2-3-2

COMPANION® LIQUID BIOLOGICAL FUNGICIDE

Master Label

Sublabel A: Greenhouse, Nursery and Ornamental Crops
Sublabel B: Turf & Professional Landscape Use
Sublabel C: Agricultural Use
Sublabel D: Hydroponics
Sublabel E: Home & Garden Use

EPA Registration No. 71065-3

ACCEPTED

NOV 0 2 2011

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 71065-3

Bacillus subtilis GB03

Sublabel A: Greenhouse, Nursery and Ornamental Crops

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COMPANION® LIQUID BIOLOGICAL FUNGICIDE

- **Liquid Biological Fungicide**
- **For Greenhouse, Nursery and Ornamental Crops**
- **For Prevention, Control and Suppression of Soil and Foliar Diseases**
- **Activates ISR (Induced Systemic Resistance) in Plants**

Active Ingredient:
Bacillus subtilis GB03*.....00.03%
Other Ingredients:.....99.97%
Total:.....100.00%
*Not less than 5.5 X 10^{10} Colony Forming Units (CFU) per gallon

Guaranteed Analysis:
Total Nitrogen (N) 2%
2% Water Insoluble Nitrogen
Available Phosphate (P_2O_5)..... 3%
Soluble Potash (K_2O)..... 1%
Calcium (Ca)..... 1%
Magnesium (Mg)..... 0.5%
Derived From: Concentrated Fermented Plant Extracts

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
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.	

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

Another quality product from:

Growth Products, Ltd. 80 Lafayette Avenue White Plains, NY 10603 USA Questions? Call toll free (800) 648-7626 www.growthproducts.com	Net Contents: 1 Quart (Net Contents: 1 Gallon) (Net Contents: 2.5 Gallons) (Net Contents: 5 Gallons) (Net Contents: 30 Gallons) (Net Contents: 55 Gallons) (Net Contents: 275 Gallons)

EPA Registration No. 71065-3 EPA Establishment No. 71065-NY-001
(Lot Code / Batch No. _____)
Growth Products® (logo) and Companion® are Registered Trademarks of Growth Products, Ltd.
Information regarding the contents and levels of metals in this product is available on the internet at http://www.aapfco.org/metals.htm

PRECAUTIONARY STATEMENTS

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

Personal Protective Equipment (PPE):
Applicators and other handlers must wear:

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

Mixer/loaders and applicators must wear a dust/mist-filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handing this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: Do not apply to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

DIRECTIONS FOR USE

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), notification to workers, and Restricted-Entry Interval. 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). There is a REI of four (4) hours for this product. 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 over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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.

GENERAL INFORMATION
GREENHOUSE, NURSERY AND ORNAMENTAL CROPS

- **Use On Greenhouse and Nursery Crops Including Annuals, Perennials, Woody Ornamentals, Flowering Shrubs, Tropical Plants, Palms, Herbs, and Fruit and Nut Trees**
- **For Prevention, Control and Suppression of Root and Foliar Diseases**
- **Activates the Plant's Defense / Immune System (Induced Systemic Resistance [ISR])**
- **A Rhizosphere Bacterium**
- **Quickly Establishes Beneficial Colonies on Roots and Leaves**
- **Stimulates Healthier Roots and Accelerates Plant Growth**
- **Antagonistic to Blue-Green Algae (Cyanobacteria)**

Product Description:
Companion® Liquid Biological Fungicide is a broad-spectrum biological fungicide for the prevention, control and suppression of soil borne and foliar diseases on greenhouse and all outdoor nursery crops. Companion® Liquid Biological Fungicide contains the active ingredient *Bacillus subtilis* GB03 which is a rhizosphere bacterium that quickly establishes beneficial colonies on the plant's roots and leaves. It stimulates healthier roots, accelerates plant growth and activates the defense system of plants. Companion® Liquid Biological Fungicide is most effective when applied prior to the onset of disease. Use Companion® Liquid Biological Fungicide in combination and/or rotation with chemical fungicides to enhance disease control.

TABLE 1 – DISEASE LIST

Black Root Rot, Early Blight	**Late Blight, Blackeye**
Aspergillus spp.	*Phytophthora spp.*
Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight	**Wilt**
Alternaria spp.	*Fusarium oxysporum*
Gray Mold, Blight	**Root Rot, Bottom / Stem Rot**
Botrytis cinerea	*Rhizoctonia solani*
Root Rot	**Blight**
Pythium spp.	*Sclerotinia minor*
Powdery Mildew	**Bacterial Leaf spot**
Golovinomyces cichoracearum, formerly called Erysiphe cichoracearum	*Xanthomonas campestris*
Podosphaera xanthii, formerly called Sphaerotheca fuliginea).	

Modes of Action:
Companion® Liquid Biological Fungicide has multiple modes of action in preventing, controlling and suppressing plant diseases. It produces a broad-spectrum antibiotic (Iturin) that disrupts pathogen cell-wall formation. It is a competitive and fast colonizing rhizosphere bacterium, which occupies the plant's root hairs or leaf surfaces and prevents the growth and antagonistic effects of soil borne and foliar pathogens. The active ingredient is known to stimulate phytohormones, which trigger the plant's systemic resistance to disease ISR (Induced Systemic Resistance), the defense mechanisms of the plant for prolonged periods of time. It is non-selective to plant materials.

PGPR (Plant Growth-Promoting Rhizobacteria):
Companion® Liquid Biological Fungicide is classified as a Plant Growth-Promoting Rhizobacteria (PGPR). PGPR are free-living bacteria that have beneficial effects on plants as they enhance seed emergence, rooting, and stimulate growth.

INTEGRATED PEST (DISEASE) MANAGEMENT (IPM)

Companion® Liquid Biological Fungicide is an important tool in sound disease management whenever fungicide use is necessary. Apply Companion® 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

Companion® Liquid Biological Fungicide is an important tool to prevent the development of resistant pathogens that often occur with chemical fungicide products. Companion® Liquid Biological Fungicide's multiple and unique modes of action inhibit the pathogen's ability to develop resistance. Use Companion® Liquid Biological Fungicide in combination with lower rates of chemical fungicide for improved efficacy and/or in rotation with chemical fungicides to reduce chemical applications.

PREHARVEST INTERVAL – AGRICULTURAL USE

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

MIXING INSTRUCTIONS

Tank Mixing:
SHAKE WELL before use and before mixing with water. Companion® Liquid Biological Fungicide must be diluted with water prior to use. It can be used in all commonly used spray and injection equipment. Special care should be taken when tank mixing. Clean tanks before use. Add water to 3/4 level of the tank. Add specific amount of Companion® Liquid Biological Fungicide to the tank. Mix thoroughly. Maintain agitation while spraying. DO NOT let stand overnight.

Compatibility:
Companion® Liquid Biological Fungicide is compatible with most high quality fertilizers, micronutrients, organic materials, wetting agents, surfactants, fungicides, herbicides and insecticides. Companion® Liquid Biological Fungicide can also be mixed and applied with Contact and Systemic Fungicides. 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. Apply all of tank mix solution the same day to assure viability of spores. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Consult your Growth Products representative for more information on Companion® Liquid Biological Fungicide compatibility.

APPLICATION INSTRUCTIONS

Irrigation Systems:
Since Companion® Liquid Biological Fungicide is a homogenous solution that is 100% miscible in water, it may be applied through all types of irrigation systems (such as overhead boom and mist-type systems), sprinklers (such as impact or micro-sprinklers), pressurized drench or drip–trickle systems, micro-irrigation (such as spaghetti-tube or individual tube irrigation), hand-held calibrated irrigation equipment (such as hand-held wand with injector), hydroponics, continuous feed, and ebb and flood systems.

Direct Siphon:
Companion® Liquid Biological Fungicide can be siphoned directly from the original container. This can be done with a variable proportioner that can be set to high ratios. This eliminates the need to mix stock concentrates or stir the mixing barrels. For 100 PPM set injector to 1:800.

USE SITES

Horticultural and Nursery Applications:
Use in greenhouses, glass houses, shade houses, enclosed nurseries, and outdoor field grown and container nursery plants, including perennials, ornamentals, trees, seedlings, ornamental grasses, all types of hardwood and softwood cuttings, palms, foliage plants, cut flowers, cut foliage and ferns, seedlings, plugs, bench or bed grown plants, vegetables, and herbs. Use as a drench at the time of seeding and transplanting, as well as a periodic soil drench or spray throughout the plant's lifecycle for the prevention, control and suppression of important plant diseases.

Horticultural and Nursery Crops		
Crop	**Product Rates**	**Frequency & Notes**
For Flowering Plants including Bedding Plants, Perennials, and Cut Flowers	**Drench Rate:** 16 fl. oz. per 100 gallons water **Foliar Rate:** 32 fl. oz. per 100 gallons water **Field Grown:** 32 – 64 fl. oz. per acre	To use as a preventative program, make first application at time of seeding or germination. Repeat application every 14 – 28 days.
Propagation of Soft-wood and Hard-wood Cuttings	**Dip Rate:** Mix 1 –2 fl. oz. per gallon water	Dip basal end of cuttings individually or in bunches for 5 seconds at time of planting.
	Drench Rate: 16 fl. oz. per 100 gallons water	Use as a drench for general propagation and disease control. Apply every 14 - 28 days.
	Mist Propagation: 1 tsp. per 10 gallons water	Inject daily through system.
Foliage and Tropical Plants	**Drench Rate:** 16 fl. oz. per 100 gallons water **Foliar Rate:** 32 fl. oz. per 100 gallons water **Field Grown:** 32 – 64 fl. oz. per acre	To use as a preventative program, make first application at time of seed germination. Repeat application every 14 – 28 days.
Shade and Outdoor Nursery Crops, Containerized Trees, Woody Vines, Foliage, Palms	**Drench Rate:** 16 fl. oz. per 100 gallons water **Foliar Rate:** 32 fl. oz. per 100 gallons water **Field Grown:** 32 – 64 fl. oz. per acre	Apply through irrigation systems including drip, overhead, sprayer, sprinkler systems, ebb and flood.
Orchids	**Dip Rate:** Mix 1 –2 fl. oz. per gallon water	Use as a dip immediately before time of transplant.
	Drench Rate: 16 fl. oz. per 100 gallons water	Use as a drench for general propagation and disease control. Apply every 14- 28 days.
	Mist Propagation: 1 tsp. per 10 gallons water	Inject daily through system.
Field Grown Trees (including Fruit and Nut Trees), Shrubs and Ornamentals	**Field Grown:** 32 – 64 fl. oz. per acre	To use as a preventative program, apply every 14 – 28 days. Can be applied through all types of irrigation systems including drip tape, overhead or sprayer.
Bare Root Transplants	**Dip Rate:** Mix 1 –2 fl. oz. per gallon water	Apply before cold storage and at time of removal from cold storage.
Vegetable Plug Production, including: Leafy, Fruiting and Cole Crops	**Drench Rate:** 16 fl. oz. per 100 gallons water	To use as a preventative program, make first application at time of seed germination or transplant. Repeat application

		every 14 – 28 days.
Herbs and Spices, including: Coriander, Basil, Chives, Dill, Rosemary, Sage & Mint	**Drench Rate:** 16 fl. oz. per 100 gallons water **Field Grown:** 32 – 64 fl. oz. per acre	Apply prior to seed germination and just prior to field transplant. (For hydroponically grown herbs, see Growing Systems Chart)
Bulbs, including: Caladium, Tulips, Amaryllis, Hyacinth	**Dip Rate:** Mix 1 –2 fl. oz. per gallon water **Drench Rate:** 16 fl. oz. per 100 gallons water **Field Grown:** 32 – 64 fl. oz. per acre	As a preventative disease control, use as a dip immediately before time of transplant or prior to cold storage. Repeat application every 14 – 28 days after planting.
Interiorscape: **For Foliage Plants, Palms, Seasonal Flowering Plants including Poinsettia, Chrysanthemums, Bromeliads.**	1 tsp per 1 gallon of water. For larger volumes, mix 1.6 fl. oz. per 10 gallons of water.	Begin application at time of installation and continue application once per month as a maintenance program.

Application as a soil drench in greenhouses, shade houses and nurseries:

Use Companion® Liquid Biological Fungicide on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, and on ornamentals grown for indoor and outdoor landscaping. Use as a drench during seeding, sizing up and when transplanting. Companion® Liquid Biological Fungicide is antagonistic to Blue-Green Algae (Cyanobacteria) that often grow in irrigation lines and stock tanks.

Set Injection Ratio to:		
1:100	**1:200**	**Frequency & Notes**
16 fl. oz. of Companion® Liquid Biological Fungicide per gallon of stock tank (160 fl. oz. per 100 gallons of stock tank)	32 fl. oz. of Companion® Liquid Biological Fungicide per gallon of stock tank (320 fl. oz. per 100 gallons of stock tank)	At the time of seeding, sizing up or transplant use as a drench until thoroughly soaked.

Applications by Growing System:

Use Companion® Liquid Biological Fungicide in hydroponics systems to prevent, control, and suppress a broad variety of plant diseases. It will also improve the plant's vigor and yield. Companion® Liquid Biological Fungicide will encourage and maintain healthy white roots and increase root mass. The active ingredient will flourish in this environment, where it quickly adapts and establishes itself on the root systems of plants. Companion® Liquid Biological Fungicide is easily injected through all systems either by proportioners or through standard fertilizer injectors.

Growing Systems		
System	**Rate**	**Frequency & Notes**
Closed Re-circulating System for Ebb and Flow in Rockwool and Peat Moss, Perlite Mixtures, and Ebb and Flood.	**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® 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).	Apply the solution with Companion® Liquid Biological Fungicide at the end of the watering cycle so that it stays in the system longer. Repeat the application every 14 to 28 days.
Constant Feed and Mist Systems	Apply 1 fl. oz. in 100 gallons of water.	Inject daily through system.
Soilless Mix Hydro Gardens (Aggregate Systems), Aeroponics, Nutrient Film Technique, Trickle Feed Method and Soil Gardens with Peat Moss, Perlite Mixtures, 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 every 14 – 28 days. Apply the solution with Companion® Liquid Biological Fungicide at the end of the watering cycle so that it stays in system longer.
Hydroponics Systems for Herbs and Leafy Crops, Tomatoes and Fruiting Vegetables	**Seed or Plugs** Mix 4 fl. oz. in 1 gallon of water	Soak seeds/plugs with a solution before placing them in growing trays.
	Charging Rate: 1 fl. oz. per 30 gallons water in nutrient tank (30 ml / 120 liters)	Apply at time of placement in trays. Run through system.
	Recharging Rate: 1 fl. oz. per 50 gallons of water. (30 ml per 200 liters water)	Replenish every time water is added or every 5 – 7 days.

Tissue Cultured Plantlets (Microprogation):

Tissue cultured plantlets require special attention. They must acclimate from sterile lab conditions to the greenhouse environment. At this stage of transplant the plants are as close to sterile as possible and, as such, contain no beneficial bacteria. Once a tray is planted in a peat-based medium, it is important to immediately apply Companion® Liquid Biological Fungicide. This will protect the new root structure from disease and improve rooting.

Tissue Culture (Microprogation)		
Crop	**Rate**	**Frequency & Notes**
Plantlets	1 tsp. per 1 gallon of water (5 ml per 4 L water). For larger volumes mix 1.6 fl. oz. per 10 gallons water.	At time of transplant drench plug trays until thoroughly soaked. Repeat every 7 – 14 days through entire plug stage.

CHEMIGATION

General Requirements -

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

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 which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being 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 which 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 which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

(For containers ≤ 5 gallons)

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

(For containers ≥30 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (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 sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Notice - Read carefully conditions of sale and limited warranty statement.

As its sole express warranty, Growth Products, Ltd., warrants that this product conforms to the microbial description on the label and is reasonably fit for purposes stated on the label only when used in accordance with directions and instructions specified on the label, subject to the inherent risks set forth above. To the extent consistent with applicable law, Growth Products, Ltd. neither makes nor authorizes any of its distributors to make any warranty of fitness or merchantability, guaranty or representation, express or implied, concerning this material. Buyer assumes the responsibility to handle, use and store this product in accordance with the safety instructions and use directions contained on the label. To the extent

consistent with applicable law, the Buyer/User purchases this product to the foregoing Conditions of Sale and Warranty which may be varied only by a written agreement signed by a duly authorized representative of Growth Products, Ltd., and if these terms are not acceptable, return all product to the place of purchase, unopened for a full refund.

Sublabel B: Turf and Professional Landscape Use

2-3-2

COMPANION® LIQUID BIOLOGICAL FUNGICIDE

- Liquid Biological Fungicide for Turf and Professional Landscape Use
- For Prevention, Control and Suppression of Soil and Foliar Diseases
- Activates ISR (Induced Systemic Resistance) in Plants

Active Ingredient:
Bacillus subtilis GB03*.....00.03%
Other Ingredients: 99.97%
Total:.....100.00%
*Not less than 5.5 X 10^{10} Colony Forming Units (CFU) per gallon

Guaranteed Analysis:
Total Nitrogen (N)..... 2%
2% Water Insoluble Nitrogen
Available Phosphate (P_2O_5) 3%
Soluble Potash (K_2O) 1%
Calcium (Ca)..... 1%
Magnesium (Mg)..... 0.5%
Derived From: Concentrated Fermented Plant Extracts

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
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Personal Protective Equipment (PPE):
Applicators and other handlers must wear:

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

Mixer/loaders and applicators must wear a dust/mist-filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handing this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: Do not apply to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

DIRECTIONS FOR USE

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), notification to workers, and Restricted-Entry Interval. 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). There is a REI of four (4) hours for this product. 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 over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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.

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.

GENERAL INFORMATION – TURF AND PROFESSIONAL LANDSCAPE USE

- **Use On Greens, Tees, Fairways and Roughs, Sports Turf, Parks, Cemeteries, (Residential) Lawns, Hydroseeding, Sod Farms and Seed Production Grasses**
- **Use on Annuals, Perennials, Woody Ornamentals, Flowering Shrubs, Tropicals, Palms, Herbs and Fruit and Nut Trees**
- **Use on all Interiorscape Plantings**
- **For Prevention, Control and Suppression of Root and Foliar Diseases**
- **Activates the Plant's Defense / Immune System (Induced Systemic Resistance [ISR])**
- **A Rhizosphere Bacterium**
- **Quickly Establishes Beneficial Colonies on Roots and Leaves**
- **Improves Nutrient Uptake**
- **Stimulates Healthier Roots and Accelerates Plant Growth**

Product Description:

Companion® Liquid Biological Fungicide is a broad-spectrum biological fungicide used for the prevention, control, and suppression of a broad range of important soil borne and foliar diseases. Companion® Liquid Biological Fungicide contains the active ingredient *Bacillus subtilis* GB03 for the control of Anthracnose (*Colletotrichum graminicola*), Brown Patch (*Rhizoctonia* spp.), Dollar Spot (*Sclerotinia*), Summer Patch (*Magnaporthe poae*), Fusarium Patch (*Fusarium nivale*), Pythium (*Pythium* spp.) and Root Rot (*Phytophthora*). Companion® Liquid Biological Fungicide acts as a food source to help the *Bacillus subtilis* multiply and establish colonies. *Bacillus subtilis* GB03 is a gram-positive (spore-forming) soil bacterium.

Companion® Liquid Biological Fungicide is most effective when applied prior to the onset of disease. Use Companion® Liquid Biological Fungicide in combination and rotation with chemical fungicides to enhance disease control. To ensure optimal results in the field, it is important to store, handle, and apply the product in an appropriate manner.

Modes of Action:

Companion® Liquid Biological Fungicide has multiple modes of action in preventing and controlling plant diseases. It produces a broad-spectrum antibiotic (Iturin) that disrupts pathogen cell-wall formation. It is a competitive and fast colonizing rhizosphere bacterium, which occupies the plant's root hairs and prevents the growth and antagonistic effects of soil borne pathogens. Companion® Liquid Biological Fungicide is known to stimulate phytohormones, which trigger the plant's systemic resistance to disease ISR (Induced Systemic Resistance), the defense mechanisms of the plant for prolonged periods of time. It is non-selective to plant materials.

PGPR (Plant Growth-Promoting Rhizobacteria):

Bacillus subtilis GB03 is classified as a Plant Growth-Promoting Rhizobacteria (PGPR). PGPR are free-living bacteria that have beneficial effects on plants as they enhance rooting and stimulate growth.

INTEGRATED PEST (DISEASE) MANAGEMENT (IPM)

Companion® Liquid Biological Fungicide is an important tool in sound disease management whenever fungicide use is necessary. Apply Companion® 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

Companion® Liquid Biological Fungicide is an important tool to prevent the development of resistant pathogens that often occurs with chemical fungicide products. Companion® Liquid Biological Fungicide's multiple and unique modes of action inhibit the pathogen's ability to develop resistance. Use Companion® Liquid Biological Fungicide in combination with lower rates of chemical fungicide for improved efficacy and /or in rotation with chemical fungicides to reduce chemical applications.

MIXING INSTRUCTIONS

Tank Mixing:
SHAKE WELL before use and before mixing with water. Companion® Liquid Biological Fungicide must be diluted with water prior to use. It can be used in all commonly used spray and injection equipment. Take special care when tank mixing. Clean tanks before use. Add water to 3/4 level of the tank. Add specific amount of Companion® Liquid Biological Fungicide to the tank. Mix thoroughly. Maintain agitation while spraying. DO NOT let stand overnight. Companion® Liquid Biological Fungicide can be tank mixed and applied with both systemic and contact fungicides as part of a regular growth and maintenance program.

Compatibility:
Companion® Liquid Biological Fungicide is compatible with most high quality fertilizers, micronutrients, organic materials, wetting agents, and surfactants. Companion® Liquid Biological Fungicide can also be mixed and applied with Contact and Systemic Fungicides. 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. Apply all of tank mix solution the same day to assure viability of spores. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Consult your Growth Products representative for more information on Companion® Liquid Biological Fungicide compatibility.

TURF USE SITES

Turf Applications:
Use on all cool and warm season turf grass varieties including Bentgrass, Bluegrass, Bermudagrass (common and hybrid), Fescue, Ryegrass, St. Augustine, Zoyzia, Paspalum and Poa Annua. Use on Greens, Tees, Fairways and Roughs, Sports Turf, Parks, Cemeteries, (Residential) Lawns, Sod Farms, Seed Production Grasses and all ornamental grass varieties.

Application Timing:
Apply Companion® Liquid Biological Fungicide throughout the growing season on all types of soils and turfgrass varieties. Apply when ground temperature has reached 45° F (7° C) or above until late fall prior to light frost. Begin applications prior to when environmental conditions are conducive to disease development and throughout periods of disease and stress.

TURF APPLICATIONS				
Target Diseases	**Use Rate (fl. oz. product per 1,000 sq. ft.)**	**Application Interval**	**Spray Rates**	**Remarks**
Anthracnose *(Colletotrichum graminicola)* **Brown Patch** *(Rhizoctonia spp.)* **Dollar Spot** *(Sclerotinia)* **Summer Patch** *(Magnaporthe poae)* **Fusarium Patch** *(Fusarium nivale)* **Pythium Blight** **Pythium Root Rot** **Pythium Crown Rot** *(Pythium spp.)*	4 – 6 fl. oz. (118 – 177 ml)	14 – 28 days	**Root Diseases:** Spray at a rate of 2 - 4 gallons (7 ½ - 15 liters per 100 m^2) of tank mix per 1,000 sq. ft to assure soil penetration. **Foliar Diseases:** Spray at a rate of 1-2 gallons (4 – 7 ½ liters per 100 m^2) of tank mix per 1,000 sq. ft to provide thorough coverage.	Begin applications prior to when conditions are conducive to disease development. Continue applications throughout periods of disease and stress.

TURF ESTABLISHMENT APPLICATIONS FOR PATHOGEN/DISEASE CONTROL		
Application	**Rate**	**Frequency**
New Seeding, Over Seeding, Hydro Seeding	4 - 6 fl. oz. per 1000 sq. ft. (118 ml- 177ml per 100 m^2)	Apply at time of seed germination. Repeat every 14 days during grow-in period.
Sod Installation	4 - 6 fl. oz. per 1000 sq. ft. (118 ml- 177ml per 100 m^2)	Apply at time of installation and repeat in 14 - 28 days. Continue during disease and stress period.
Sod Production	1 – 2 gallons per acre of sod (10 – 20 liters per hectare of sod)	Begin applications at time of seeding, plugging, or newly cut ribbons. Continue monthly during disease and stress periods.

FOR PROFESSIONAL LANDSCAPE USE

Applications:

Use Companion® Liquid Biological Fungicide on all ornamentals, landscape plants, trees, shrubs, annuals, perennials, ground covers, tropical plants, outdoors and interiorscapes for control of a broad spectrum of plant diseases.

Application Timing:

Apply Companion® Liquid Biological Fungicide throughout the growing season on all types of soils, turfgrass, lawns, woody ornamentals, trees, perennials and other landscape and horticultural materials. Apply when ground temperature has reached 45° F (7° C) or above until late fall prior to light frost. Begin applications prior to when environmental conditions are conducive to disease development and throughout periods of disease and stress.

ORNAMENTAL APPLICATIONS			
Plant Material	**Target Diseases**	**Product Rate**	**Intervals**
All Types of Ornamentals, Trees, Shrubs, And Flowering Plants Annuals Perennials Bedding Plants Ground Covers Potted Flowers Foliage Plants Woody Ornamentals Deciduous Trees & Shrubs Evergreen Trees & Shrubs Tropical Foliage Palms Container Grown Plants *(Indoors, Outdoors, Fields, Landscape areas)*	**Anthracnose** *(Colletotrichum graminicola)* **Stem and Root Rot** **Aerial blight** *(Rhizoctonia spp.)* *(Sclerotinia)* **Damping off** *(Fusarium nivale)* **Pythium Blight** **Pythium Root Rot** **Pythium Crown Rot** *(Pythium spp.)* **Stem & Root Rot** *(Phytophthora)* **Powdery Mildew** (*Golovinomyces cichoracearum*, formerly called *Erysiphe cichoracearum*)	**Soil Drench:** 16 - 32 fl. oz. per 100 gallons of water (0.5 – 1 liter per 400 liters of water). Thoroughly drench soil around plug, planting hole, tree canopy, root ball, or container. For smaller volumes mix 1- 2 tsp. per gallon water (5 – 10 ml per 4 liters water). **Foliar Spray:** 1 - 2 quarts per 100 gallons of water (1 - 2 liters per 400 liters of water). Thoroughly spray foliage until run-off. For smaller volumes mix 2- 4 tsp. per gallon water (10 - 20 ml per 4 liters water). **Interiorscape Plants:** 1 tsp. per gallon of water (5 ml per 4 liters of water). For larger volumes 1.6 fl. oz. per 10 gallons water (45 ml per 40 liters water). Thoroughly drench plants.	**New Plantings and Transplants:** Apply at time of planting to prevent disease. Reapply 14 – 28 days through growing season. **Established Plantings:** Apply prior to disease pressure at 14-28 day intervals. While disease conditions persist, re-treat at 7-14 day intervals.

Tree Root Injection DBH Method		
Application Type	**Rate**	**Frequency**
Maintenance	1 qt. per 100 gallons water	Apply 5 gallons (18-19 liters) of tank mix per inch (25 mm) DBH starting approximately 3 feet (1 meter) from base of tree and in grid pattern at 2 to 2.5 feet (0.61-0.76 meter) intervals. Apply as soon as stress from heat/drought is observed or prior to when the disease becomes evident. Apply at monthly intervals.
Stress Correction	1 – 2 qt. per 100 gallons water	

CHEMIGATION

General Requirements -

1) Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
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 which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being 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 which 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 which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal:
(For containers ≤ 5 gallons)
Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(*For containers ≥30 gallons*)
Non-refillable container. Do not reuse or refill this container. Triple rinse (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 sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Notice - Read carefully conditions of sale and limited warranty statement.

As its sole express warranty, Growth Products, Ltd., warrants that this product conforms to the microbial description on the label and is reasonably fit for purposes stated on the label only when used in accordance with directions and instructions specified on the label, subject to the inherent risks set forth above. To the extent consistent with applicable law, Growth Products, Ltd. neither makes nor authorizes any of its distributors to make any warranty of fitness or merchantability, guaranty or representation, express or implied, concerning this material. Buyer assumes the responsibility to handle, use and store this product in accordance with the safety instructions and use directions contained on the label. To the extent consistent with applicable law, the Buyer/User purchases this product to the foregoing Conditions of Sale and Warranty which may be varied only by a written agreement signed by a duly authorized representative of Growth Products, Ltd., and if these terms are not acceptable, return all product to the place of purchase, unopened for a full refund.

Sublabel C: Agricultural Use

2-3-2

COMPANION® LIQUID BIOLOGICAL FUNGICIDE

- **Liquid Biological Fungicide for Agricultural Use**
- **For Prevention, Control and Suppression of Soil and Foliar Diseases**
- **Activates ISR (Induced Systemic Resistance) in Plants**

Active Ingredient:

Bacillus subtilis GB03*	00.03%
Other Ingredients:	99.97%
Total:	100.00%

*Not less than 5.5 X 10^{10} Colony Forming Units (CFU) per gallon

Guaranteed Analysis:

Total Nitrogen (N)	2%
2% Water Insoluble Nitrogen	
Available Phosphate (P_2O_5)	3%
Soluble Potash (K_2O)	1%
Calcium (Ca)	1%
Magnesium (Mg)	0.5%

Derived From: Concentrated Fermented Plant Extracts

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
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.	

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

Another quality product from:

Growth Products, Ltd. 80 Lafayette Avenue White Plains, NY 10603 USA Questions? Call toll free (800) 648-7626 www.growthproducts.com	Net Contents: 1 Quart (Net Contents: 1 Gallon) (Net Contents: 2.5 Gallons) (Net Contents: 5 Gallons) (Net Contents: 30 Gallons) (Net Contents: 55 Gallons) (Net Contents: 275 Gallons)

EPA Registration No. 71065-3 EPA Establishment No. 71065-NY-001

(Lot Code / Batch No. _____)

Growth Products® (logo) and Companion® are Registered Trademarks of Growth Products, Ltd.

Information regarding the contents and levels of metals in this product is available on the internet at http://www.aapfco.org/metals.htm

PRECAUTIONARY STATEMENTS

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

Personal Protective Equipment (PPE):
Applicators and other handlers must wear:

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

Mixer/loaders and applicators must wear a dust/mist-filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handing this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: Do not apply to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

DIRECTIONS FOR USE

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), notification to workers, and Restricted-Entry Interval. 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). There is a REI of four (4) hours for this product. 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 over long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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.

- **Use On Food and Forage Crops**
- **For Prevention, Control and Suppression of Root and Foliar Diseases**
- **Activates the Plant's Defense / Immune System (Induced Systemic Resistance [ISR])**
- **A Rhizosphere Bacterium**
- **Quickly Establishes Beneficial Colonies on Roots and Leaves**
- **Improves Nutrient Uptake**
- **Stimulates Healthier Roots and Accelerates Plant Growth**

Product Description:

Companion® Liquid Biological Fungicide is a broad-spectrum biological fungicide for the prevention, control and suppression of soil borne and foliar diseases on all agricultural crops. Companion® Liquid Biological Fungicide contains the active ingredient *Bacillus subtilis* GB03 which is a rhizosphere bacterium that quickly establishes beneficial colonies on the plant's roots and leaves. It stimulates healthier roots, accelerates plant growth and activates the defense system of the plant. Companion® Liquid Biological Fungicide is non-selective. Companion® Liquid Biological Fungicide is most effective when applied prior to the onset of disease. Use Companion® Liquid Biological Fungicide in combination and/or rotation with chemical fungicides to enhance disease control. For use on all outdoor field grown food crops including vegetables, herbs, small fruits, berries and fruit and nut trees. Also for use in greenhouse plug production and hydroponics operations.

Modes of Action:

Companion® Liquid Biological Fungicide has multiple modes of action in preventing, controlling and suppressing plant diseases. It produces a broad-spectrum antibiotic (Iturin) that disrupts pathogen cell-wall formation. It is a competitive and fast colonizing rhizosphere bacterium, which occupies the plant's root hairs and leaves and prevents the growth and antagonistic effects of soil borne and foliar pathogens. GB03 is known to stimulate phytohormones, which trigger the plant's systemic resistance to disease (Induced Systemic Resistance), the defense mechanisms of the plant for prolonged periods of time. It is non-selective to plant materials.

PGPR (Plant Growth-Promoting Rhizobacteria):

Bacillus subtilis GB03 is classified as a Plant Growth-Promoting Rhizobacteria (PGPR). 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

Alternaria spp.
- Black Root Rot, Early Blight

Aspergillus spp.

Botrytis cinerea
- Crown Rot, Damping-Off Fungus, Gray Mold, Leaf Blight

Colletotrichum orbiculare
- Anthracnose

Colletotrichum spp.
- Anthracnose

Didymella bryoniae
- Gummy Stem Blight

Erwinia spp.
- Soft Rot

Phytophthora spp.
- Late Blight, Blackeye/Buckeye Rot in Tomatoes

Plasmodiophora brassicae
- Corky Root, Clubroot

***Podosphaera xanthii* (formerly called *Sphaerotheca fuliginea*)**
- Powdery Mildew

Pseudomonas syringae
- Angular Leaf Spot

Pythium aphanidermatum
- Root Rot

Pythium irregulare
- Root Rot

Pythium spp.

Erwinia carotovora - Cucurbit Wilting, Angular Leaf Spot, Bacterial Soft Rot ***Erwinia tracheiphila*** - Cucurbit Wilting, Angular Leaf Spot, Bacterial Soft Rot ***Golovinomyces cichoracearum* (formerly called *Erysiphe cichoracearum*)** - Powdery Mildew ***Fusarium oxysporum*** - Wilt ***Fusarium solani*** ***Phytophthora* aerial blight** - Blight, Leafspot and Rot **Turf Diseases:** **Anthracnose** *(Colletotrichum graminicola)* **Brown Patch** *(Rhizoctonia spp.)* **Dollar Spot** *(Sclerotinia)* **Summer Patch** *(Magnaporthe poae)* **Fusarium Patch** *(Fusarium nivale)* **Pythium** *(Pythium spp.)*	- Root Rot ***Rhizoctonia solani*** - Root Rot, Bottom / Stem Rot ***Sclerospora gramincola*** - Downy Mildew ***Sclerotinia minor*** - Blight ***Sclerotinia minor*** - Lettuce Drop ***Uncinula necator*** - Powdery Mildew ***Xanthomonas campestris*** - Bacterial Leafspot ***Xanthomonas axonpodis*** - Citrus Canker

INTEGRATED PEST (DISEASE) MANAGEMENT (IPM)

Companion® Liquid Biological Fungicide is an important tool in sound disease management whenever fungicide use is necessary. Apply Companion® 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

Companion® Liquid Biological Fungicide is an important tool to prevent the development of resistant pathogens that often occurs with chemical fungicide products. Companion® Liquid Biological Fungicide's multiple and unique modes of action inhibits the pathogen's ability to develop resistance. Use Companion® Liquid Biological Fungicide in combination with lower rates of chemical fungicide for improved efficacy and /or in rotation with chemical fungicides to reduce chemical applications.

PREHARVEST INTERVAL – AGRICULTURAL USE

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

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

It is the responsibility of the applicator and grower to avoid spray drift. Do not spray when wind speed favors drift beyond the intended application area. The effects of equipment and weather factors will determine the potential drift. When states have more stringent regulations, they must be observed. Contact your State extension agent for spray drift prevention guidelines in your area.

APPLICATION INSTRUCTIONS / MIXING – AGRICULTURAL USE

Apply Companion® Liquid Biological Fungicide with all types of sprayer or sprinkler and drip irrigation systems used for making ground applications. Apply Companion® Liquid Biological Fungicide through irrigation systems, drip (trickle), fertigation, overhead spray and mist systems, continuous feed, closed ebb and flood and hydroponics systems.

Tank Mixing:

Special care must be taken when tank mixing.

1) SHAKE WELL before use and before mixing with water.
2) 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.
3) Companion® Liquid Biological Fungicide must be diluted with water prior to use. Determine the treatment rates as indicated in the directions for use and make proper dilutions.
4) Prepare a solution in the chemical tank by filling the tank to the ¾ level with the required water and then adding the specific amount of Companion® Liquid Biological Fungicide to the tank as required. Add the remaining water. Mix thoroughly. Maintain agitation while spraying.
5) Check pH of tank mix solution prior to adding Companion® Liquid Biological Fungicide. DO NOT mix into tank solution if pH is below 4 and above 9.
6) DO NOT let stand overnight.
7) Companion® Liquid Biological Fungicide can be applied in conjunction with most fertilizers and most pesticides. Check for Compatibility with other products.

Compatibility:

Companion® Liquid Biological Fungicide is compatible with most high quality fertilizers, micronutrients, organic materials, wetting agents, surfactants, most fungicides, herbicides and insecticides. Do NOT mix with copper based fungicides, concentrated acids including 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. Companion® Liquid 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 Growth Products representative for more information on Companion® Liquid Biological Fungicide compatibility with pesticides, surfactants and fertilizers.

AGRICULTURAL APPLICATIONS		
Crop	**Disease**	**Product Use Rate**
Berries, including: Blueberry, Blackberry, Raspberry, Strawberry	**Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Root Rot** *Pythium spp.* **Blight, Leafspot and Rot** *Phytophthora aerial blight* **Wilt** *Fusarium oxysporum*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Cuttings Dip Rate:** 1- 2 fl. oz. per gal. water (8-16 ml per liter water) **Banding:** 32 – 64 fl. oz. per 100 gal. water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Cole Crops, including: Broccoli, Cauliflower, Cabbage, Brussels Sprouts, Collards	**Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Corky Root, Clubroot** *Plasmodiophora brassicae* **Root Rot** *Pythium spp.* **Blight, Leafspot and Rot** *Phytophthora aerial blight* **Wilt** *Fusarium oxysporum*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Cuttings Dip Rate:** 1- 2 fl. oz. per gal. water (8-16 ml per liter water) **Banding:** 32 – 64 fl. oz. per 100 gal. water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Cucurbits, including: Cucumber, Cantaloupe, Squash, Pumpkin, Melons	**Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Gummy Stem Blight** *Didymella bryoniae* **Cucurbit Wilting, Soft Rot, Angular Leaf Spot, Bacterial Soft Rot** *Erwinia spp.* **Powdery Mildew** *Golovinomyces cichoracearum, formerly called Erysiphe cichoracearum, Podosphaera xanthii, formerly called Sphaerotheca fuliginea.* **Root Rot** *Pythium spp.*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Cuttings Dip Rate:** 1- 2 fl. oz. per gal. water (8-16 ml per liter water) **Banding:** 32 – 64 fl. oz. per 100 gal. water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare) *(For hydroponics rate, see Hydroponics Systems Table below)*

	Blight, Leafspot and Rot *Phytophthora aerial blight* **Wilt** *Fusarium oxysporum*	

Citrus, including: Grapefruit, Lemons, Limes, Oranges, Pomelo, Tangelo, Tangerines	**Brown Spot, Leaf Spot, Stem-end Rot, Black Rot** *Alternaria spp.* **Black Mold Rot** *Aspergillus spp.* **Anthracnose, Post Blossum Fruit Drop** *Colletotrichum graminicola* **Root Rot, Wilt** *Fusarium spp.* **Brown Rot, Foot Rot, Gummosis and Root Rot** *Phytophthora spp.* **Black Pit (fruit), Blast** *Pseudomonas syringae* **Damping-off, Root Rot** *Pythium spp.* **Areolate Leaf Spot** *Rhizoctonia solani* **Blight, Twig Blight, Fruit Rot, Root Rot** *Sclerotinia* **Bacterial Leafspot** *Xanthomonas campestris* **Citrus Canker** *Xanthomonas axonopodis*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal water (125 ml per 100 L water) **Cuttings Dip Rate:** 1- 2 fl. oz. per gal water (8-16 ml per liter water) **Banding:** 32 – 64 fl. oz. per 100 gal water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Grapes, including: Wine and Table Grapes	**Powdery Mildew** *Uncinula necator* **Damping-off, Root Rot** *Pythium spp.* **Crown and Root Rot** *Phytophthora spp., P. citricola, P. megasperma*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal water **Cuttings Dip Rate:** 1- 2 fl. oz. per gal water (8-16 ml per liter water) **Banding:** 32 – 64 fl. oz. per 100 gal water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Herbs and Spices, including: Coriander, Basil, Chives, Dill, Rosemary, Sage & Mint	**Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Root Rot** *Pythium spp.* **Blight, Leafspot and Rot** *Phytophthora aerial blight* **Wilt** *Fusarium oxysporum*	**Field Spray:** 32 – 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Cuttings Dip Rate:** 1- 2 fl. oz. per gal. water (8-16 ml per liter water) *(For hydroponics rate, see Hydroponics Systems Table*

		below)
Fruiting Vegetables, including: Peppers, Tomato, Eggplant, Okra, Tomatillo	*Aspergillus spp.* **Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Root Rot** *Pythium spp.* **Late Blight, Blackeye/Buckeye Rot in Tomatoes** *Phytophthora spp.* **Wilt** *Fusarium oxysporum* **Root Rot, Bottom / Stem Rot** *Rhizoctonia solani* **Blight** *Sclerotinia minor* **Bacterial Leafspot** *Xanthomonas campestris*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Cuttings Dip Rate:** 1- 2 fl. oz. per gal. water (8-16 ml per liter water) **Banding:** 32 – 64 fl. oz. per 100 gal. water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare) *(For hydroponics rate, see Hydroponics Systems Table below)*
Leafy Vegetables, including: Lettuce, Celery, Spinach, Parsley, Radicchio	**Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Root Rot** *Pythium spp.* **Powdery Mildew** *Golovinomyces cichoracearum* (formerly called *Erysiphe cichoracearum*), *Podosphaera xanthii* (formerly called *Sphaerotheca fuliginea*). **Blight, Leafspot and Rot** *Phytophthora aerial blight* **Root Rot, Bottom / Stem Rot** *Rhizoctonia solani* **Lettuce Drop** *Sclerotinia minor* **Wilt** *Fusarium oxysporum*	**Field:** 32 – 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Banding:** 32 – 54 fl. oz. per acre (250-500 ml per 100 L water) *(For hydroponics rate, see Hydroponics Systems Table below)*
Legumes, including: Beans, Green Beans, Snap Beans, Lentils, Peas	*Aspergillus spp.* **Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Root Rot**	**Field Spray:** 32 – 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Banding:**

	Pythium spp. **Blight, Leafspot and Rot** *Phytophthora aerial blight* **Root Rot, Bottom / Stem Rot** *Rhizoctonia solani* **Wilt** *Fusarium oxysporum* **Blight** *Sclerotinia minor* **Bacterial Blight/ Leafspot** *Xanthomonas campestris*	32 – 64 fl. oz. per acre (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Bulb Vegetables, including: Onions, Garlic, Shallots	**Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Root Rot** *Pythium spp.* **Blight, Leafspot and Rot** *Phytophthora aerial blight* **Blight** *Sclerotinia minor* **Bacterial Blight/ Leafspot** *Xanthomonas campestris* **Soft Rot, Angular Leaf Spot, Bacterial** *Erwinia spp.*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Banding:** 32 – 64 fl. oz. per 100 gal. water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Root / Tuber and Corm Vegetables, including: Carrot, Potato, Sweet Potato, Beets, Ginger, Radish, Ginseng, Turnip	**Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Root Rot** *Pythium spp.* **Soft Rot, Angular Leaf Spot, Bacterial Soft Rot** *Erwinia spp.* **Root Rot, Bottom / Stem Rot** *Rhizoctonia solani* **Fusarium solani**	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Banding:** 32 – 64 fl. oz. per 100 gal. water (250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Tropical / Sub Tropical Fruits, including: Bananas, Mangos, Papaya, Avocados, Coffee, Pineapples	**Root Rot** *Pythium spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Powdery Mildew** *Golovinomyces cichoracearum* (formerly called *Erysiphe cichoracearum*) **Wilt** *Fusarium oxysporum*	**Field Spray:** 32 - 128 fl. oz. per acre (2⅓ -9 L per hectare) **Greenhouse:** 16 fl. oz. per 100 gal. water (125 ml per 100 L water) **Cuttings Dip Rate:** 1- 2 fl. oz. per gal. water (8-16 ml per liter water) **Banding:** 32 – 64 fl. oz. per 100 gal. water

		(250-500 ml per 100 L water) **Drip Tape:** 32 – 64 fl. oz. per acre (2⅓ -5 L per hectare)
Grasses Grown for Seed, Sod Production, Pasture and Forage Grasses	**Anthracnose** *Colletotrichum graminicola* **Brown Patch** *Rhizoctonia spp.* **Dollar Spot** *Sclerotinia* **Summer Patch** *Magnaporthe poae* **Fusarium Patch** *Fusarium nivale* **Pythium** *Pythium spp.*	**Spray Rate Field:** 1 – 1 ½ gal. per acre (9 - 14 L 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 / acre.

How to Apply

Plug Production:

Drench at time of seed germination to control seedling diseases. Or soak plug prior to when conditions first become favorable for disease development and onset of disease. Apply at 7 – 14 day intervals or as required.

Cutting Propagation:

Drench at time of callus formation. Reapply at 14 days. Repeat every 14 days until ready for field transplant.

Greenhouse Drench:

Drench to soak plug. Apply as a pre-plant drench immediately prior to field planting to control seedling diseases.

Field Applications:

Mix with transplant water. Drench at the time of planting plug, starter plant, and bare-root transplant in field in transplant water. Or soak bare-root transplant in the solution 1 to 5 minutes and plant immediately.

In-Furrow:

Apply as an in-furrow spray in sufficient water to obtain thorough coverage of the open furrow and 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.

Banding:

Spray directly onto soil using single or multiple nozzles. Adjust to provide thorough coverage of soil surface surrounding plants. Limit band to 7" or less. Apply prior to plastic. Begin applications when conditions first become favorable for disease development. Apply at 7 – 14 day intervals or as required.

Drip Irrigation:

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® Liquid

Biological Fungicide remains in root zone and is not lost to deep percolation. Begin applications when conditions first become favorable for disease development. Apply at 7 – 14 day intervals or as required.

Spray:

Use through sprinkler, center pivot, lateral move, end tow, side-wheel roll, traveler, solid or hand move systems. Begin applications when conditions first become favorable for disease development. Apply at 7 – 14 day intervals or as required

Other:

Hydroponics Systems For all Crops Listed Above		
Crop	**Product Rates**	**Frequency & Notes**
Seed Treatment	Mix 4 fl. oz. in 1 gallon of water	Soak seeds/plugs with a solution before placing them in growing trays. Do not use treated seed for food or feed purposes or process for oil. Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seeds beyond planting time.
Herbs and Leafy Crops, Tomatoes and all Fruiting Vegetables	**Charging Rate:** 5 fl. oz. per 150 gallons of water in nutrient tank	Apply at time of placement in trays. Run through system.
	Recharging Rate: 3 fl. oz. per 150 gallons of water.	Replenish every time water is added or every 5 – 7 days.

CHEMIGATION

General Requirements -

1) Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
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 which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being 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 including 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 which 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 which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being 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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

(For containers ≤ 5 gallons)

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

(For containers ≥30 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (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 sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Notice - Read carefully conditions of sale and limited warranty statement.

As its sole express warranty, Growth Products, Ltd., warrants that this product conforms to the microbial description on the label and is reasonably fit for purposes stated on the label only when used in accordance with directions and instructions specified on the label, subject to the inherent risks set forth above. To the extent consistent with applicable law, Growth Products, Ltd. neither makes nor authorizes any of its distributors to make any warranty of fitness or merchantability, guaranty or representation, express or implied, concerning this material. Buyer assumes the responsibility to handle, use and store this product in accordance with the safety instructions and use directions contained on the label. To the extent consistent with applicable law, the Buyer/User purchases this product to the foregoing Conditions of Sale and Warranty which may be varied only by a written agreement signed by a duly authorized representative of Growth Products, Ltd., and if these terms are not acceptable, return all product to the place of purchase, unopened for a full refund.

Sublabel D: Hydroponics

(2-3-2)

COMPANION® LIQUID BIOLOGICAL FUNGICIDE

- Liquid Biological Fungicide for use in Hydroponics, Soilless Mix Hydro Gardens and Soilless Gardens
- CONCENTRATE
- For Prevention, Control and Suppression of Soil and Foliar Diseases
- Activates ISR (Induced Systemic Resistance) in Plants

Active Ingredient:
Bacillus subtilis GB03*.....00.03%
Other Ingredients: 99.97%
Total:.....100.00%
*Not less than 5.5 X 10^{10} Colony Forming Units (CFU) per gallon

Guaranteed Analysis:
Total Nitrogen (N)..... 2%
2% Water Insoluble Nitrogen
Available Phosphate (P_2O_5) 3%
Soluble Potash (K_2O) 1%
Calcium (Ca)..... 1%
Magnesium (Mg)..... 0.5%
Derived From: Concentrated Fermented Plant Extracts

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
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.	

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

Another quality product from:

Growth Products, Ltd.	Net Contents: 1 Quart
80 Lafayette Avenue	(Net Contents: 1 Gallon)
White Plains, NY 10603 USA	(Net Contents: 2.5 Gallons)
Questions? Call toll free (800) 648-7626	(Net Contents: 5 Gallons)
www.growthproducts.com	(Net Contents: 30 Gallons)
	(Net Contents: 55 Gallons)

EPA Registration No. 71065-3 EPA Establishment No. 71065-NY-001
(Lot Code / Batch No. _____)
Growth Products® (logo) and Companion® are Registered Trademarks of Growth Products, Ltd.
Information regarding the contents and levels of metals in this product is available on the internet at http://www.aapfco.org/metals.htm

PRECAUTIONARY STATEMENTS

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

Personal Protective Equipment (PPE):
Applicators and other handlers must wear:

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

Mixer/loaders and applicators must wear a dust/mist-filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handing this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: Do not apply to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

DIRECTIONS FOR USE

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

AGRICULTURAL USE REQUIREMENTS

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

For hydroponic uses there is a restricted entry of zero (0) hours for this product.

INFORMATION FOR HYDROPONICS

- **Use on Food Crops**
- **For Prevention, Control and Suppression of Root Rot Diseases**
- **Activates the Plant's Defense / Immune System (Induced Systemic Resistance [ISR])**
- **A Rhizosphere Bacterium**
- **Quickly Establishes Beneficial Colonies on Roots and Leaves**
- **Improves Nutrient Uptake**
- **Stimulates Healthier Roots and Accelerates Plant Growth**

Product Description:

Companion® Liquid Biological Fungicide for the prevention, suppression and control of plant diseases on a wide range of food crops, including fruiting vegetables, leafy crops and herbs. Companion® Liquid Biological Fungicide contains the active ingredient *Bacillus subtilis* GB03 which quickly colonizes the developing root system. Companion® Liquid Biological Fungicide provides control of root diseases including ***Rhizoctonia, Pythium, Fusarium, Sclerotinia, Botrytis and Phytophthora***. Companion® Liquid Biological Fungicide can be successfully used in any hydroponics system, soilless mix hydro garden, nutrient film technique or soil garden to improve plant vigor, root system and yield. Companion® Liquid Biological Fungicide will encourage and maintain healthy white roots and increase root mass. *Bacillus subtilis* GB03 will flourish in this environment, where it quickly adapts and establishes itself on the root systems of plants. It is antagonistic to Blue-Green Algae (Cyanobacteria) growth. It will break down root zone debris and prevent disease.

Use Companion® Liquid Biological Fungicide from the time of seeding and transplant and continued through the plant's lifecycle, for the control of problem fungal and bacterial diseases. Companion® Liquid Biological Fungicide is most effective when applied as a preventative treatment. Use Companion® Liquid Biological Fungicide in combination with reduced rates of chemical fungicides to enhance and prolong disease control. Companion® Liquid Biological Fungicide is easily injected through all systems either by proportioners or through standard fertilizer injectors.

Do not apply this product through any type of sprinkler, flood (basin), furrow, border or drip (trickle) irrigation system.

Modes of Action:

Companion® Liquid Biological Fungicide has multiple modes of action in preventing and controlling plant diseases. It produces a broad-spectrum antibiotic (Iturin) that disrupts pathogen cell-wall formation. It is a competitive and fast colonizing rhizosphere bacterium, which occupies the plant's root hairs and prevents the growth and antagonistic effects of soil borne pathogens. *Bacillus subtilis* GB03 is known to stimulate phytohormones, which trigger the plant's systemic resistance to disease ISR (Induced Systemic Resistance), the defense mechanisms of the plant, for prolonged periods of time. It is non-selective to plant materials.

PGPR (Plant Growth-Promoting Rhizobacteria):

Bacillus subtilis GB03 is classified as a Plant Growth-Promoting Rhizobacteria (PGPR). PGPR are free-living bacteria that have beneficial effects on plants as they enhance seed emergence, colonize roots, and stimulate growth.

INTEGRATED PEST (DISEASE) MANAGEMENT (IPM)

Integrate Companion® Liquid Biological Fungicide into an overall disease management program whenever fungicide use is necessary. Companion® Liquid Biological Fungicide is an important tool for hydroponics systems to manage disease, which will result in healthy and more vigorous growth. This will reduce the susceptibility to disease and result in an overall reduction in the use of chemical fungicides.

RESISTANCE MANAGEMENT

Companion® Liquid Biological Fungicide is an important tool to prevent the development of resistant pathogens that often occurs with chemical fungicide products. Companion® Liquid Biological Fungicide's multiple and unique modes of action inhibit the pathogen's ability to develop resistance. Use Companion® Liquid Biological Fungicide in combination with lower rates of chemical fungicide for improved efficacy and /or in rotation with chemical fungicides to reduce chemical applications.

STORAGE & HANDLING

Storage Requirements:

DO NOT FREEZE. Keep out of direct sunlight or heat source to prevent overheating of liquid.
Sun & Air Sealed Box: Because of the unique character of both the solution and microbial spores, Companion® Liquid Biological Fungicide has been packaged in our SUN & AIR SEALED container, which protects from UV radiation that can affect product stability and possible contamination from air borne spores.

To Dispense:

SHAKE WELL before use or before mixing with water. Remove plastic carton lid. A dispensing tap is tucked inside the carton. Pull out inner plastic container neck with cap on. Remove cap and immediately screw on tap tightly. To open tap, turn to left side. No air will be allowed into this container during use while this tap is in place. DO NOT leave container open.

MIXING INSTRUCTIONS

Tank Mixing:
SHAKE WELL before use and before mixing with water. Companion® Liquid Biological Fungicide must be diluted with water prior to use. It can be used in all commonly used spray and injection equipment. Special care must be taken when tank mixing. Clean all tanks before use. Add water to the 3/4 level of the tank, followed by fertilizer addition. Mix thoroughly, add Companion® Liquid Biological Fungicide and continue to mix.

Companion® Liquid Biological Fungicide can be mixed with most high quality fertilizers, micronutrients, organic materials, wetting agents, surfactants and most fungicides, herbicides or insecticides. Maintain agitation while spraying. DO NOT let stand overnight. Companion® Liquid Biological Fungicide can be tank mixed and applied with both systemic and contact fungicides as part of a regular growth and maintenance program.

Compatibility:

Companion® Liquid Biological Fungicide is compatible with most high quality fertilizers, micronutrients, organic materials, wetting agents, and surfactants. Companion® Liquid Biological Fungicide can also be mixed and applied with Contact and Systemic Fungicides. Do NOT mix with copper based fungicides, concentrated acids including sulfuric acid, solvents, oxidizing agents or bactericides. Do not mix with products with a pH below 4 or above 9. Apply all of tank mix solution the same day to assure viability of spores. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Consult your Growth Products representative for more information on Companion® Liquid Biological Fungicide compatibility.

COMPANION® LIQUID BIOLOGICAL FUNGICIDE DOES NOT CONTAIN ANY ANIMAL OR WASTE PRODUCTS.

PREHARVEST INTERVAL – AGRICULTURAL USE

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

USE SITES

Companion® Liquid Biological Fungicide is a broad-spectrum fungicide that can be used on hydroponics grown and soil grown crops to control a variety of diseases.

Hydroponics Systems			
Diseases	**Crop**	**Product Rates**	**Frequency & Notes**
Aspergillus spp. **Black Root Rot, Early Blight** *Alternaria spp.* **Crown Rot, Damping-off Fungus, Gray Mold, Leaf blight** *Botrytis cinerea* **Gummy Stem Blight** *Didymella bryoniae* **Root Rot** *Pythium spp.*	**Seed Treatment**	Mix 4 fl. oz. in 1 gallon of water (125 ml in 4 liters of water)	Soak seeds/plugs with a solution before placing them in growing trays. Do not use treated seed for food or feed purposes or for processing into oil. Treat only those seeds needed for immediate use.
Late Blight, Blackeye/Buckeye Rot in Tomatoes *Phytophthora spp.* **Wilt** *Fusarium oxysporum* **Root Rot, Bottom / Stem Rot** *Rhizoctonia solani* **Blight** *Sclerotinia minor* **Bacterial Leaf spot** *Xanthomonas campestris* **Powdery Mildew** *Golovinomyces cichoracearum*, formerly called *Erysiphe cichoracearum*	**Herbs and Leafy Crops, Tomatoes and Fruiting Vegetables**	**Charging Rate:** 1 fl. oz. per 30 gallons of water in nutrient tank (30 ml per 120 liters of water)	Apply at time of placement in trays. Run through system.
		Recharging Rate: 1 fl. oz. per 50 gallons of water (30 ml per 200 liters of water)	Replenish every time water is added or every 5 – 7 days.

Common Disease Names:

Damping Off, Root Rot, Wilt, Gummy Stem Blight, Early Blight, Leaf Blight, Black Rot, Gray Mold and Angular Leaf Spot.

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	Apply Companion® Liquid Biological Fungicide after each water change. Clean mix tank weekly. Pre-soak transplants in same solution mix.

	water. (30 ml per 200 liters water)	
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 the solution with Companion® Liquid Biological Fungicide at the end of the watering cycle so that it stays in the system longer. Repeat the application every 14 to 28 days, or 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 every 14 – 28 days or by checking the quality of the roots. Apply the solution with Companion® Liquid Biological Fungicide at the end of the watering cycle so that it stays in the system longer.

Set Injection Ratio to:		
1:100	**1:200**	**Frequency & Notes**
16 fl. oz. of Companion® Liquid Biological Fungicide per gallon of stock tank (160 fl. oz. per 100 gallons of stock tank)	32 fl. oz. of Companion® Liquid Biological Fungicide per gallon of stock tank (320 fl. oz. per 100 gallons of stock tank)	Apply every 14 – 28 days.

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 may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

(For containers ≤ 5 gallons)
Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(*For containers ≥30 gallons*)
Non-refillable container. Do not reuse or refill this container. Triple rinse (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 sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Notice - Read carefully conditions of sale and limited warranty statement.

As its sole express warranty, Growth Products, Ltd., warrants that this product conforms to the microbial description on the label and is reasonably fit for purposes stated on the label only when used in accordance with directions and instructions specified on the label, subject to the inherent risks set forth above. To the extent consistent with applicable law, Growth Products, Ltd. neither makes nor authorizes any of its distributors to make any warranty of fitness or merchantability, guaranty or representation, express or implied, concerning this material. Buyer assumes the responsibility to handle, use and store this product in accordance with the safety instructions and use directions contained on the label. To the extent consistent with applicable law, the Buyer/User purchases this product to the foregoing Conditions of Sale and Warranty which may be varied only by a written agreement signed by a duly authorized representative of Growth Products, Ltd., and if these terms are not acceptable, return all product to the place of purchase, unopened for a full refund.

Information regarding the contents and levels of metals in this product is available on the Internet at http://www.aapfco.org/metals.htm

Date of Manufacture _____

Sublabel E: Home & Garden Use

2-3-2

COMPANION® LIQUID BIOLOGICAL FUNGICIDE

(Alternate Brand Name: "Companion® Garden Biological Fungicide")

- CONCENTRATE
- Liquid Biological Fungicide for Home and Garden Use
- For Prevention, Control and Suppression of Soil and Foliar Diseases
- Activates the Plant's Defense System
- Stimulates Healthier Roots and Accelerates Plant Growth
- Disease(s) Control
- Multi-Purpose Fungicide
- Use on Vegetables, Fruits, Roses, Flowers, Lawns, Shrubs & Ornamentals

Active Ingredient:

Bacillus subtilis GB03*.....00.03%
Other Ingredients: 99.97%
Total:.....100.00%

*Not less than 5.5 X 10^{10} Colony Forming Units (CFU) per gallon

Guaranteed Analysis:

Total Nitrogen (N)..... 2%
2% Water Insoluble Nitrogen
Available Phosphate (P_2O_5) 3%
Soluble Potash (K_2O) 1%
Calcium (Ca)..... 1%
Magnesium (Mg)..... 0.5%
Derived From: Concentrated Fermented Plant Extracts

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
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.	

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

Another quality product from:

Growth Products, Ltd. 80 Lafayette Avenue White Plains, NY 10603 USA Questions? Call toll free (800) 648-7626 www.growthproducts.com	Net Contents: 1 Quart (Net Contents: 1 Gallon) (Net Contents: 2.5 Gallons) (Net Contents: 5 Gallons) (Net Contents: 30 Gallons) (Net Contents: 55 Gallons)

EPA Registration No. 71065-3 EPA Establishment No. 71065-NY-001
(Lot Code / Batch No. _____)

Information regarding the contents and levels of metals in this product is available on the internet at http://www.aapfco.org/metals.htm

PRECAUTIONARY STATEMENTS

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

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

QUICK FACTS

- Promotes healthy, disease-free gardens and lawns
- Activates the plant's immune system.
- A naturally-occurring rhizosphere bacterium
- Quickly establishes beneficial colonies on roots and leaves
- For control of soil and foliar disease.

DIRECTIONS FOR USE

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

(LAWN AND) GARDEN USE INFORMATION

For Use on Roses, Fruits, Vegetables, Flowering Plants, Trees, Shrubs and Lawns

- **Black Rot and Crown Rot**
- **Root Rot**
- **Blight**
- **Downy Mildew**
- **Crown Rot**
- **Damping-off Fungus**
- **Gray Mold**
- **Leaf Blight**
- **Gummy Stem Blight**
- **Powdery Mildew**
- **Root Rot & Stem Rot**
- **Wilt**

Lawn Diseases

- **Anthracnose**
- **Brown Patch**
- **Dollar Spot**
- **Summer Patch**
- **Fusarium Patch**
- **Pythium Blight**
- **Pythium Root Rot**
- **Pythium Crown Rot**

Companion® Liquid Biological Fungicide is a concentrated liquid that has broad spectrum, preventative disease control for bedding plants, annuals and perennials, turf grass, fruits, vegetables, tropical foliage plants, palms and ornamental trees and shrubs.

Companion® Liquid Biological Fungicide controls a variety of the most common plant root rot and foliar diseases when used on a preventative schedule.

MIXING AND APPLICATION INSTRUCTIONS

SHAKE WELL before use or before mixing with water.

Companion® Liquid Biological Fungicide is a concentrated solution that is easily mixed with water and hand-watered in at time of planting or spray applied through a variety of Lawn and Garden sprayers including pressurized sprayer tanks and hose-end sprayers.

Use Companion® Liquid Biological Fungicide at time of planting or prior to disease pressure or immediately at the first sign of disease. Repeat application for root rot diseases every 14- 28 days especially during high disease and stress periods. See rate charts for different plant materials and diseases.

(APPLICATION DIRECTIONS)

Crop	Application Instructions	Intervals
All Types of Vegetables, Fruits, Nuts, Ornamentals, Trees, Shrubs, And Flowering Plants, including: Annuals Perennials Bedding Plants Ground Covers Potted Flowers Flowering Plants Foliage Plants Tomatoes Peppers Cucurbits Leafy Vegetables Garlic Onions Cole Crops Deciduous Trees & Shrubs Evergreen Trees & Shrubs Tropical Foliage Palms Container Grown Plants All Turfgrass Varieties	**Pressurized Hand-Held Sprayer (and Larger Spray Tanks):** **Mixing:** (Mix 1 – 2 teaspoons into one gallon of water.) (Using the provided cap, mix ½ capful (1 fl. oz.) per gallon of water.) Mix well. **Application:** Use 15 fluid ounces of spray solution per 100 square feet. (graphic) **Dial-Style Hose-End Sprayer:** 1. Fill sprayer jar with (enough) concentrate (to cover plants to be treated). 2. Close sprayer and set dial at (1 to 2 teaspoons per gallon water for plants) (to 3 fl. oz. or 6 tablespoons). 3.Attach sprayer to hose and thoroughly drench root area and foliage. (graphic) **Watering Can:** Using the provided cap, mix ½ capful (1 fl. oz.) into one gallon of water. Mix well. Thoroughly soak soil and leaves with solution. (graphic) **Soil Drench:** Mix 1 – 2 teaspoons into one gallon of water. Mix well. Thoroughly soak soil with solution.	**New Plantings and Transplants:** Apply at time of planting to prevent disease. Place seeds, plug, or potted plant in soil and drench thoroughly. Reapply 4 – 28 days later. While disease conditions persist, re-treat every 7-14 days. **Established Plantings (and Lawns):** (Apply prior to disease pressure at 14-28 day intervals. While disease conditions persist, re-treat every 7-14 days.) (Begin treatment 2 weeks before disease normally appears. Alternatively, begin treatment when disease first appears. Repeat to 7 – 14 day intervals. **For Lawns:** Use Dial-Style Hose-End Sprayer and set dial to 3 – 4 fl. oz.. Apply to 1,000 sq ft. Apply every 14 – 28 days prior to disease pressure and while disease conditions persist.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place out of direct sunlight and away from heat sources. Keep container closed when not in use.

Pesticide Disposal and Container Handling: If empty: Nonrefillable container. Do not reuse or refill this container. Place in trash and offer for recycling if available.

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

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