

# **GREENHOUSE SEEDLING TREATMENT**

## General Information

Product Information: AgriPhage is a bactericide, comprised of a formulation of bacteriophages to be used as a preventive and curative product for the control of bacterial spot, caused by the bacterium *Xanthomonas campestris* pv. *vesicatoria* and bacterial speck, caused by the bacterium, *Pseudomonas syringae* pv. *tomato* on tomatoes and peppers. Apply AgriPhage as a preventive to protect growing leaf tissue, as a curative when the first disease symptoms are visible, or when conditions are conducive to heavy disease pressure. In the greenhouse apply AgriPhage as a foliar spray or by fogging. Apply AgriPhage in the field with conventional ground spray equipment or via aerial application immediately after planting and as the plant matures. (see MIXING AND APPLICATION INSTRUCTIONS).

Mixing and Application Instructions: MIX WELL PRIOR TO USE Do not apply this product through any type of irrigation system. Ground Tank Mix Instructions: Apply 1-2 pints of AgriPhage per acre in 50-100 gallons of water. If mechanical mixing is available when preparing the spray solution, agitation ensures proper blending. Aerial Tank Mix Instructions: Apply AgriPhage by aerial application to field grown tomato only at the rate of 1-2 pints per acre in a minimum of 5 gallons of water per acre. If mechanical mixing is available when preparing the spray solution, agitation ensures proper blending. Follow all instructions to reduce aerial drift. Compatibility: Do not combine AgriPhage in the spray tank with denaturing agents or copper salts. Apply AgriPhage in approved tank mixes or with an alternating spray program, applying denaturing agents or copper salts 4 days after AgriPhage application, as copper salts and denaturing agents effect bacteriophage survival. AgriPhage is compatible with several commonly used fungicides, liquid fertilizers, herbicides, and insecticides, but has not been fully evaluated with all of these. To ensure compatibility of tank-mix combinations, please consult with an OmniLytics representative prior to tank mixing. AgriPhage 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.

AERIAL APPLICATION INSTRUCTIONS: Apply AgriPhage by aerial application to field grown tomato only at the rate of 1 - 2 pints per acre in a minimum of 5 gallons of water per acre. Increasing the amount of water applied per acre may improve

product performance. Follow all instructions to reduce aerial drift.

**AERIAL DRIFT REDUCTION ADVISORY INFORMATION - GENERAL:** 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 should 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 3-10 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.

**APPLICATION HEIGHT:** 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: Apply 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.

#### Limitations, Restrictions, and Exceptions

##### Pre-Harvest Interval(PHI)

AgriPhage may be applied up to and including the day of harvest.

##### APPLICATION

Apply to foliage by spraying or fogging. Begin applications to seedlings (at the 4 leaf stage) immediately after planting, as a preventive to protect the growing leaf tissue, or as a curative when the first disease symptoms are visible.

##### NOTES

Apply treatments daily. Use sufficient spray solution to ensure complete coverage

Avoid excessive amounts of spray solution that results in the runoff of spray material.

Method

[Foliar spray](#)

[Fogging](#)

Rates

[field rates 0](#)

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Restricted Entry Interval

4 hours

Timings

[To seedlings \(at the 4 leaf stage\) immediately after planting, as a preventive to protect the growing leaf tissue, or as a curative when the first disease symptoms are visible.](#)