><i>Aspergillus</i> spp. - Black Mold Rot</p> <p><i>Aspergillus niger</i> - Black Mold Rot</p> <p><i>Botrytis cinerea</i> - Crown Rot, Damping-off Fungus, Gray Mold, Leaf Blight</p> <p><i>Candidatus Liberibacter</i> spp. - Greening (<i>Huanglongbing</i> (HLB))</p> <p><i>Colletotrichum acutatum</i> - Post-Bloom Fruit Drop</p> <p><i>Colletotrichum graminicola</i> - Anthracnose</p> <p><i>Didymella bryoniae</i> - Gummy Stem Blight</p> <p><i>Erwinia</i> spp. - Cucurbit Wilting, Soft Rot, Angular Leaf Spot, Bacterial Soft Rot</p> <p><i>Fusarium nivale</i> - Fusarium Patch</p> <p><i>Fusarium oxysporum</i> - Wilt</p> <p><i>Fusarium solani</i> - Areolate Leaf Spot</p> <p><i>Fusarium</i> spp. - Root Rot, Wilt</p> <p><i>Golovinomyces cichoracearum</i> (formerly called <i>Erysiphe cichoracearum</i>) - Powdery Mildew</p> <p><i>Magnaporthe poae</i> - Summer Patch</p> <p><i>Mycosphaerella</i> spp. - Black Sigatoka</p> <p><i>Mycosphaerella citri</i> - Greasy Spot</p>	<p><i>Phytophthora aerial blight</i> - Blight, Leaf Spot and Rot</p> <p><i>Phytophthora</i> spp. - Late Blight, Blackeye / Buckeye Rot in Tomatoes - Brown Rot, Food Rot - Crown and Root Rot</p> <p><i>Phytophthora citricola</i> - Crown and Root Rot</p> <p><i>Phytophthora megasperma</i> - Crown and Root Rot</p> <p><i>Plasmidiophora brassicae</i> - Corky Root, Clubroot</p> <p><i>Podosphaera xanthii</i> (formerly called <i>Sphaerotheca fuliginea</i>) - Powdery Mildew</p> <p><i>Pythium</i> spp. - Root Rot, Damping-off, Pythium</p> <p><i>Rhizoctonia</i> spp. - Brown Patch</p> <p><i>Rhizoctonia solani</i> - Root Rot, Bottom / Stem Rot - Areolate Leaf Spot</p> <p><i>Sclerotinia</i> - Dollar Spot - Blight, Twig Blight, Fruit Rot, Root Rot</p> <p><i>Septoria lycopersici</i> - Septoria Leaf Spot</p> <p><i>Uncinula necator</i> - Powdery Mildew</p> <p><i>Verticillium</i> spp. - Wilt</p> <p><i>Xanthomonas campestris</i> - Bacterial Blight / Leaf Spot</p> <p><i>Xanthomonas axonopodis pv citri</i> - Citrus Canker</p>
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INTEGRATED PEST (DISEASE) MANAGEMENT (IPM)

Companion[®] Maxx Liquid Biological Fungicide is an important tool in sound disease management whenever fungicide use is necessary. Apply Companion[®] Maxx Liquid Biological Fungicide alone or in combination and / or rotation with chemical fungicides. This will result in reduced susceptibility to disease and overall reduction in the use of chemical fungicides. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

RESISTANCE MANAGEMENT

For resistance management, Companion[®] Maxx Liquid Biological Fungicide contains a Group BM02 fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to Companion[®] Maxx Liquid Biological Fungicide

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 Liquid Biological Fungicide 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 – AGRICULTURAL USE

Companion® Maxx Liquid Biological Fungicide can be applied up to and including the day of harvest.

MIXING AND APPLICATION INSTRUCTIONS

Apply Companion® Maxx Liquid Biological Fungicide with ground spray equipment, including hand-held sprayers; the specified irrigation systems; and fertigation system. Fit sprayers applying Companion® Maxx Liquid Biological Fungicide with a strainer size of 50-mesh or larger. Apply in no less than 50 gal. of water per acre.

Tank Mixing:

Special care must be taken when tank mixing.

- 1) SHAKE WELL before use and before mixing with water. 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.
- 4) Companion® Maxx Liquid Biological Fungicide must be diluted with water prior to use.
- 5) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 6) Partially fill the spray tank with clean water to the $\frac{3}{4}$ level and then add the specific amount of Companion® Maxx Liquid Biological Fungicide to the tank as required. Add the remaining water. Mix thoroughly.
- 7) Check pH of tank mix solution prior to adding Companion® Maxx Liquid Biological Fungicide.
- 8) DO NOT allow spray mixture to stand for prolonged periods of time or overnight.

Compatibility:

Companion® Maxx Liquid Biological Fungicide is compatible with many fertilizers, micronutrients, organic materials, wetting agents, adjuvant, surfactants, most fungicides, herbicides and insecticides, 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 conditions. Check for compatibility with other products. Companion® Maxx Biological Fungicide 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. Therefore, prior to treating entire crop, test a small portion of the crop for sensitivity. Consult your Plant Health Intermediate representative for more information on Companion® Maxx Biological Fungicide compatibility with pesticides, surfactants and fertilizers.

Restriction:

DO NOT mix with copper based fungicides, concentrated acids such as sulfuric acid, solvents, oxidizing agents or bactericides. DO NOT mix with products with a pH below 4 or above 9. Consult specific product labels for additional

information or restrictions concerning tank mixing. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR FIELD CROPS		
Crop	Disease	Product Application Rate, Timing & Frequency
<p>Berries, including: Blackberry (includes Bingleberry, Black Satin Berry, Boysenberry, Cherokee Blackberry, Chesterberry, Cheyenne Blackberry, Coryberry, Darrowberry, Dewberry, Dirksen Thornless Berry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth Blackberry, Marionberry, Nectarberry, Olallieberry, Oregon Evergreen Berry, Phenomenalberry, Rangeberry, Ravenberry, Rossberry, Shawnee Blackberry and Youngberry), Blueberry, Cranberry, Currant, Elderberry, Strawberry, Gooseberry, Huckleberry, Raspberry (Black and Red) and Cultivars, Varieties and/or Hybrids of These. Except for Grapes (Wine, Table and Raisin), Kiwifruit.</p>	<p>Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Root Rot <i>Pythium</i> spp. Blight, Leaf Spot and Rot <i>Phytophthora</i> aerial blight Wilt <i>Fusarium oxysporum</i></p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>Brassica (Cole) Leafy Vegetables, including: 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>Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Corky Root, Clubroot <i>Plasmodiophora brassicae</i> Root Rot <i>Pythium</i> spp. Blight, Leaf Spot and Rot <i>Phytophthora</i> aerial blight Wilt <i>Fusarium oxysporum</i></p>	<p>32 – 96 fluid oz. per Acre 2.33-7.00 liter 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>Cucurbit Vegetables, including: 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>Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Gummy Stem Blight <i>Didymella bryoniae</i> Cucurbit Wilting, Soft Rot, Angular Leaf Spot, Bacterial Soft Rot <i>Erwinia</i> spp. Powdery Mildew <i>Golovinomyces cichoracearum</i> (formerly called <i>Erysiphe cichoracearum</i>), <i>Podosphaera xanthii</i> (formerly called <i>Sphaerotheca fuliginea</i>) Root Rot <i>Pythium</i> spp. Blight, Leaf Spot and Rot <i>Phytophthora</i> aerial blight Wilt <i>Fusarium oxysporum</i></p>	<p>32 – 96 fluid oz. per Acre 2.33-7.00 liters 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 – 10 days.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>
<p>Citrus Fruits, including: Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Orange, Pummelo, Satsuma Mandarin, Tangelo, Tangerine and Cultivars, Varieties and/or Hybrids of These.</p>	<p>Brown Spot, Leaf Spot, Stem-End Rot <i>Alternaria alternate</i> Black Mold Rot <i>Aspergillus</i> spp. Greening (Huanglongbing (HLB)) <i>Candidatus Liberibacter</i> spp. Post-Bloom Fruit Drop <i>Colletotrichum acutatum</i> Root Rot, Wilt <i>Fusarium</i> spp. Brown Rot, Foot Rot <i>Phytophthora</i> spp. Damping-off, Root Rot <i>Pythium</i> spp. Areolate Leaf Spot <i>Rhizoctonia solani</i> Blight, Twig Blight, Fruit Rot, Root Rot <i>Sclerotinia</i> Bacterial Leaf Spot <i>Xanthomonas campestris</i> Citrus Canker <i>Xanthomonas axonopodis</i> pv. <i>citri</i> Greasy Spot <i>Mycosphaerella citri</i></p>	<p>32 – 96 fluid oz. per Acre 2.33-7.00 liters per Hectare</p> <p>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.</p> <p>Apply every 7 – 14 days.</p> <p>Use Companion® Maxx Liquid Biological Fungicide in a tank mix or rotational program with other registered pesticide products.</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>Grape (Wine, Table and Raisin) Kiwifruit Passionfruit.</p>	<p>Powdery Mildew <i>Uncinula necator</i> Damping-Off, Root Rot <i>Pythium</i> spp. Crown and Root Rot <i>Phytophthora</i> spp., <i>Phytophthora citricola</i>, <i>Phytophthora megasperma</i></p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>Herbs and Spices, including: 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>Mint</p>	<p>Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Root Rot <i>Pythium</i> spp. Blight, Leaf Spot and Rot <i>Phytophthora</i> aerial blight Wilt <i>Fusarium oxysporum</i></p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>Fruiting Vegetables, including: 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>Aspergillus spp. Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Root Rot <i>Pythium</i> spp. Late Blight, Blackeye / Buckeye Rot in Tomatoes <i>Phytophthora</i> spp. Wilt <i>Fusarium oxysporum</i> Root Rot, Bottom / Stem Rot <i>Rhizoctonia solani</i> Blight <i>Sclerotinia minor</i> Bacterial Leaf Spot <i>Xanthomonas campestris</i> Septoria Leaf Spot <i>Septoria lycopersici</i></p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters per Hectare 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. Apply every 7 – 14 days. 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>Leafy Vegetables (Except Brassica Vegetables), including: 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>Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Root Rot <i>Pythium</i> spp. Powdery Mildew <i>Golovinomyces cichoracearum</i> (formerly called <i>Erysiphe cichoracearum</i>), <i>Podosphaera xanthii</i> (formerly called <i>Sphaerotheca fuliginea</i>) Blight, Leaf Spot and Rot <i>Phytophthora</i> aerial blight Root Rot, Bottom / Stem Rot <i>Rhizoctonia solani</i> Lettuce Drop <i>Sclerotinia minor</i> Wilt <i>Fusarium oxysporum</i></p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>Legume Vegetables, including: Bean, Broad Bean, Chickpea, Guar, Jackbean, Lentil, Pea, Pigeon Pea and Soybean.</p>	<p>Aspergillus spp. Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Root Rot <i>Pythium</i> spp. Blight, Leaf Spot and Rot <i>Phytophthora</i> aerial blight Root Rot, Bottom / Stem Rot <i>Rhizoctonia solani</i> Wilt <i>Fusarium oxysporum</i> Blight <i>Sclerotinia minor</i> Bacterial Blight / Leaf Spot <i>Xanthomonas campestris</i> Septoria Leaf Spot <i>Septoria lycopersici</i></p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>Bulb Vegetables, including: Fresh Leaves Chive, Garlic, Leek, Onion, Shallot and Cultivars, Varieties and/or Hybrids of These.</p>	<p>Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Root Rot <i>Pythium</i> spp. Blight, Leaf Spot and Rot <i>Phytophthora</i> aerial blight Blight <i>Sclerotinia minor</i> Bacterial Blight/ Leaf Spot <i>Xanthomonas campestris</i> Soft Rot, Angular Leaf Spot, Bacterial Soft Rot <i>Erwinia</i> spp.</p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>

APPLICATIONS AS A FOLIAR OR SOIL SPRAY FOR FIELD CROPS

Crop	Disease	Product Application Rate, Timing & Frequency
<p>Root and Tuber Vegetables, including: 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>Black Root Rot, Early Blight <i>Alternaria</i> spp. Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight <i>Botrytis cinerea</i> Root Rot <i>Pythium</i> spp. Soft Rot, Angular Leaf Spot, Bacterial Soft Rot <i>Erwinia</i> spp. Root Rot, Bottom / Stem Rot <i>Rhizoctonia solani</i> Fusarium solani</p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>Tropical and Subtropical Fruits, Inedible Peel (Except Banana, Passionfruit and Plantain), including: Mango, Papaya, Avocado and Pineapples.</p> <p>Coffee</p>	<p>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 <i>Fusarium oxysporum</i></p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters 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>Banana and Plantain</p>	<p>Black Sigatoka <i>Mycosphaerella</i> spp.</p>	<p>32-96 fluid oz. per Acre 2.33-7.00 liters per Hectare</p> <p>Begin applications when leaves first appear and repeat every 7 days. For improved disease control, Companion® Maxx Liquid Biological Fungicide can be tank mixed with oil or other registered fungicides for control of Black Sigatoka.</p> <p>Apply through standard spray equipment with no less than 50 gal. water per Acre.</p>

APPLICATIONS ON GRASSES

Crop	Disease	Product Application Rate, Timing & Frequency
Grasses Grown for Seed, Sod Production and Pasture and Forage Grasses	Anthracnose <i>Colletotrichum graminicola</i> Brown Patch <i>Rhizoctonia</i> spp. Dollar Spot <i>Sclerotinia</i> Summer Patch <i>Magnaporthe poae</i> Fusarium Patch <i>Fusarium nivale</i> Pythium <i>Pythium</i> spp.	32-96 fluid oz. per Acre 2.33-7.00 liters 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 Liquid Biological Fungicide with sufficient amount of water to cover treated area. Apply direct sprays to provide thorough coverage of crop canopy to run off. Begin application for disease suppression when seedlings emerge or at time of transplanting. Companion® Maxx Liquid Biological Fungicide can be mixed or rotated with other fungicides to improve efficacy and reduce resistance. Apply by ground spray equipment, or chemigation. Companion® Maxx Liquid Biological Fungicide can be applied up to and including the day of harvest.

- 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.
- 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.
- Dip bare-root transplant soak in the solution of Companion® Maxx Liquid Biological Fungicide. Mix 4 fl. oz. to 8 fl. oz. of in 100 gallons of water and mix well. Submerge transplant in mix for 1 – 5 minutes and plant immediately. The whole transplant can be dipped, if desired. Companion® Maxx Liquid Biological Fungicide can be used in a tank mix or rotational program with other registered products.
- Plug Drench / Dip: Mix 4 fl. oz. to 8 fl. oz. in 100 gallons of water. Thoroughly mix in water. Soil drench plug trays, transplants in flats or pots in the greenhouse or nursery any time prior to transplanting. Submerge in mix for 30 seconds. The whole transplant or 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 Liquid Biological Fungicide is in the root zone and not lost to deep percolation. Begin applications when conditions first become favorable for disease development.

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 application equipment.

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

Fluid oz./Acre	10 inches	20 inches	30 inches	40 inches	50 inches
16	5	10	15	20	24
24	7	15	22	29	37
32	10	20	29	39	49
54	17	33	50	66	83
64	20	39	59	78	98

Hydroponics Systems			
Diseases	Crop	Product Rates	Frequency & Notes
<p><i>Alternaria spp.</i> - Early Blight, Leaf Spot</p> <p><i>Aspergillus niger</i> - Black Mold</p> <p><i>Botrytis cinerea</i> - Blight, Bud Rot, Crown Rot, Damping-Off, Leaf Blight, Grey Mold</p> <p><i>Didymella bryoniae</i> - Gummy Stem Blight</p> <p><i>Erysiphe spp.</i> - Powdery Mildew</p> <p><i>Fusarium spp.</i> - Bacterial Blight, Basal Rot, Damping-Off, Pink Root, Root Rot, Stem Canker, Wilt, Head Blight</p> <p><i>Phytophthora spp.</i> - Brown Rot, Crown Rot, Foot Rot, Late Blight, Leaf Blight, Leaf Rot, Leaf Spot, Root Rot</p> <p><i>Pythium spp.</i> - Black Rot, Damping-Off, Root Rot</p> <p><i>Rhizoctonia spp.</i> - Borrom Rot, Damping Off, Head Wilt</p> <p><i>Sclerotinia spp.</i> - Blight</p> <p><i>Verticillium spp.</i> - Wilt</p> <p><i>Xanthomonas spp.</i> - Bacterial Leaf Spot</p>	<p>Seed Treatment</p>	<p>Mix 4 fl. oz. in 1 gallon of water (125 ml in 4 liters of water)</p>	<p>Soak seeds/plugs with Companion® Maxx Liquid Biological Fungicide before placing them in growing trays.</p> <p>Do not use treated seed for food or feed purposes or for processing into oil. Treat only those seeds needed for immediate use.</p>
	<p>Herbs and Leafy Crops, Tomatoes and Fruiting Vegetables</p>	<p>Charging Rate: 1 fl. oz. per 30 gallons of water in nutrient tank (30 ml per 120 liters of water)</p> <p>Recharging Rate: 1 fl. oz. per 50 gallons of water. (30 ml per 200 liters of water)</p>	<p>Apply at time of placement in trays. Run through system.</p> <p>Replenish every time water is added or every 5 – 7 days.</p>

Growing Systems		
Type of System	Product Rates	Frequency & Notes
Closed Re-circulating System for Ebb and Flow in rock wool and peat / perlite mixtures, and Nutrient Film Technique	Charging Rate: Mix 1 fl. oz. per 30 gallons water. (30 ml / 120 liters) Recharging Rate: 1 fl. oz. per 50 gallons of water. (30 ml per 200 liters water)	Apply Companion® Maxx Liquid Biological Fungicide after each water change. Clean mix tank weekly. Pre-soak transplants in same solution mix.
Open Systems	Mix 16 fl. oz. per 100 gallons of nutrient mix (500 ml / 400 liters). For smaller volumes mix 1 tsp. per gallon.	Apply Companion® Maxx Liquid Biological Fungicide at the end of the watering cycle so that it stays in the system longer. Repeat the application by checking the quality of the roots.
Soilless Mix Hydro Gardens (Aggregate Systems), Trickle Feed Method and Soil Gardens For peat moss, perlite, vermiculite, sand, gravel, clay pebbles, foam chips and rockwool medias.	Mix 16 fl. oz. per 100 gallons of nutrient mix (500 ml / 400 liters).	Apply by checking the quality of the roots. Apply Companion® Maxx Liquid Biological Fungicide at the end of the watering cycle so that it stays in the system longer.

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 ≤ 5 gallons)

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

(For containers >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 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 if available or reconditioning if appropriate, 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 absence 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 from 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.