LifeGard™ WG contains a biological disease control agent (protease). Prepare only the amount of spray mix that is required for the immediate operation. Do not allow the mixture to stand overnight in the spray tank. LifeGard™ WG acts on the plant's natural defense mechanisms against pathogens. LifeGard™ WG itself has no direct effect on plant pathogens, but preventative applications (before infection) can reduce the occurrence and severity of disease. LifeGard™ WG can be applied to the crop canopy through overhead sprinkler systems by injecting the specified rate (see below) at the very end of the irrigation cycle or program with fungicides labeled for this use.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard (40 CFR Part 190). 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, rectification, and emergency response. It also contains specific restrictions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. 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.

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):
- Covers all
- Waterproof gloves
- Shoelaces plus socks
- Protective eyewear

**Biological Activity**

LifeGard™ WG contains a biological disease control agent (Bacillus mycoides isolate J, or Sm5) that reduces the occurrence and severity of plant disease by triggering the plant's natural defense mechanisms against pathogens. LifeGard™ WG itself has no direct effect on plant pathogens, but preventative applications (before infection) can reduce the occurrence and severity of disease. LifeGard™ WG can be applied to the crop canopy through overhead sprinkler systems by injecting the specified rate (see below) at the very end of the irrigation cycle or program with fungicides labeled for this use.

**Mixing**

LifeGard™ WG is a water-soluble granular (WG) formulation that must be mixed with water and applied as a foliar spray. Mix the specified amount of LifeGard™ WG in clean water with sufficient agitation to maintain a suspension in the spray or mixed tank. Prepare only the amount of spray mix that is required for the immediate operation or is needed to achieve the desired treatment. Do not follow the mixture into the storm drain or irrigation system.

**Application Timing**

LifeGard™ WG should be applied preventatively, before disease is observed in the field. Initial triggering of plant defense responses occurs within minutes of application, but 3 – 5 days are required to attain maximum level of protection, which lasts up to 18 days after application.

Apply to actively growing plants. Do not apply to plants that are stressed due to drought, excessive moisture, excessively hot or cold temperatures, herbicide injury, or other environmental stress.

LifeGard™ WG can be exempt from the requirement for residue tolerance and can be applied up to the day of harvest. Preharvest Interval (PHI) = 8 days.

**Application Method**

**Ground Applications**: LifeGard™ WG can be applied in most commonly-used ground application equipment, such as tractor-mounted boom, airblast, high clearance, backpack, and other pressurized sprayers; hose-end or hand-held sprayers; and foggers or mist blowers. Apply in sufficient volume of water to provide uniform coverage. Airblast applications: LifeGard™ WG can be applied by fixed or rotary winged aircraft in a minimum of 5 gallons of water per acre. Standard precautions should be taken to minimize spray drift.

**Chemigation**: LifeGard™ WG can be applied to the crop canopy through overhead sprinkler systems by injecting the specified rate (see below) at the very end of the irrigation period. Injection should occur only within the minimum time required to ensure complete flushing of the product from the system and onto the crop canopy. Keep supply tank agitated during application. See "Chemigation Instructions" below for additional information about application of LifeGard™ WG through sprinkler irrigation systems. Do not apply LifeGard™ WG through any other type of irrigation system.

**Protection Against Disease Caused by Fungi, Viruses, or Bacteria in Crops Growing Outdoors or in Greenhouses, Shadehouses, or Other Covered Environments**

**Application Rates**: Apply LifeGard™ WG at a concentration of 4.5 ounces (128 grams) per 100 gallons of water. If using dry mixture rather than water, the volume of 4.5 ounces of LifeGard™ WG is approximately 1 cup.

The amount of LifeGard™ WG applied will depend on the finished spray volume (gallons per acre or GPA) required to adequately cover the crop. Lower volume (≤ 20 GPA) may be sufficient for uniform coverage of newly emerged or transplanted annual crops, or smaller crops such as lettuce and spinach. Mature annual crops and those with large canopies (such as tomatoes) may require higher volumes (≥ 50 GPA) if using ground spray equipment.

Do not apply less than 1 ounce or more than 4.5 ounces of LifeGard™ WG per acre.

**Rate Table**: This table can be used to determine the amount of LifeGard™ WG required for different spray volumes to achieve the same concentration of 4.5 to 100 gallons.

<table>
<thead>
<tr>
<th>Volume of water (gallons)</th>
<th>GPA</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of LifeGard™ WG</td>
<td></td>
<td>1 oz</td>
<td>½ cup</td>
<td>2 tbsp</td>
<td>3 tsp</td>
<td>3 tsp</td>
<td>3½ oz</td>
<td>2¼ oz</td>
<td>2 oz</td>
<td>1½ oz</td>
<td>1¾ oz</td>
<td>1¼ oz</td>
<td>1 oz</td>
<td>9 tbsp</td>
</tr>
</tbody>
</table>

**Table**: Use this table to determine the amount of LifeGard™ WG required for different spray volumes to achieve the same concentration of 4.5 to 100 gallons.

- **Applicator**: Use the appropriate rate of LifeGard™ WG to achieve a final spray volume (gallons per acre or GPA) required to adequately cover the crop. Lower volume (≤ 20 GPA) may be sufficient for uniform coverage of newly emerged or transplanted annual crops, or smaller crops such as lettuce and spinach. Mature annual crops and those with large canopies (such as tomatoes) may require higher volumes (≥ 50 GPA) if using ground spray equipment.

- **Do not apply less than 1 ounce or more than 4.5 ounces of LifeGard™ WG per acre.**

- **Rate Table**: This table can be used to determine the amount of LifeGard™ WG required for different spray volumes to achieve the same concentration of 4.5 to 100 gallons.
**Leafy Vegetables (excluding Brassica):**

Dill, Cilantro, Lovage, Celery, Carrot, Turnip, Celery, Scallion, Shallots, Cabbage, Cauliflower, Brussel Sprouts, Chard, Collard, Rutabaga, Broccoli, Broccoli Rabe, Spinach, Endive, Frisee, Endive (escarole), Endive (roman), Fennel (Petroselinum hortense), Romaine (lettuce), Baby lettuce (including baby leaf and spring mix), Grana, Paradiso, Winter Purslane, Good King (Netherlands), Watercress (red chervil), Radishes, Sprouts (including New Zealand and vine), Swiss chard

**Legume Vegetables:**

Succulent or Dried Beans: Pea, Lentil, Chickpea, Soybean

**Pecan:**

Pecan nuts (in shell, sweet variety)

**Potatoes:**

For consumption or processing

See separate section below for seed potatoes.

**Sugar beet and similar beet:**

Carrot leaf spot (Cladosporium helianthi)

**Tobacco:**

Blue mold (Penicillium italicum)

**WHEN TO APPLY**

Begin applications at first true leaf or after thinning. Make preventative applications every 7-14 days as needed to maintain control.

**ADDITIONAL INFORMATION**

Mix LifeGard™ WG at a rate of 1 oz (30 grams) of LifeGard™ WG in 5 gallons of water per acre. For direct seeded tomatoes:

Begin applications immediately before or after transplanting. Transplants may be treated in the greenhouse or nursery prior to transplanting in the field.

**GROUND APPLICATION RATE**

4.5 ounces (128 grams) per 100 gallons of water

For transplants:

Begin applications at first true leaf or after thinning. Make preventative applications every 7-14 days as needed to maintain control.

**LEAFY VEGETABLES**

Apply 1 oz (30 grams) of LifeGard™ WG in 5 gallons of water per acre.

For transplants:

Begin applications immediately before or after transplanting. Transplants may be treated in the greenhouse or nursery prior to transplanting in the field.

**Make the first application within 60-65 days after planting.** Repeat application at 14-day intervals as long as aphid vectors are present and conditions are favorable for disease development.

**PUBLIC WATER SYSTEM CHEMICATION**

Apply this product only through overhead sprinkler irrigation systems (including impact or micro-spray, oscillating, round, solid, oscillating mist-type systems or with or without calibrated irrigation equipment such as a hand-held wand with injector. 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-compliance with labeled use.

If you have questions about calibration, contact State Extension Services, equipment manufacturers or other experts.

**CHEMIGATION INSTRUCTIONS**

Precautions:

Apply this product only through overhead sprinkler irrigation systems (including impact or micro-spray, oscillating, round, solid, oscillating mist-type systems or with or without calibrated irrigation equipment such as a hand-held wand with injector. Do not apply this product through any other type of irrigation system.

**Do not apply when wind speed favors drift beyond the area intended for treatment.**

**To Reduce Occurrence and Severity of Plant Disease on Listed Crops Grown Outdoors or in Greenhouses, Stakehouses, or Other Cover**

*Equivalent to a minimum of 30 billion (3×10^10) viable spores/g of product.

**MATERIALS INCLUDED**

Each bottle contains:

60.0% Bacillus mycoides isolate J*

**FOR Pesticide Injection System:**

Pesticide injection systems for the application of pesticides or other substances into the irrigation water system. Pesticide injection systems shall be designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

**CHEMIGATION SYSTEMS**

Chemigation systems connected to public water systems must contain a function:

- 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.

**STORAGE AND DISPOSAL**

Do not store containers, waste, or feed by or for use, performance, or disposal of empty bags in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.