STARGUS®

BIOFUNGICIDE

Broad-spectrum biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases

Active ingredient: *Bacillus amyloliquefaciens* strain F727* cells and spent fermentation media 96.4%
Other ingredients: 3.6%
Total 100.0%

*Contains a minimum of 1 X 10⁹ cfu/ml of product

EPA Reg. No.: 84059-28

GROUP BM02 FUNGICIDE

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
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.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
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.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For non-emergency information on product usage, for example, call (1-877-644-4476), Monday through Friday, 9a.m. to 5 p.m Pacific Time. For medical emergencies call your poison control center at 1-800-222-1222.

CAN BE USED IN ORGANIC PRODUCTION

OMRI® LISTED
For Organic Use

Manufactured by:
ProFarm™
1530 Drew Ave, Davis, CA 95618 USA
1-877-664-4476; info@profarmgroup.com

MBI-LBL-121 r5_v2

Lot No: Printed on Container

Job 252462

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear. 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
- shoes plus socks
- waterproof gloves
- protective eyewear

Mixers/loaders and applicators must wear a NIOSH-approved particulate filter with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

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

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

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

DIRECTIONS FOR USE

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

AGRICULTURAL USE REQUIREMENTS

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

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

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 wear:

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

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

Non-Agricultural Use Requirements

The requirements in this box apply to uses of the 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 treatment area until seeds have dried or been packaged.

PRODUCT INFORMATION

STARGUS® BIOFUNGICIDE is a biological fungicide containing *Bacillus amyloliquefaciens* strain F727. Apply prior to disease infestation to protect the growing leaf tissue, flowers and above ground fruits and vegetables. STARGUS® BIOFUNGICIDE can be used in multiple application methods to control or suppress certain foliar and soil-borne diseases. See specific information below for diseases controlled, use rates and application intervals.

STARGUS® BIOFUNGICIDE can be used in either the field or greenhouse for the prevention of any labeled disease.

MODE OF ACTION

The active ingredient in STARGUS® BIOFUNGICIDE is a beneficial rhizobacterium that colonizes plant root hairs, leaves and other surfaces to prevent establishment of fungal and bacterial plant diseases. STARGUS® BIOFUNGICIDE has a protective effect because it inhibits spore germination and a curative effect because it inhibits mycelial growth and sporulation of the fungus on the leaf surface. However, optimum disease control is achieved when STARGUS® BIOFUNGICIDE is applied preventatively in a regularly scheduled protective spray program and used in rotation or tank mix program with other registered fungicides.

MIXING AND APPLICATION INSTRUCTIONS – SHAKE WELL PRIOR TO USE –

STARGUS® BIOFUNGICIDE is an aqueous suspension. Use 50-mesh nozzle screens or larger.

See FOLIAR (AERIAL OR GROUND) APPLICATION section for foliar application use directions.

See BACKPACK/HANDHELD SPRAYER section for use directions.
See CHEMIGATION section for chemigation use directions.
See PRE-PLANT DIP section for pre-plant dip use directions.
See SOIL TREATMENT section for soil application use directions.

Use higher water volumes with larger sized crops and extensive foliage to secure thorough coverage.

STARGUS® BIOFUNGICIDE alone: Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the STARGUS® BIOFUNGICIDE to the mix tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the STARGUS® BIOFUNGICIDE has completely dispersed into the mix water. Maintain agitation until all the mixture has been applied.

STARGUS® BIOFUNGICIDE + tank-mixtures: Add 1/2 - 3/4 of the required amount of water to the mix tank. Start the agitation before adding any tank-mix partners. In general, tank-mix partners should be added in this order: wettable powders, dry flowable formulations, liquid flowable formulations, and emulsifiable formulations such as STARGUS® BIOFUNGICIDE. Always allow each tank-mix partner to become completely dispersed before adding the next component. Maintain continuous agitation until all components have been dispersed and throughout the application process. After all components are completely dispersed add the remainder of the water. STARGUS® BIOFUNGICIDE cannot be mixed with another product with a prohibition against mixing. Use of the tank-mix must be in accordance with the more restrictive label limitations and precautions. **Do not pre-mix STARGUS® BIOFUNGICIDE with any other tank-mix component prior to adding to the spray tank**.

Compatibility: Do not combine STARGUS® BIOFUNGICIDE in the spray tank with pesticides, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, and non-injurious under your use conditions.

STARGUS® BIOFUNGICIDE is compatible with many commonly used pesticides, fertilizers, adjuvants, and surfactants, but has not been evaluated with all potential combinations. To ensure compatibility of the tank mix combinations, evaluate prior to use as follows: Using a suitable container, add the proportional amounts of product to water. Add wettable powders first, then water dispersible granules, then liquid flowables, and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the mix on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of the application.

FOLIAR (GROUND AND AERIAL) APPLICATION INSTRUCTIONS

0.5 – 4 quarts STARGUS® BIOFUNGICIDE per acre

For foliar ground applications, to optimize disease control and to maximize yields, apply this product 10-100 gallons of water per acre. Increase water volume as plant size increases.

For foliar aerial applications, apply this product in 3-10 gallons of water per acre.

Repeat applications at 7- to 10- day intervals.

Consult your local Extension specialist or crop consultant regarding the optimum timing of fungicide applications.

Orchard Spraying

- Dilute spray application: Dilute applications: this product can be applied by ground equipment to vine and tree crops in dilute applications of 100 - 400 gallons of water. Avoid excessive amounts of water that result in the runoff of spray material
- Concentrate spray application: This application method is based on the premise that all plant parts are uniformly covered with spray solution but not to the point of runoff as with a dilute spray. Instead, a lower spray volume is used to deliver the same application rate of product per acre as is used for the dilute spray.

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

Avoiding spray drift is the responsibility of the applicator.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Unless specified differently in the SELECTED CROPS section, apply in a spray volume of 5 or more gallons per acre on row crops and 10 or more gallons per acre on tree or orchard crops. Disease control by aerial application may be less than control by ground application because of reduced coverage.

SPRAY DRIFT Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather- related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed. Note: This section is advisory in nature and does not supersede the mandatory label requirements.

INFORMATION ON DROPLET SIZE: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply droplets large enough to provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When high flow rates are needed, use higher flow rate nozzles instead of increasing pressure. Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage. Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential. Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM WIDTH: For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 2-10 mph as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.

APPLICATION HEIGHT: Do not make application at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

WIND: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS: Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

BACKPACK/HAND-HELD SPRAYER USE DIRECTIONS

The use rate for STARGUS® BIOFUNGICIDE when applied in a backpack or hand-held sprayer is 0.5 – 1 fluid ounces per gallon applied at 1 - 2.5 gallons of water per 1000 square feet. Or apply STARGUS® BIOFUNGICIDE at a dilution of 0.5 – 2.5 fluid ounces per gallon of water. Apply sufficient volume to obtain thorough coverage but do not use carrier volumes and/or adjuvants that create spray runoff or drip-accumulation at the base of fruit or on the commodity. See specific application recommendations pertaining to each crop for additional details.

Use rate for STARGUS® BIOFUNGICIDE

	Tablespoons STARGUS® BIOFUNGICIDE per Gallon of Water	Fluid Ounces STARGUS® BIOFUNGICIDE per Gallon of Water	Applied (diluted) Gallons per 1,000 sq. ft.
Rates	1-2	0.5-1	1 – 2.5

CHEMIGATION USE DIRECTIONS

Apply STARGUS® BIOFUNGICIDE according to the instructions below unless specified differently in the SELECTED CROPS section.

Chemigation (drip)
2– 4 quarts per acre
For chemigation applications for improved plant growth and suppression of soil-borne diseases, apply this product through drip irrigation.

Soil Drench Chemigation
2– 4 quarts per acre

Make an initial application of this product during or shortly after transplant to reduce transplant shock, suppress soil-borne diseases and improve root growth. Multiple drench applications can be made on a 10- to 21-day interval.

Chemigation (sprinkler)
1 – 4 quarts per acre
For chemigation applications, apply STARGUS® BIOFUNGICIDE through overhead irrigation at the rate of 1 - 4 quarts per acre immediately after transplant and at 10- to 21-day intervals or begin 14 days after transplant when plant dip or soil drench applications are used.

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.

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. Maintain agitation throughout the mixing and application process
4) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
5) 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.
6) 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.
7) 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.
8) 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 back flow.
9) 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.

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.

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 back flow if water flow stops.

PRE-PLANT DIP USE DIRECTIONS

Plant Dip*

1 - 4 quarts per 100 gallons

For transplant applications for improved plant growth and suppression of soil-borne diseases, apply this product as a pre-plant dip immediately prior to transplanting.

SOIL TREATMENT USE DIRECTIONS

STARGUS® BIOFUNGICIDE can be applied by soil drench, in-furrow and banded spray, or soil injection to improve plant health and to protect against certain soil-borne diseases.

In general, STARGUS® BIOFUNGICIDE can be applied by the following methods, unless specified differently in the SELECTED CROPS section:

Soil Drench Applications:

Soil Drench

3 – 4 quarts per acre

For soil drench applications, apply this product at a concentration of 3 - 4 quarts per acre in up to 100 gallons of water, thoroughly soak the growing media and root zone. Make an initial application of this product during or shortly after transplant to reduce transplant shock, suppress soil-borne diseases and improve root growth. Multiple drench applications can be made on a 10- to 21-day interval.

Shanked-In and Injected Applications:

STARGUS® BIOFUNGICIDE can be shanked-in or injected into the soil alone, or with most types of liquid nutrients. Refer to the In-Furrow and Banded Applications table below for rate instructions.

In-Furrow and Banded Applications:

In-Furrow

2 – 4 quart per acre (2 – 8 fl. oz. per 1000 ft. row)

For in-furrow applications, at planting, apply this product as an in-furrow spray at the rate of 1 – 8 fluid ounces per 1000 feet of row according to the chart(in the SOIL TREATMENT USE DIRECTIONS section. Apply STARGUS® BIOFUNGICIDE in 5 - 15 gallons of water per acre so as the spray is directed into the seed furrow just before the seeds are covered. For banded applications apply to the open seed furrow and lightly incorporate after the seed furrow is closed.

Banded Soil drench

2 – 4 quarts/acre

Apply as a banded soil drench, or chemigate via microsprinkler, drip or other irrigation system in sufficient water to move product into the root zone. Begin applications during early shoot growth and continue applications on a 4- to 6-week interval until fall.

*not labeled for this use in California.

Rate		In-Furrow and Banded Application Rates Product per Acre (fl. oz.)					
	20" Rows	30" Rows	32" Rows	34" Rows	36" Rows	38" Rows	40" Rows
4.0 fl. oz. per 1000 ft. row	104.5	69.7	65.3	61.5	58.1	55.0	52.3
6.0 fl. oz. per 1000 ft. row		104.5	97.9	92.2	87.1	82.5	78.4
8.0 fl. oz. per 1000 ft. row				123.0	116.2	110.0	104.5

20" = 26,136 row ft./acre, 30" = 17,424 row ft./acre, 32" = 16,315 row ft./acre, 34" = 15,374 row ft./acre, 36" = 14,520 row ft./acre, 38" = 13,754 row ft./acre, 40" = 13,068 row ft./acre.

APPLICATION RATES FOR SELECTED CROPS

STARGUS® BIOFUNGICIDE can be applied up to and including the day of harvest.

The general recommended use rate for STARGUS® BIOFUNGICIDE applied alone or as an alternate spray is 1 - 4 quarts per 100 gallons of water (0.25 – 1.0% v/v dilution). When tank mixed with another fungicide, the use rate for STARGUS® BIOFUNGICIDE is 0.5 – 4 quarts in 100 gallons of water. Use higher water volumes with larger sized crops and extensive foliage in order to secure thorough coverage. See specific application recommendations for additional details.

For greenhouse application, the recommended use rate for STARGUS® BIOFUNGICIDE is 1 - 4 quarts in 100 gallons of water sprayed until just before point of runoff. When tank mixed with another fungicide, the use rate for STARGUS® BIOFUNGICIDE is 0.5 – 4 quarts in 100 gallons of water. Repeat at 7- to 10-day intervals as needed. See specific application recommendations for additional details. This product may be used to control certain diseases of container, bench, flat, plug, bed, or field-grown ornamentals in greenhouses, shade-houses, outdoor nurseries, retail nurseries, and other landscape areas. Spray until just before point of runoff.

STARGUS® BIOFUNGICIDE has a **pre-harvest interval (PHI)** of **0 days**.
Do not enter (or allow worker entry) into treated areas during the **restricted-entry interval (REI)** of **4 hours**.

FOR USE ON THE FOLLOWING CROPS FOR CONTROL OR SUPPRESSION OF THE FOLLOWING PESTS / DISEASES / PATHOGENS

- Aerial Web Blight (*Rhizoctonia solani*)*
- Alternaria Blight (*Alternaria cucumerina*)*
- Alternaria Blotch (*Alternaria mali*)*
- Alternaria Brown Spot (*Alternaria alternata*)
- Alternaria Fruit Rot (*Alternaria spp.)*
- Alternaria Leaf Blight (*Alternaria spp.)*
- Alternaria Leaf Spot (*Alternaria spp*.)
- Alternaria Leaf Spot, Boll Rot (*Alternaria spp*.)
- Alternaria Spot/Fruit Rot (*Alternaria alternata*)
- Angular Leaf Spot (*Mycosphaerella angulata)** *(Xanthomonas fragariae*)*

*not labeled for this use in California.

- Anthracnose (*Collectotrichum spp.) (Gnomonia leptostyla) (Colletotrichum gloeosporioides) (Colletotrichum lagenarium) (Colletotrichum truncatum) (Elsinoe ampelina)**
- Anthracnose *(Colletotrichum coccodes) (Colletotrichum atramentarium) (Colletotrichum dematium)**
- Anthracnose (*Colletotrichum spp*.) – suppression only*
- Anthracnose and Black Stem Rot (*Colletotrichum trifolii*)*
- Anthracnose Boll Rot (*Glomeria spp*.)*
- Anthracnose Fruit Rot (*Colletotrichum acutatum)*
- Anthracnose Leaf Blight (*Colletotrichum graminicola*)*
- Anthracnose of Potato (*Colletotrichum* coccodes)*
- Anthracnose, Boll Rot (*Glomeria spp*.)*
- Apple Scab (*Venturia inaequalis*) (Suppression only)
- Ascochyta Blight, Boll Rot (*Ascochyta spp.)**
- Bacterial Blight *(Xanthomonas campestris pv. pruni) (Xanthomonas campestris)*
- Bacterial Blight and Streak (*Xanthomonas spp.)*
- Bacterial Blight/Rot (*Xanthomonas spp.)*
- Bacterial Leaf Blight (*Xanthomonas campestris)*
- Bacterial leaf streak (*Xanthomonas campestris pv. Holcicola)*
- Bacterial Pustule (*Xanthomonas spp.)*
- Bacterial Spot (*Xanthomonas pruni) (Xanthomonas spp.) (Xanthomonas cucurbitae)*
- Black Mold (*Alternaria alternata)*
- Black root rot *(Rhizoctonia spp.)*
- Black Rot (*Guignardia bidwellii)*
- Black Rot/Frogeye Leaf Spot (*Botryosphaeria obtusa)**
- Black Scurf (*Rhizoctonia solani)*
- Black shank (*Phytophthora nicotianae)*
- Black Spot (*Guignardia citricarpa), (Phyllosticta citricarpa)**
- Blossom Blight (*Monilinia spp.)**
- Blue Mold (*Peronospora tabacina)*
- Boll Rot (*Alternaria spp.) (Ascochyta spp.) (Fusarium spp.) (Phoma spp.)**
- Bot Rot (*Botryosphaeria dothidea)*
- Botryosphaeria Blight (*Botryosphaeria dothidea)*
- Botrytis (*Botrytis cinerea)*
- Botrytis Blight (*Botrytis cinerea)*
- Botrytis Bud Rot (*Botrytis cinerea)*
- Botrytis Bunch Rot (*Botrytis cinerea)*
- Botrytis Fruit Rot (*Botrytis cinerea)*
- Botrytis Leaf Blight (*Botrytis squamosa)**
- Botrytis Neck Rot (*Botrytis spp.)*
- Brown / Hull Rot (*Monilinia spp.)**
- Brown blight (*Alternaria alternata) (Alternaria tenuis)**
- Brown leaf spot and stem canker (*Ascochyta spp.) (Asochyta prasadii) (Phoma spp.)(Didymella spp.) (Phoma exigua)(Phoma glomerata)(Phoma herbarum)**
- Brown patch (*Rhizoctonia solani*)
- Brown Rot (*Monilinia spp.)**
- Brown Rot Blossom Blight (*Monilinia laxa*)
- Brown Rot Fruit Rot (*Monilinia fruticola*)*
- Brown Spot (*Alternaria spp.) (Septoria glycines*)*

*not labeled for this use in California.

- Cercospora Blight (*Cercospora asparagi)(Cercospora kikuchii)**
- Cercospora Blight and Leaf Spot (*Cercospora spp.)*
- Cercospora Leaf Spot (*Cercospora citrulina) (Cercospora spp.) (Cercospora beticola)*
- *Cladosporium spp**
- Cladosporium stem canker (*Cladosporium cladosporioides)(Cladosporium herbarum)(Mycospaerella tassiana)**
- Colletotrichum Crown Rot (*Colletotrichum spp.) (Colletotrichum graminicola)**
- Corn grey leaf spot (*Cercospora zeae-maydis) (Cercospora zeina)**
- Dollar Spot (*Lanzia spp.) (Moellerodiscus spp*. formerly *Sclerotinia homeocarpa*)
- Downy Mildew (*Bremia lactucae), (Peronospora spp.) (Peronospora destructor) (Peronospora mansherica) (Peronospora parasitica) (Peronospora trifoliorum) (Plasmopara viburni) (Plasmopara viticola) (Pseudoperonospora cannabina) (Pseudoperonospora cubensis) (Pseudoperonospora humuli)*
- Early Blight (*Alternaria solani)*
- Early Blight of celery (*Cercospora apii)**
- Early Leaf Spot (*Cercospora arachidicola)**
- Fire Blight (*Erwinia amylovora*) – suppression only
- Flyspeck (*Zygophiala jamaicensis*)*
- Frog-eyed Leaf Spot (*Cercospora sojina*)*
- Fruit rot *(Phomopsis spp.)*
- *Glomerella tucumanensis*, also known as *Colletotrichum falcatum* (Suppression Only)*
- Gray Mold (*Botrytis cinerea) (Botrytis spp*.)
- Green Fruit Rot (*Botrytis cinerea*)
- Gummy Stem Blight (*Didymella bryoniae*)*
- Hemp canker (*Sclerotinia sclerotiorum*)
- Hemp Leaf Spot (*Bipolaris sp*.)
- Late Blight (*Phytophthora infestans) (Septoria apiicola*)
- Late Leaf Spot (*Cercosporidium personatum)**
- Mummy Berry *(Monilinia vaccinii-corymbosi)**
- Onion Downy Mildew (*Peronospora destructor)*
- Onion Purple Blotch (*Alternaria porri)**
- Phomopsis fruit rot *(Phomopsis viticola)*
- Phompsis Leaf Spot *(Phomopsis spp.)*
- Phytophthora Blight (*Phytophthora capsici)*
- Phytophthora Root Rot and Crown Rot (*Phytophthora spp.)*
- Phytophthora (*Phytophthora spp*.)
- Pin Rot Complex (*Alternaria/Xanthomonas)*
- Pink Rot (*Phytophthora erythroseptica)(Sclerotinia sclerotiorum)*
- Postbloom Fruit Drop (*Colletotrichum acutatum)**
- Powdery Mildew *(Podosphaera leucotricha) (Uncinula necator) (Oidium spp.)*
- Pythium (aerial blight phase) (*Pythium spp.)*
- Pythium (*Pythium spp.)*
- *Pythium acanthicum*
- *Pythium aphanidermatum*
- Pythium Blight, Pythium Root Rot (*Pythium aphanidermatum), (Pythium spp.)*
- *Pythium dissoticum*
- *Pythium myriotylum*
- Pythium root and damping off

*not labeled for this use in California.

- Red Rot (*Glomerella tucumanensis*, also known as *Colletotrichum falcatum)*
- Red Thread (*Laetisaria fuciformis)**
- Rhizoctonia root rot *(Rhizoctonia solani)*
- Rhizoctonia *(Rhizoctonia spp.)*
- Scab (*Cladosporium carpophilum) (Sphaceloma perseae) (Elsinoe australis) (Elsinoe fawcetti) (Elsinoe mangiferae) (Venturia spp.)*
- Sclerotinia (*Sclerotinia Sclerotiorum)*
- Sclerotinia Head and Leaf Drop (*Sclerotinia minor) (Sclerotinia sclerotiorum)*
- Sclerotinia stem and crown rot (*Sclerotinia sclerotiorum*)
- Sclerotium root and stem rot (*Sclerotium rolfsii)(Athella rolfsii)*
- Shot Hole (*Wilsonomyces carpophilus)**
- Smut *(Tilletia spp.)*
- Sorghum downy mildew (*Peronosclerospora sorghi)**
- Southern blight (*Sclerotium rolfsii) (Athella rolfsii)*
- Southern leaf blight (*Bipolaris spp.) (Cochliobolus heterostrophus)**
- Twig blight *(Phomopsis spp.)*
- Walnut Blight *(Xanthomonas campestris)*
- White Mold *(Sclerotinia sclerotiorum) (Sclerotium rolfsii) (Sclerotinia minor) (Sclerotinia trifoliorum)*
- white mold stem rot
- White Mold/ Sclerotinia Stem Rot *(Sclerotinia sclerotiorum)*
- *Xanthomonas campestris*
- Xanthomonas leaf spot (*Xanthomonas campestris pv. cannabis)*
- Xanthomonas Leaf Spot (*Xanthomonas campestris)*
- *Xanthomonas spp*.
- Yellow leaf spot (*Septoria cannabis)(Septoria cannabina)*

ROOT AND TUBER VEGETABLES
Beet, Carrot, Cassava, Ginger, Ginseng, Horseradish, Parsnip, Potato, Radish, Rutabaga, Sugar Beets, Sweet Potato, Turnip, (including those for seed production), Yam

For control of Early Blight (*Alternaria solani*), Black Root Rot/Black Crown Rot (*Alternaria* spp.), and Late Blight (*Phytophthora infestans*), begin application of this product in 25 - 100 gallons of water per acre soon after emergence when conditions are conducive to disease development. Repeat on a 7-day interval. In moderate to heavy disease pressure rotate or tank-mix STARGUS® BIOFUNGICIDE with another product labeled for control of early blight or late blight.

LEAVES OF ROOT AND TUBER VEGETABLES
Beet, Chervil, Rutabaga, Turnip

BULB VEGETABLES
Garlic, Leek, Onion (Bulb and Green), Shallot

*not labeled for this use in California.

LEAFY VEGETABLE CROPS (EXCEPT *BRASSICA* VEGETABLES)
Arugula, Celery, Cilantro, Corn Salad, Cress, Dandelion, Dock, Edible Chrysanthemum, Endive, Fennel, Head Lettuce, Leaf Lettuce, Mustard Greens, Parsley, Purslane, Radicchio, Rhubarb, Spinach, Swiss Chard, Turnip Greens, Watercress

For application through sprinkler or sub-surface drip irrigation, apply in sufficient water to move the product into the root zone.

***BRASSICA* (COLE) LEAFY VEGETABLES**
Broccoli, Broccoli Rabe, Brussels Sprouts, Cabbage, Cauliflower, Cavalo, Chinese Broccoli, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens

LEGUME VEGETABLES, SUCCULENT OR DRIED (EXCLUDING PEANUTS)
Chick Peas, Dry Beans, Garbanzo Beans, Garden Pea, Green Beans, Lentils, Lima Beans, Peas, Shell Beans, Snap Beans, Soybean, Split Peas, and other legume crops (including those grown for seed or oil production)

Consult your local Extension specialist or crop consultant regarding the optimum timing of fungicide applications.

For improved performance against Cercospora blight* and frog-eyed leaf spot*, apply 1 – 4 quarts of this product in a tank mix with another registered fungicide.

FOLIAGE OF LEGUME VEGETABLES
Bean, Field Pea, Garden Pea, Soybean

FRUITING VEGETABLES
Eggplant, Ground Cherry, Okra, Pepper, Tomatillo, Tomato

For improved control of bacterial spot, tank-mix STARGUS® BIOFUNGICIDE with a label rate of a copper-based fungicide or other fungicide labeled for control of bacterial spot.

CUCURBIT VEGETABLES
Acorn squash, Balsam apple, Balsam pear, Bitter melon, Butternut squash, Calabaza, Cantaloupe, Casaba, Chayote, Chinese cucumber, Chinese okra, Chinese waxgourd, Citron melon, Crenshaw melon, Crookneck squash, Cucumber, Cucuzza, Gherkin, Golden pershaw melon, Honeydew melon, Honey balls, Hubbard squash, Hyotan, Mango melon, Muskmelon, Persian melon, Pineapple melon, Pumpkin, Santa Claus melon, Scallop squash, Snake melon, Spaghetti squash, Straightneck squash, Summer Squash, Vegetable marrow, Watermelon, Zucchini

CITRUS FRUIT
Grapefruit, Lemon, Lime, Orange, Tangelo, Tangerine/Mandarin

*not labeled for this use in California.

POME FRUITS (1-4)* or (1-3) quarts per acre
Apple, Crabapple, Loquat, Mayhaw,Oriental Pear, Pear, Quince

Use the higher label rate and use the shorter spray interval when conditions are conducive to rapid disease development.

Fire Blight – Apply this product at (1-4)* or (1-3) quarts per acre in 50 - 100 gallons of water per acre beginning at green tip and continuing through petal fall. For maximum control, use this product prior to infection events. During periods of rapid development and frequent infection periods, use spray intervals of 3 - 7 days.

Apply in sufficient water to provide full coverage. For improved performance, use this product in a rotational program with antibiotics registered for fire blight control. Use caution when selecting spray adjuvants. Select only those adjuvants which through prior experience do not affect fruit finish when combined with this product.

Proper orchard cultural practices are essential to eliminate fire blight-infected tissue from the orchard to assure good performance of any crop protection product. Care must be taken to remove and destroy dead and diseased wood from the orchard prior to and during the growing season.

Scab – Apply (1-4)* or (1-3) quarts of this product in 50 - 100 gallons of water per acre at green tip and through bloom when environmental conditions become favorable for primary scab development and repeat when conditions are conducive for ascospore release. During periods of rapid development and frequent infection periods, use spray intervals of 3 - 7 days. Use caution when selecting spray adjuvants. Select only those adjuvants which through prior experience do not affect fruit finish when combined with this product.

STONE FRUITS
Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum, Plumcot, Prune

Brown Rot Blossom Blight – Begin application of the labeled rate of this product in 50 - 100 gallons of water per acre at early bloom, and repeat through petal fall on a 7-day interval.

Powdery Mildew – Begin application of the labeled rate of this product in 50 - 100 gallons of water per acre at popcorn stage, and repeat on a 7-day interval.

Scab – Begin application of the labeled rate of this product in 50 - 100 gallons of water per acre at petal fall, and repeat on a 7-day interval.

For all other diseases – Begin application of the labeled rate of this product prior to disease development when environmental conditions and plant stage are conducive to rapid disease development, and repeat on a 7 day interval.

*not labeled for this use in California.

BERRIES (AND SMALL FRUIT)
Bushberries: Blueberry, Highbush Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, Salal
Caneberries: Blackberry (all varieties), Loganberry, Raspberry (red and black), and cultivars and/or hybrids of these
Grape, Strawberry, Kiwi

Foliar (ground):
Mummy Berry* – Initiate application of the labeled rate of this product at bud break stage of development. Apply this product preventatively and repeat on a 7- to 10-day interval.

Botrytis Blight – Apply this product preventatively when the first disease symptoms are visible and reapply every 7 to 10 days.

Anthracnose Fruit Rot and Alternaria Fruit Rot on blueberries – Initiate application of the labeled rate of this product at green tip and continue applications on a 7- to 10- day interval.

Increase water volume as plant growth increases to maintain thorough coverage. To protect pruning wounds from vine diseases apply STARGUS® BIOFUNGICIDE at 1 – 4 quarts per 100 gallons of water per acre using ground application equipment that thoroughly wets all susceptible grapevine tissue. Apply as a directed spray immediately after pruning (within 24 hours). A second application is recommended approximately two weeks later. The addition of a registered spray dye is recommended to confirm thorough coverage of susceptible tissue.

Anthracnose - apply labeled rates of this product preventatively in 50 - 100 gallons of water per acre and repeat on a 7- to 10-day interval.

TREE NUTS
Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut (Black and English)

This product can be tank mixed with another registered fungicide for improved control under heavy disease pressure.

Walnut Blight - For preventative control, apply this product in 50-100 gallons of water per acre. Repeat applications at 7- to 10-day intervals. Under conditions of moderate to heavy disease pressure, tank mix this product with a copper-based fungicide/bactericide.

CEREAL GRAINS
Barley, Buckwheat, Corn (Sweet Corn, Field Corn, Popcorn, Silage Corn, Seed Corn, and other corn crops, including crops grown for seed), Milo, Millets, Oat, Rice†, Rye, Sorghum, Triticale, Wheat

†Do not apply to rice fields while flooded.

Foliar (aerial and ground): It is important to apply this product at the flag leaf stage to maximize yield.

FORAGE, FODDER AND STRAW OF CEREAL GRAINS GROUP*

GRASS FORAGE, FODDER, AND HAY GROUP*

NONGRASS ANIMAL FEEDS (FORAGE, FODDER, STRAW, AND HAY)*

*not labeled for this use in California.

HERBS/SPICES
(Outdoor and indoor including those grown as bedding plants)

MINTS
(Outdoor and enclosed including those grown as bedding plants)

OILSEED (does not include peanut, or soybean)
For ground applications for foliar disease control. Consult your local Extension specialist or crop consultant regarding the optimum timing of fungicide applications.

STALK, STEM, AND LEAF PETIOLE VEGETABLES*
Asparagus, Celery

TROPICAL AND SUBTROPICAL FRUITS, EDIBLE PEEL*
Olive, Date, Fig, Guava

TROPICAL AND SUBTROPICAL FRUITS, INEDIBLE PEEL*
Atemoya, Avocado, Banana, Dragon Fruit, Lychee, Mango, Papaya, Passionfruit, Plantain, Pineapple, Pomegranate, Prickly Pear, Sugar Apple

ARTICHOKE, GLOBE*

HOPS AND DRIED CONES
Minimum spray volumes for hop growth stages are as follows:

Emergence to Training: Apply this at the above labeled rate per acre a minimum spray volume of 20 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage.

Training to Wire-Touch: Apply this at the above labeled rate acre using a minimum spray volume of 50 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage.

Wire-Touch through Harvest: Apply this at the above labeled rate a minimum of 100 gallons of water per acre. Higher water volumes may be necessary to achieve thorough coverage after side arms develop. Apply adequate spray volume to achieve complete spray coverage. Use the higher rates when moderate to high disease pressure is present or expected.

PEANUT

QUINOA

SUGARCANE

GRASS SEED

*not labeled for this use in California.

HEMP

ORNAMENTAL GRASSES

ORNAMENTAL PLANTS

TOBACCO
Avoid excessive amounts of water that result in spray material dripping from the foliage. If necessary, repeat of the labeled rate of this product at a 7- to 10-day interval

TURFGRASS
Bluegrass, Bentgrass, Bermudagrass, Dichondra, Fescue, Orchardgrass, *Poa annua,* Ryegrass, St. Augustine, Zoysia mixtures, and other new or established grasses

This product aids in control of turf diseases and improves turf quality. For improved performance under moderate to severe disease pressure, use shorter spray intervals or use this product in a tank mix or rotational program with other registered fungicides.

Spray water volumes must be of at least 2 gallons of water per 1000 sq. ft. Under moderate to high disease pressure, tank mix with other registered fungicides.

FLOWERING PLANTS

BEDDING PLANTS

TI PALM*

SHADE AND ORNAMENATAL TREES AND FORESTS

TREE FARMS AND PLANTATIONS
Conifers, including Christmas Trees and Deciduous Trees

* not labeled for this use in California.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Avoid freezing.

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

Container Handling:
For plastic containers less than or equal to 5 gallons: **Nonrefillable container**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For plastic containers greater than 5 gallons: **Nonrefillable container**. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

Pro Farm Group is a member of the Ag Container Recycling Council. Visit http://www.acrecycle.org/contact.html for information on how to arrange pick-up of this empty pesticide container.

WARRANTY

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

US Patent No. 9,125,419
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1530 Drew Ave., Davis, CA 95618
1-877-664-4476
info@profarmgroup.com

PULL HERE TO OPEN

STARGUS®

BIOFUNGICIDE

Broad-spectrum biofungicide/bactericide for control or suppression of fungal and bacterial plant diseases

Active ingredient: *Bacillus amyloliquefaciens* strain F727* cells and spent fermentation media 96.4%
Other ingredients: 3.6%
Total 100.0%

*Contains a minimum of 1 X 10^9 cfu/ml of product

EPA Reg. No.: 84059-28

GROUP BM02 FUNGICIDE

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
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.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.
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.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For non-emergency information on product usage, for example, call (1-877-644-4476), Monday through Friday, 9a.m. to 5 p.m Pacific Time. For medical emergencies call your poison control center at 1-800-222-1222.	

CAN BE USED IN ORGANIC PRODUCTION

OMRI® LISTED

For Organic Use

MBI-LBL-121 r5_v2

Manufactured by:

ProFarm™

1530 Drew Ave, Davis, CA 95618 USA
1-877-664-4476; info@profarmgroup.com

Lot No: Printed on Container

☐ EPA Est. No. 84059-MI-001
☐ EPA Est. No. 91121-DEU-001
☐ EPA Est. No. 95554-OH-2
☑ EPA Est. No. 62768-IL-2

NET CONTENTS:
☐ 1 gallon
☑ 2.5 gallons
☐ 30 gallons
☐ 50 gallons
☐ 265 gallons

PN105402

PF 252462