



Bacillus subtilis strain IAB/BS03*	0.08%
OTHER INGREDIENTS:	99.92%
TOTAL:	100.00%

*Contains not less than 1 X 107 CFU/mL of product.

KEEP OUT OF REACH OF CHILDREN **CAUTION**

See booklet and back panel for precautionary statements, first aid and directions for use.

EPA Reg. No.: 91473-1-88783

EPA Establishment No.: 91473-ESP-001

Net Contents: 2.5 gallons







Distributed by: Summit Agro USA LLC 240 Leigh Farm Road, Suite 415

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Manufactured by: Seipasa, S.A. C/Almudevar, 2

22240 Tardienta (Huesca), SPAIN



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 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 information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 8:00 AM to 12:00 PM Pacific Time. In the event of a medical emergency, call your poison control center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals - CAUTION. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes 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 and socks
- Protective evewear

Mixers/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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 handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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

DIRECTIONS FOR USE

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

Agricultural Use Requirements

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

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.

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, waterproof gloves, protective eyewear, shoes and socks.

Product Information: AVIV is a broad-spectrum biological fungicide for the prevention, control or suppression of soil-borne and foliar diseases on listed agricultural crops. AVIV contains the active ingredient Bacillus subtilis IAB/ISBO3, 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. AVIV is a fungicide non-specific to the crop. AVIV is most effective when applied prior to the onset of disease. Use AVIV in combination and/or rotation with chemical fungicides to enhance disease control. For use on listed 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: AVIV has multiple modes of action in preventing, controlling or suppressing plant diseases. It produces a broad-spectrum group of lipopeptides 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. Bacillus subtilis strain IAB/BS03 is known to stimulate phytohormones, which trigger the plant's systemic resistance to disease (Induced Systemic Resistance) for prolonged periods of time. It is a functicide non-specific to the crops.

PGPR (Plant Growth-Promoting Rhizobacteria): Bacillus subtilis strain IAB/BS03 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.

Integrated Pest Management: Integrating AVIV into an overall pest management strategy and following best management practices (or practices known to reduce disease development) makes it less likely that disease will be established. Specific IPM strategies developed for your crop and location may be available from the Extension Service or other local agricultural authorities.

Mixing and Application Instructions:

MIXING: Dilute AVIV with water and apply with conventional spray equipment, sprinkler irrigation or other listed application methods. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of AVIV to the tank. Finish filling the tank to the desired volume to obtain the proper spray concentration. Use spray mixture immediately. Do not allow spray mixture to stand overnight or for prolonged periods.

APPLICATION: Apply AVIV to the point of saturation of the soil or growing media. Good coverage and wetting are required. The amount of spray mixture to apply will vary depending on the type of crop. Most row crops will require up to 100 gallons of spray mixture per acre. Apply in sufficient water to achieve thorough coverage.

COMPATIBILITY: AVIV may be tank mixed with some fungicides. Use caution when tankmixing AVIV with more than one product. 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. It is always advisable to conduct a spray compatibility test when you plan to mix this product with another product. To determine the physical compatibility of this product with other products, use a jar test. Using a one quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry formulations first, then flowables, and then emulsifiable concentrates last. After thorough mixing. allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding products to the spray tank.

AVIV has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties in all mixtures and combinations is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

Foliar Application Use Directions - Ground and Aerial: Apply AVIV as a foliar spray by ground and by air. Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at a sufficient spray volume to ensure complete coverage.

For low volume applications, where less than 100 gallons of water is used, apply at a rate of 15 - 25 fluid ounces of AVIV per acre. See specific instructions for crops below.

AERIAL DRIFT REDUCTION INFORMATION

GENERAL: Avoiding spray drift at the application site is the responsibility of the applicator (specifically, see **SENSITIVE AREAS** section for the requirement regarding spray drift and honey bees). The interaction of many equipment- and weather-related factors determines 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. Do not apply directly to aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

INFORMATION ON DROPLET SIZE: Use only medium or coarser spray nozzles according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size. The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that will 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: Volume - 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 specified 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.

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 to droplets to evaporation and wind. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.

SWATH ADJUSTMENT: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the upwind 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: Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph. 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, blooming crops or weeds that bees are visiting, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

Soil Treatment Use Directions: Apply AVIV by soil drench, in-furrow spray, or soil injection to improve plant health and to protect against certain soil-borne diseases.

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

Soil Drench Applications

Apply AVIV at a concentration of 10 - 30 fluid ounces per 100 gallons of water, and at a sufficient rate to thoroughly soak the growing media and root zone. Make an initial application during or shortly after transplant to control soil-borne diseases, reduce transplant shock, induce disease resistance, and to promote root growth. Multiple drench applications can be made on a 10- to 14-day schedule.

Shanked-In and Injected Applications

Shank or inject AVIV at a concentration of 10 – 30 fluid ounces per 100 gallons of water into the soil alone, or with most types of liquid nutrients.

In-Furrow Applications

Apply AVIV at planting as an in-furrow spray. Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at 5 – 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.

CHEMIGATION USE DIRECTIONS:

AVIV may be applied by chemigation.

Spray preparation

First prepare a suspension of AVIV in a mix tank. Fill tank ½ to ¾ the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of AVIV, and then the remaining volume of water. Then set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of AVIV into the irrigation water line so as to deliver the desired rate per acre. Inject the suspension of AVIV with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. Direct any questions on calibration to your State Extension Service Specialists, to equipment manufacturers or other expects.

Do not combine AVIV with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. AVIV has not been fully evaluated for compatibility with all adjuvants or surfactants. It is advisable to conduct a spray compatibility test if a mixture with adjuvants or surfactants is planned.

General Requirements

- Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; flood (basin); furrow; border, or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 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

- 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 (RPZ), back flow preventer 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.
- 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

- 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.
- 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.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

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

- 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.
- 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 back flow.
 - 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-
 - 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 fitted with a system interlock.

Specific Requirements for Drip (Trickle) Chemigation

- 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.
- 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.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Application Instructions for All Types of Chemigation

- 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.
- 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.
 - 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

AVIV may be used in greenhouse plug production and hydroponics operations.

adding product as required. See the Spray Preparation section.

Application Rates for Selected Crops: Use AVIV to prevent, control or suppress a broad range of plant diseases, as well as induce the natural defense system of the treated plants listed below.

Apply 10 - 30 fluid ounces of AVIV per 100 gallons of water.

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Artichoke	Powdery Mildew (Erysiphe	Foliar (Ground)	10 - 30 fluid ounces	For ground applications, apply in 100 gallons of water per acre.
	cichoracearum) (Leveillula taurica) Ramularia Leaf Spot (Ramularia			Apply this product preventatively or as the first sign of disease symptoms are visible. Reapply every 7 to 14 days.
	cynarae)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
		Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
				Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
		Chemigation	10 - 30 fluid ounces	Apply through irrigation immediately after transplant and at 14-day intervals or begin 14 days after transplant when soil drench applications are used.
Asparagus	Botrytis Blight (Botrytis cinerea) Rust (Puccinia aspargi)	Foliar (Ground)	10 - 30 fluid ounces	For ground applications, apply this product in 100 gallons of water per acre.
	Trace (F doos na dopargi)			Apply preventatively or when the first disease symptoms are visible and apply every 7 to 14 days.
				For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
		Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
				Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Berries, including:	Botrytis Blight (Botrytis cinerea)	Foliar (Ground)	10 - 30 fluid ounces	Apply in 100 gallons per acre.
Blackberry Blueberry	Mummy Berry (Monilinia vaccinii- corymbosi)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Bushberry Caneberry Cranberry	Alternaria Fruit Rot (Alternaria spp.) Anthracnose Fruit Rot (Colletotrichum			Mummy Berry – Begin applications at bud break stage of development. Apply preventatively and repeat on a 7- to 10-day interval or as needed.
Currants	acutatum)			Cranberry: Do not apply to flooded fields.
Elderberry Gooseberry Huckleberry	Bacterial Canker (Pseudomonas syringae) Leaf Rust (Pucciniastrum vaccinii)			Botrytis Blight – Apply this product preventatively prior to or at first sign of disease symptoms. Reapply every 7 to 14 days or as needed.
Loganberry				Bacterial Canker - Apply prior to Fall rains and repeat applications
Raspberry	Leaf Spot and Blotch (Mycosphaerella spp.) (Septoria spp.)			during dormancy before Spring growth. This product can be tank mixed with other registered pesticides for improved control of bacterial canker.
	Phomopsis Leaf Spot, Twig Blight and Fruit Rot (Phomopsis spp.)			Anthracnose Fruit Rot and Alternaria Fruit Rot on blueberries – Apply at green tip and continue on a 7- to 10-day interval.
	Powdery Mildew (Microsphaera alni)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
	Spur Blight (Didymella spp.) (Phoma spp.)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Bulb Vegetables,	Botrytis Leaf Blight (Botrytis squamosa)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventively in 100 gallons of water per acre.
including: Garlic	Botrytis Neck Rot (Botrytis spp.)			Repeat applications at 7- to 14-day intervals.
Leek Onion (Bulb and	Onion Purple Blotch (Alternaria porri) Downy Mildew (Peronospora spp.)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Green) Shallot And other bulb vegetable crops	Powdery Mildew (Erysiphe spp.) Rust (Puccinia porri) Stemphylium Leaf Blight (Stemphylium vesicarium)	Soil Drench	10 - 30 fluid ounces	Apply at a concentration of 10 - 30 fluid ounces per 100 gallons of water, thoroughly seaking the growing media and root zone. Apply during or shortly after transplant to reduce transplant shock, suppress soil-borne disease and improve root growth. Multiple drench applications can be made on a 10- to 14-day interval.
	Fusarium spp. Pythium spp.	In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at 5 – 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.
	Rhizoctonia spp.	Plant Dip	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and use as a pre-plant dip immediately prior to transplant.
		Chemigation	10 - 30 fluid ounces	Apply through irrigation immediately after transplant and at 14-day intervals or begin 14 days after transplant when soil drench applications are used.
Cereal Grains, including:	Powdery Mildew (Erysiphe graminis) Bacterial Blight and Streak	Foliar (Ground)	10 - 30 fluid ounces	To optimize disease control and to maximize yields, apply in 15 – 40 gallons of water per acre.
Barley	(Xanthomonas spp.)			Apply preventatively or when disease symptoms first appear. Repeat
Buckwheat Grain Milo	heat Brown Rot, Leaf Spots & Smuts (Ceratobasidium spp.) (Cercospora			applications on a 7- to 14-day interval depending upon crop growth and disease pressure.
Oat Millet	spp.) (Drechslera spp.) Rice Blast (Pyricularia grisea)			When plants are under high disease pressure, tank mix this product with another registered fungicide for more effective control.
Rice	Rust (Puccinia spp.)			Rice: Do not apply to flooded fields.
Rye Sorghum	Septoria Leaf Spot (Septoria spp.)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
Triticale Wheat	Sheath Spot and Blight (Rhizoctonia oryzae) (Thanatephorus cucumeris)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
	Stem Rot (Sclerotium oryzae)			Tought, order, it as it days.
	Smut (Tilletia barclayana)			
Citrus Fruits, including:	Bacterial Canker (Xanthomonas spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply in 100 gallons per acre.
Calamondin	Alternaria Brown Spot (Alternaria alternata)			Begin application when conditions are conducive to disease development. Repeat on 7- to 10-day intervals or as needed.
Citron Citrus hybrids Grapefruit	Bacterial Blast (Pseudomonas syringae) Black Spot (Guignardia citricarpa)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Kumquat Lemon	(Phyllosticta citricarpa)			To treat Bacterial Canker (Xanthomonas spp.), tank mix this product with another registered pesticide for more effective control.
Lime	Greasy Spot (Mycosphaerella citri)	Folior (Apris "	10 - 30 fluid ounces	<u> </u>
Mediterranean mandarin	Melanose (Diaporthe citri) Postbloom Fruit Drop (Colletotrichum	Foliar (Aerial)	10 - 30 tiula ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
Orange, sour and sweet	acutatum)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Pummelo Satsuma mandarin	Scab (Elsinoe australis) (Elsinoe fawcetti)			To treat Bacterial Canker (Xanthomonas spp.), tank mix this product with another registered pesticide for more effective control.

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Brassica (Cole), Leafy Vegetables including: Amaranth Broccoli	Powdery Mildew (Erysiphe cruciferarum) (Erysiphe polygoni) Alternaria Leaf Spot (Alternaria spp.) Downy Mildew (Peronospora parasitica)	Foliar (Ground)	10 - 30 fluid ounces	Apply in 50 - 100 gallons per acre. Begin application when conditions are conducive to disease development. Repeat on 7- to 10-day intervals or as needed. For low volume applications, use 15 - 25 fluid ounces per acre.
Broccoli Rabe Brussels Sprouts Cabbage Chinese Broccoli Chinese Cabbage (Bok Choy) Chinese Cabbage (Napa) Chinese Mustard Cabbage (Gal Choy) Cauliflower Cavalo broccolo Collards Kalle Kohlnabi Mustard Greens Mustard Greens Mustard Greens Mustard Greens	Pin Rot Complex (Alternaria, Xanthormonas) Xanthormonas Leaf Spot (Xanthormonas campestris)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre. Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Corn, including: Sweet Corn Field Corn	Anthracnose Leaf Blight (Colletotrichum graminicola) Eye Spot (Aureobasidium zeae)	Foliar (Ground)	10 - 30 fluid ounces	Apply in 15 – 40 gallons per acre. Begin application when conditions are conducive to disease development. Repeat on 7- to 10-day intervals or as needed.
Popcorn Silage Corn Seed Corn	Gray Leafspot (Cercospora zeae- maydis) Northern Leaf Blight (Cochiliobus carbonum) Southern Leaf Blight (Cochiliobus heterostroohus)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre. Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Cotton	Alternaria Leaf Spot, Boll Rot (Alternaria spp.) Anthracnose, Boll Rot (Anthracnose spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply in 15 – 40 gallons per acre. Begin application when conditions are conducive to disease development. Repeat on 7- to 10-day intervals or as needed.
	Ascochyta Blight, Boll Rot (Ascochyta spp.) Cercospora Blight and Leaf Spot (Cercospora spp.) Diplodia Boll Rot (Diplodia spp.) Hard Lock, Boll Rot (Fusarium spp.) Leaf Spot (Corynespora cassiicola) Phoma Blight, Boll Rot (Phoma spp.) Rust (Puccinia spp.) (Phykopsora spp.) Stemphylium Leaf Spot (Stemphylium spp.)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre. Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Cucurbit Vegetables Includes all types	Powdery Mildew (Erysiphe cichoracearum) (Sphaerotheca fuliginea)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water per acre or at first sign of disease symptoms. Increase water volume as plant size increases.
and hybrids of: Chayote Chinese Waxgourd	Anthracnose (Colletotrichum lagenarium) Alternaria Leaf Spot (Cercospora			Reapply on a 7- to 14-day interval depending on plant growth and disease pressure. Use shorter spray intervals for greenhouse cucurbits when under high disease pressure.
Cucumber Citron Melon Gherkin	citrulina) Downy Mildew (Pseudoperonospora cubensis)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Pumpkin Watermelon Edible Gourd:	Gummy Stem Blight (Didymella bryoniae)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
Chinese Okra Cucuzza Hyotan	Phytophthora Blight (Phytophthora capsici)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Mormordica spp. Balsam Apple Balsam Pear Bitter Melon	Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctonia spp.	Soil Drench	10 - 30 fluid ounces	Apply at a concentration of 10 -30 fluid ounces per 100 gallons of water, throughly soaking the growing media and root zone. Apply during or shortly after transplant to reduce transplant shock, suppress soil-borne disease and improve root growth. Multiple drench applications can be made on a 10- to 14-day interval.
Chinese Cucumber Muskmelon: Cantaloupe		In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at 5 – 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.
Casaba Crenshaw Melon Golden Pershaw		Plant Dip	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and use as a pre-plant dip immediately prior to transplant.
Melon Honeydew Melon Honey Balls Mango Melon Persian Melon Pineapple Melon Santa Claus Melon Snake Melon		Chemigation	10 - 30 fluid ounces	Apply through irrigation immediately after transplant and at 14-day intervals or begin 14 days after transplant when soil drench applications are used.
Summer Squash: Crookneck Squash Scallop Squash Straightneck Squash Vegetable Marrow Zucchini				
Winter Squash: Acorn Squash Butternut Squash Calabaza Hubbard Squash Spaghetti Squash				
And other cucurbit crops				

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Fruiting Vegetables, including:	Bacterial Blight (Xanthomonas spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water per acre or at first sign of disease symptoms. Increase water volume as plant size increases.
Eggplant Okra Pepper	Bacterial Spot (Xanthomonas spp.) Bacterial Speck (Pseudomonas syringae)			Reapply on a 7- to 10-day interval depending on plant growth and disease pressure. Use shorter spray intervals for greenhouse cucurbits when under high disease pressure.
Tomato Tomatillo	Black Mold (Alternaria alternata) Early Blight (Alternaria solani)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Ground Cherry	Gray Mold (Botrytis cinerea)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
	Late Blight (Phytophthora capsici) Powdery Mildew (Erysiphe spp.) (Leveillula taurica) (Oidiopsis taurica) (Sphaerotheca spp.)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
	Target Spot (Corynespora cassiicola)	0.10	40.00.0.1	A
	Fusarium spp. Phytophthora spp.	Soil Drench	10 - 30 fluid ounces	Apply at a concentration of 10 – 30 fluid ounces per 100 gallons of water, thoroughly soaking the growing media and root zone. Apply during or shortly after transplant to reduce transplant shock,
	Rhizoctonia spp.			suppress soil-borne disease and improve root growth. Multiple drench applications can be made on a 10- to 14-day interval.
	Verticllium spp.	In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at 5 – 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.
		Plant Dip	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and use as a pre-plant dip immediately prior to transplant.
		Chemigation	10 - 30 fluid ounces	Apply through irrigation immediately after transplant and at 14-day intervals or begin 14 days after transplant when soil drench applications are used.
Grapes	Powdery Mildew (Uncinula necator)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventively in 100 gallons of water per acre or the first signs of disease symptoms.
	Angular Leaf Spot (Mycosphaerella angulata)			Repeat applications at 7- to 14-day intervals depending on crop growth
	Anthracnose (Elsinoe ampelina)			and disease pressure. For low volume applications (less than 100 gallons of water per acre),
	Botrytis Bunch Rot (Botrytis cinerea)			use 15-25 fluid ounces per acre.
	Black Rot (Guignardia bidwellii)			
	Downy Mildew (Plasmopara viticola) Eutypa (Eutypa lata)			
	Leaf Blight (Pseudocercospora vitis)			
	Phomopsis Fruit Rot (Phomopsis viticola)			
	Ripe Rot (Colletotrichum gloeosporioides)			
	Sour Rot (Alternaria tenuis) (Aspergillus spp.) (Botrytis cinerea) (Cladosporium herbarum) (Penicillium spp.) (Rhizopus arrhizus)			
Grass Seed	Powdery Mildew (Erysiphe gramminis) (Oidium spp.) (Podosphaera spp.) (Sphaerotheca spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water per acre when disease symptoms are first visible or when environmental conditions are conducive to rapid disease development. Reapply on a 7-day interval or as needed.
	Rust (Puccinia spp.)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Hops	Downy Mildew (Pseudoperonosperora humili) Powdery Mildew (Sphaerotheca	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water or when environmental conditions are conducive to rapid disease development. Reapply on a 7-day interval or as needed.
	macularis)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Leafy Vegetables, including:	Downy Mildew (Bremia lactuca) (Peronospora spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water or when environmental conditions are conducive to rapid disease development. Reapply on a 7- to 14-day interval or as needed.
Arugula Celerv	Bacterial Blight/Rot (Xanthomonas spp.)			Cress: Do not apply to flooded fields
Chervil	Cercospora Leafspot (Cercospora spp.)			For concentrated ground applications, apply this product at 1 – 3 quarts
Cilantro Corn Salad	Late Blight (Septoria apiicola)			per acre in a minimum of 10 gallons of water per acre.
Cress Dandelion	Pink Rot (Sclerotinia sclerotiorum) Powdery Mildew (Erysiphe			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Dock Edible-leaved	cichoracearum)	In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at
Chrysanthemum Endive	Sclerotinia Head and Leaf Drop (Sclerotinia minor) (Sclerotinia sclerotiorum)			5 – 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.
Fennel Head Lettuce	White Rust (Albugo occidentalis)			
Leaf Lettuce Parslev				
Purslane				
Radicchio Rhubarb				
Spinach Swiss Chard				
Watercress				
Legumes, succulent or dried (not including	Bacterial Blight (Xanthomonas campestris)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water or when environmental conditions are conducive to rapid disease development. Reapply on a
soybean or peanut):	Gray Mold (Botrytis cinerea)			7-day interval or as needed.
Chickpea Dry Bean Garbanzo Bean	Pythium (aerial blight phase) (Pythium spp.)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Garden Pea	Powdery Mildew (Erysiphe spp.)			
Green Bean Lentil Lima Bean	Rust (Puccinia spp.) (Uromyces appendiculatus)			
Pea	White Mold (Sclerotinia sclerotiorum)			
Shell Bean Snap Bean		In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at
Split Pea	Phytophthora spp.			5 – 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.
And other legume	Pythium spp.			
crops	Rhizoctonia spp.			

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Herbs and Spices, including:	Downy Mildew (Peronospora spp.) Powdery Mildew (Erysiphe spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water per acre or at first sign of disease symptoms.
Angelica Balm	Rust (Puccinia menthae)			Reapply on a 7- to 10-day interval depending on plant growth and disease pressure.
Basil Borage				For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Burnet Chamomile Catnip		Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
Chervil Chive Cilantro Clary				Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Coriander Costmary Curry Dillweed				
Horehound Hyssop Lavender Lemongrass				
Lovage Marjoram Nasturtium Parsley (dried)				
Rosemary Sage Savory (summer and				
winter) Sweet Bay Tansy				
Tarragon Thyme Wintergreen Woodruff				
Wormwood Mints	Downy Mildew (Peronospora spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water per acre or at first sign of disease symptoms.
Peppermint	Powdery Mildew (Erysiphe spp.) Rust (Puccinia menthae)			Reapply on a 7- to 10-day interval depending on plant growth and disease pressure.
				For low volume applications (less than 100 gallons of water per acre), use 15 – 25 fluid ounces per acre.
		Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
				Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Oil Seed Crops, including:	Bacterial Pustule (Xanthomonas spp.) Bacterial Speck (Pseudomonas syringe	Foliar (Ground)	10 - 30 fluid ounces	To optimize disease control and maximize yields, apply this product preventatively in 15 – 40 gallons of water per acre.
Canola Castor	pv. glycinea) Brown Spot (Septoria glycines)			Consult your local Extension Specialist or Crop Consultant regarding the optimum timing of fungicide applications.
Flax Rapeseed	Cercospora Leaf Spot (Cercospora spp.)			
Safflower Sesame Sunflower	Downy Mildew (Peronospora mansherica)			
(does not include cotton, peanut or	Pod and Stem Blight (Diaporthe phaseolorum var. sojae) (Phomopsis longicola)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
soybean)	White Mold/Sclerotinia Stem Rot (Sclerotinia sclerotiorum)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Olive	Olive Knot (Pseudomonas savastanoi)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water per acre.
				Repeat application at 7- to 14-day intervals or as needed.
				For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Ornamental Plants	Anthracnose (Colletotrichum spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water and repeat on 7- to 14-day
Herbaceous Ornamentals Flowering Plants	Bacteria (Erwinia spp.) (Pseudomonas spp.) (Xanthomonas spp.)			intervals, or as needed. Use this product to control certain diseases of container, bench, flat, plug, bed, or field-grown ornamentals in greenhouses, shade houses, outdoor nurseries, retail nurseries, and
Foliage Plants	Black Spot of Rose (Diplocarpon rosae)			other landscape areas. For low volume applications (less than 100 gallons of water per acre), use 15 – 25 fluid ounces per acre.
Woody Ornamentals	Blossom Blight (Monilinia spp.)	Soil Drench	10 - 30 fluid ounces	Apply at a concentration of 10 - 30 fluid ounces per 100 gallons of water,
Broadleaves, Shrubs and trees	Downy Mildew (Peronospora spp.) (Plasmopara viburni)	3011 DIEIGH	10 - 30 lidid ourices	Horoughly soaking the growing media and root zone. Apply during or Ishortly after transplant to reduce transplant shock, suppress soilborne
Conifers, Shrubs and trees	Gray Mold (Botrytis cinerea)			disease and improve root growth. Multiple drench applications can be made on a 10- to 14-day interval.
	Leaf Spot (Alternaria spp.) (Cercospora spp.) (Entomosporium spp.)	Diant Dia	10 - 30 fluid ounces	
	(Myrothecium spp.) (Septoria spp.)	Plant Dip	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of Aviv in 100 gallons of water and use as a pre- plant dip immediately prior to transplant.
	Powdery Mildew (Erysiphe spp.) (Oidium spp.) (Podosphaera spp.) (Sphaerotheca spp.)			
	Rust (Puccinia spp.)	Chemigation	10 - 30 fluid ounces	Apply through irrigation immediately after transplant and at 14-day
	Scab (Venturia spp.)			intervals or begin 14 days after transplant when soil drench applications are used.
	Fusarium spp.			a.o dood.
	Phytophthora spp.			
	Pythium spp.			
	Rhizoctonia spp.			
	Verticillium spp.			
Peanut	Aspergillus Crown Rot (Aspergillus niger)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water and repeat on 7- to 14-day intervals, or as needed.
	Rhizoctonia Foliar Blight, Peg, and Root Rot (Rhizoctonia solani)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
	White Mold (Sclerotium rolfsii)			
	Aspergillus Crown Rot (Aspergillus niger)	Soil Drench	10 - 30 fluid ounces	Apply at a concentration of 10 - 30 fluid ounces per 100 gallons of water, thoroughly soaking the growing media and root zone.
	Fusarium spp.			Apply during or shortly after transplant to reduce transplant shock, suppress soil-borne disease and improve root growth. Multiple drench
	Phytophthora spp.			applications can be made on a 10- to 14-day interval.
	Pythium spp.	In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at
	Rhizoctonia spp.			5 – 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.
	Verticillium spp.			Delote the seeds are covered.
	White Mold (Sclerotium rolfsii)			

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Pome Fruits, including:	Powdery Mildew (Podosphaera leucotricha)	Foliar (Ground)	10 - 30 fluid ounces	Apply in 100 gallons of water per acre. Begin applications when conditions are conducive to disease development. Repeat applications on 3- to 10-day intervals or as needed.
Apple Crabapple Loquat Mayhaw Pear Pear, oriental Quince	Alternaria Blotch (Alternaria mali) Apple Scab (Venturia inaequalis) Bitter Rot (Colletotrichum spp.) Black Rot / Frogeye Leaf Spot (Botryosphaeria obtusa) Bot Rot (Botryosphaeria dothidea) Brooks Spot (Mycosphaerella pomi) Bull's Eye Rot (Neofabraea spp.) Cedar-Apple Rust (Gymnosporangium juniper-virginianae) Fire Blight (Erwinia amylovora) Flyspeck (Zygophiala jamaicensis)			on 3- to 10-day intervals or as needed. For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre. Use high label rate and shorter spray intervals when conditions are conducive to rapid disease development. To treat Fire Blight (Erwinia amylovora), tank mix this product with another registered pesticide for more effective control.
Root and Tuber Vegetables.	Sooty Blotch (Geastrumia polystigmati) (Leptodontium elatius) (Peltaster fructicola) White Rot (Botryosphaeria dothidea) Bacterial Leaf Blight (Xanthomonas campestris)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 100 gallons of water and repeat on 5- to 10-day intervals, or as needed.
including: Beet Carrot Cassava Ginger Ginseng	Black Root Rot / Black Crown Rot (Alternaria spp.) Downy Mildew (Peronospora spp.) Early Blight (Alternaria spp.) Grav Mold (Botrvtis cinerea)			Begin applications soon after emergence or transplant and when conditions are conducive to disease development. Use higher rates and shorter intervals when conditions favor rapid disease development. For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
Horserädish Potato Radish Potato Late Blight (Phytophthora infestans) Radish Sweet potato Turnip Yam Glubroot (Plasmodionbora brassicae)	Soil Drench	10 - 30 fluid ounces	Apply at a concentration of 10 - 30 fluid ounces per 100 gallons of water, thoroughly soaking the growing media and root zone. Apply during or shortly after transplant to reduce transplant shock, suppress soil-borne disease and improve root growth. Multiple drench applications can be made on a 10- to 14-day interval.	
	Common Scab (Streptomyces scabies) Fusarium spp.	In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at 5 - 15 gallons per acre, directing the spray into the seed furrow just before the seeds are covered.
	Phytophthora spp. Pythium spp. Rhizoctonia spp. Verticillium spp.	Chemigation	10 - 30 fluid ounces	Apply through irrigation immediately after transplant and at 14-day intervals or begin 14 days after transplant when soil drench applications are used.

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Soybean	Aerial Web Blight (Rhizoctonia solani)	Foliar (Ground)	10 - 30 fluid ounces	To optimize disease control and maximize yields, apply this product
	Alternaria Leafspot (Alternaria spp.)			preventatively at 10 – 30 fl. oz in 15 – 40 gallons of water per acre.
	Anthracnose (Colletotrichum truncatum)			Consult your local Extension Specialist or Crop Consultant regarding the optimum timing of fungicide applications.
	Asian Soybean Rust (Phakopsora pachyrhizi)			To treat Asian Soybean Rust (Phakopsora pachyrhizi), tank mix this product with another registered fungicide for more effective control.
	Brown Spot (Septoria glycines)	Foliar (Aerial)	10 00 fluid oursess	For early applications, and table and to a minimum of F college of
	Cercospora Blight (Cercospora kikuchii)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
	Frogeye Leaf Spot (Cercospora sojina)			Apply preventatively or when the first disease symptoms are visible and
	Pod and Stem Blight (Diaporthe spp.)			reapply every 7 to 14 days.
	Septoria Brown Spot (Septoria glycines)			To treat Asian Soybean Rust (Phakopsora pachyrhizi), tank mix this product with another registered fungicide for more effective control.
	White Mold (Sclerotinia sclerotiorum)			, ,
	Fusarium spp.	In-Furrow	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and apply at 5 - 15 gallons per acre, directing the spray into the seed furrow just
	Phytophthora spp.			before the seeds are covered.
	Pythium spp.			
0. 5 ::	Rhizoctonia spp.	F. F. (O	40.00.0.1	
Stone Fruits, including:	Alternaria Spot/Fruit Rot (Alternaria alternata)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventively in 100 gallons of water when conditions are conducive to disease development. Apply on a 7- to 10-day spray linterval or as needed.
Apricot Cherry, sweet and tart	Anthracnose (Colletotrichum spp.)			For low volume applications (less than 100 gallons of water per acre),
Nectarine	Bacterial Canker (Pseudomonas spp.)			use 15-25 fluid ounces per acre.
Peach Plum	Bacterial Spot (Pseudomonas spp.)			Bacterial Blight - Apply postharvest before Fall rains.
Plumcot Prune plum	Brown Rot Blossom Blight and Fruit Rot (Monilinia spp.)			Brown Rot Blossom Blight – Apply at early bloom and repeat on a 7-day schedule through petal fall or as needed.
	Cercospora Leaf Spot (Cercospora spp.)			Powdery Mildew – Begin applications at popcorn stage and repeat on a 7- to 10-day interval or as needed.
	Cherry Leaf Rot (Blumeriella jaapii)			Scab - Begin applications at petal fall and repeat on a 7- to 10-day
	Gray Mold (Botrytis cinerea)			interval or as needed.
	Jacket Rot, Green Fruit Rot (Botrytis cinerea, Monilinia spp., Sclerotinia sclerotiorum)			
	Powdery Mildew (Podosphaera spp.) (Sphaerotheca pannosa)			
	Rust (Tranzschelia discolor)			
	Rusty Spot (Podosphaera leucotricha)			
	Scab (Cladosporium carpophilium)			
	Shot Hole (Wilsonomyces carpophilus)			

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Strawberry	Anthracnose (Colletotrichum spp.)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventively in 100 gallons of water when conditions are
	Gray Mold (Botrytis cinerea)			conducive to disease development. Apply on a 7- to 10-day spray interval or as needed.
	Leaf Spot (Mycosphaerella fragariae)			For low volume applications (less than 100 gallons of water per acre),
	Phomopsis Leaf Blight (Phomopsis obscurans)			use 15-25 fluid ounces per acre.
	Powdery Mildew (Sphaerotheca macularis)			
	Black Root Rot (Rhizoctonia spp.) (Pythium spp.) (Fusarium spp.) (Cylindrocarpon spp.)	Soil Drench	10 - 30 fluid ounces	Apply at a concentration of 10 - 30 fluid ounces per 100 gallons of water, thoroughly soaking the growing media and root zone. Apply during or shortly after transplant to reduce transplant shock,
	Phytophthora Root Rot and Crown Rot (Phytophthora spp.)			suppress soil-borne disease and improve root growth. Multiple drench applications can be made on a 10- to 14-day interval.
	Verticillium Wilt (Verticillium spp.)	Plant Dip	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and use as a pre-plant dip immediately prior to transplant.
	Fusarium spp.	01	40.00 # 41	Parket all and a second
	Pythium spp.	Chemigation	10 - 30 fluid ounces	Apply through irrigation immediately after transplant and at 14-day intervals or begin 14 days after transplant when soil drench applications
	Rhizoctonia spp.			are used.
Sugar Beets	Powdery Mildew (Erysiphe betae) (Erysiphe polygoni)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 15 – 40 gallons of water per acre by ground or air.
	Leaf Spot (Cercospora beticola)			Consult your local Extension Specialist or Crop Consultant for optimum
	Ramularia (Ramularia spp.)			timing of fungicide applications.
	Rust (Uromyces betae)			
Sugarcane	Brown Rust (Puccinia melanocephela) Orange Rust (Puccinia kuehnii)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in 15 – 40 gallons of water per acre by ground or air.
				Consult your local Extension Specialist or Crop Consultant for optimum timing of fungicide applications.
		Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
				Apply preventatively or when the first disease symptoms are visible and reapply every 7 – 14 days.
Tobacco	Blue Mold (Peronospora tabacina)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventatively in a minimum of 50 gallons of water per acre.
				Consult your local Extension Specialist or Crop Consultant for optimum timing of fungicide applications.
	Fusarium spp.	Plant Dip	10 - 30 fluid ounces	Mix 10 - 30 fluid ounces of AVIV in 100 gallons of water and use as a
	Phytophthora spp.			pre-plant dip immediately prior to transplant.
	Pythium spp.			
	Rhizoctonia spp.			
	Verticillium spp.			

Crops	Target Disease	Application Method	Use rate of Aviv per 100 gallons of Water	Application Instructions
Tree nuts, including: Almond Beech nut Brazil nut Butternut Cashew Chestnut Chinquapin	Walnut Blight (Xanthomonas campestris)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventively in 100 gallons of water when conditions are conducive to disease development. Apply on a 7- to 10-day spray interval or as needed
	Alternaria Late Blight, Alternaria Leaf Spot (Alternaria spp.)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
	Anthracnose (Colletotrichum spp.) (Gnomonia leptostyla) Bacterial Canker (Erwinia nigrifluens)	Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
Filbert (hazelnut) Hickory nut	Botryosphaeria Blight (Botryosphaeria dothidea)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
Macadamia nut Pecan	Brown Rot (Monilinia spp.)			
Walnut, Black and English (Persian)	Jacket Rot, Green Fruit Rot (Botrytis cinerea, Monilinia spp., Sclerotinia sclerotiorum)			
	Eastern Filbert Blight (Anisogramma anomala)			
	Leaf Rust (Tranzschelia discolor)			
	Scab (Cladosporium carpophilium) (Sphaceloma perseae)			
	Shot Hole (Wilsonomyces carpophilus)			
Tropical and Subtropical Fruits,	Anthracnose (Colletotrichum gloeosporioides)	Foliar (Ground)	10 - 30 fluid ounces	Apply preventively in 100 gallons of water when conditions are conducive to disease development. Apply on a 7- to 10-day spray interval or as needed.
Inedible Peel, including (excludes Olive): Avocado Banana Kiwi Mango Papaya Pineapple Plantain Pomegranate	Bacterial Blight (Pseudomonas syringae) (Pseudomonas viridiflava) Bacterial Canker (Xanthomonas campestris)			For low volume applications (less than 100 gallons of water per acre), use 15-25 fluid ounces per acre.
		Foliar (Aerial)	10 - 30 fluid ounces	For aerial applications, apply this product in a minimum of 5 gallons of water per acre.
	Gray Mold (Botrytis cinerea)			Apply preventatively or when the first disease symptoms are visible and reapply every 7 to 14 days.
	Scab (Elsinoe mangiferae)			
	Sigatoka (Mycosphaerella fijiensis)			

Seed Treatment Use Instructions: Apply AVIV as a seed dressing, seed soak or tuber dip at plant. 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.

Seed must be of a good quality, well-conditioned, and free of chaff before treatment.

Prepare no more mixture of AVIV than is needed for immediate application to seed. Refer to the Mixing and Applications Instructions section of this label. Apply AVIV at the rates listed in the Application Rates for Seed Treatment as a water-based mixture. The exact amount of water needed to provide the mixture rate for uniform and complete coverage of the seed surface is difficult to predict because weather conditions, seed type and surface, and equipment used all have a bearing on coverage. Thorough seed coverage and proper equipment calibration are essential for good disease control. Consult a seed treatment specialist regarding rates for the crop seed to be treated with AVIV and for calibration and operation procedures of seed treatment equipment.

Application Rates for Seed Treatment:

Type of seed	Disease	Fluid Ounces of AVIV/100 Gallons of Water	Application Instructions
True seed crops	Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctoria spp. Verticillium spp.	10 - 30 fluid ounces	Apply sufficient diluted product to soak seeds. Apply directly to seeds. Do not rinse. Allow to dry and/or plant soaked seeds.
In-furrow seed treatment at planting	Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctonia spp. Verticillium spp.	10 - 30 fluid ounces	Apply sufficient diluted product to wet the soil covering seeds. Apply by spray, furrow and/or in-furrow irrigation.
Dip treatment for tubers at planting	Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctonia spp. Verticillium spp.	10 - 30 fluid ounces	Pre-dip tubers prior to planting. Apply sufficient product to tubers before planting.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Store in original container only. Keep container tightly closed when not in use.

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

Container Handling:

(For plastic containers less than or equal to 5 gallons)

Nonrefillable 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. If burned, stay out of smoke.

(For plastic containers greater than 5 gallons)

Non'efillable container. Do not reuse o'refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap 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. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

WARRANTY STATEMENT

Summit Agro USA, LLC warrants that this product conformed to its description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions. To the extent consistent with applicable law, buyers and users of this product assume the risk of any use contrary to such directions. To the extent consistent with applicable law, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF GUARANTEE, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. To the extent consistent with applicable law, the Seller's liability for any breach of warranty shall not exceed the purchase price of the material as to which a claim is made.

To the extent consistent with applicable law, Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, or without the fault or negligence of the Seller, or from failure to follow the label.



ACTIVE INGREDIENT:	
Bacillus subtilis strain IAB/BS03*	0.08%
OTHER INGREDIENTS:	99.92%
TOTAL:	100 00%

*Contains not less than 1 X 107 CFU/mL of product.

KEEP OUT OF REACH OF CHILDREN CAUTION

See booklet for directions for use. EPA Reg. No.: 91473-1-88783 EPA Establishment No.: 91473-ESP-001

Net Contents: 2.5 gallons



SUMMITAGRO

Distributed by: Summit Agro USA LLC 240 Leigh Farm Road, Suite 415 Durham, NC 27707

1-984-260-0407, www.summitagro-usa.com

Manufactured by: Seipasa, S.A.

Seipasa, S.A. C/Almudevar, 2 22240 Tardienta (Huesca), SPAIN

Batch No

		FIRST AID
If swa	allowed	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 s	skin or ing	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 in e	yes	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 information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-889-7378, Monday through Friday, 8:00 AM to 12:00 PM Pacific Time. In the event of a medical emercency, call your poison control center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals - CAUTION. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes 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 and socks
- · Protective eyewear

Mixers/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or Pilter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or Pilter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use deterent and hot water. Keep and wash PPE separately from other faundry.

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

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

DIRECTIONS FOR USE

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

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural exides, 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 the label about personal protective equipment (PPE) and restricted-entry interval (PEI). 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.

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.

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, waterproof gloves, protective eyewear, shoes and socks.

STORAGE AND DISPOSAL

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Pesticide Storage: Store in a cool, dry place. Store in original container only. Keep container tightly closed when not in use.

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

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(For plastic containers less than or equal to 5 gallons)

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