

BOSCALID	GROUP	7	FUNGICIDE
PYRACLOSTROBIN	GROUP	11	FUNGICIDE

# Empire

For Use in Disease Control in the Following Crops: Alfalfa, Artichoke (Globe), Belgium Endive, Berries (Bushberry, Caneberry, Low Growing Berry (Except Cranberry), *Brassica* (Head and Stem), *Brassica* (Leafy Greens Except Watercress), Bulb Vegetables, Carrot, Celery, Celuice, Citrus Fruit, Cotton, Cucurbit Vegetables, Fennel (Florence), Fruiting Vegetables, Grape, Hops, Kohlrabi, Leaf Petiole Vegetables, Leafy Greens, Peanut, Pome Fruit, Root Vegetables (Except Sugar Beet), Soybean, Spinach, Stone Fruit, Strawberry and Tree Nut.

**ACTIVE INGREDIENTS\*:**

Boscalid: 3-pyridinecarboxamide,2-chloro-N-(4'-chloro(1,1'-biphenyl)-2-yl)-	WT. BY %
Pyraclostrobin: (carbamic acid, [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy]methyl]phenyl]methoxy-, methyl ester)	25.2%
<b>OTHER INGREDIENTS:</b>	12.8%
<b>TOTAL:</b>	<b>62.0%</b>
	<b>100.0%</b>

\*Empire contains 0.252 oz. (0.0158 lb.) of boscalid in 1 oz. and 0.128 oz. (0.008 lb.) of pyraclostrobin in 1 oz.

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

See label booklet for complete First Aid, Precautionary Statements,  
Directions For Use, and Storage and Disposal.

EPA Reg. No. 83529-178

EPA Est. No. **AF** 86555-MO-001; **CS** 70815-GA-001;  
**HP** 44616-MO-002; **MA** 83411-MN-001; **SC** 39578-TX-001

The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

Manufactured For:

Sharda USA LLC 

7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

**Net Contents: 7.5 lbs. (3.4 kg)**

<b>FIRST AID</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	

## **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. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. 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:**

- Protective eyewear (goggles, face shield or safety glasses)
- Long-sleeved shirt and long pants
- Waterproof gloves made of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride ≥ 14 mils, or Viton ≥ 14 mils
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing/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

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high-water mark. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate.

### Groundwater Advisory

Boscalid and pyraclostrobin are known to leach through soil into groundwater under certain conditions as a result of label use. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### Surface Water Advisory

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several months or more after application.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of boscalid and pyraclostrobin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## 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 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 this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. 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 12 hours for all crop uses except when performing cane tying, cane turning or cane girdling on grapes. The REI is 5 days for treated grapes when conducting cane tying, cane turning or cane girdling.

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, including plants, soil, or water, is:

- Protective eyewear (goggles, face shield or safety glasses)
- Coveralls
- Waterproof gloves made of: barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride  $\geq$  14 mils, or Viton  $\geq$  14 mils
- Shoes plus socks

### PRODUCT INFORMATION

This product is **Empire**, a water dispersible granule (WG). The active ingredients in this product, boscalid and pyraclostrobin, belong to two classes of fungicides, the strobilurins and anilides. Preventive applications optimize control of diseases.

**Empire** is effective against pathogens resistant to other fungicides. **Empire** has a protective effect because it inhibits spore germination. It also has a curative effect because it inhibits mycelial growth and sporulation of the fungus on the leaf surface. Optimum disease control is achieved with **Empire** when it is applied in a regularly scheduled protective spray program

and is used in a rotation program with other fungicides. Because of its high specific activity and rainfastness, **Empire** has good residual activity against target fungi.

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

**Empire** is not for use in greenhouse or transplant production.

### Sensitive Crop Precaution

**Grapes** - **DO NOT** use on Concord or Noiret (NY73.0136.17) due to foliar injury. Possible foliar injury could occur to Worden, Fredonia, Niagara, Steuben, Rougeon or related grape varieties. Use special care when making applications of **Empire** to prevent contact with these sensitive varieties. Not all varieties have been thoroughly tested. Consult a Sharda USA LLC representative for more information concerning these sensitive grape varieties. Thoroughly rinse spray equipment, including the inside of the tank, hoses, and nozzles after and before using the same equipment on grape varieties sensitive to **Empire**.

**Blueberry (Highbush and Lowbush)** - **DO NOT** apply **Empire** to blueberries as a tank mix with other pesticide products except fungicide products that contain captan (N-Trichloromethylthio-4-cyclohexene-1,2-dicarboxamide) as the ONLY active ingredient. **DO NOT** make applications of **Empire** as a tank mix with adjuvants, liquid fertilizers, nutrients, or other additives. Only use water as the spray carrier.

### Modes of Action

Pyraclostrobin and boscalid, the active ingredients of **Empire**, belong to the groups of respiration inhibitors classified by the U.S. EPA and Canada PMRA as target site of action Group 11 and Group 7 fungicides, respectively.

### RESISTANCE MANAGEMENT

**Empire** contains both a Group 7 (boscalid) and Group 11 (pyraclostrobin) fungicide. Any fungal population may contain individuals naturally resistant to **Empire** and other Group 7 or Group 11 fungicides. A gradual or total loss of pest control may occur over time if fungicides from these groups are used repeatedly in the same fields. Appropriate resistance-management strategies must be followed.

**Empire** provides effective resistance management of most of its target pathogens because it is a premix of two fungicides with different modes of action. **Empire** is effective against pathogens resistant to fungicides with modes of action different from those of target site Group 7 and Group 11, including dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. **Empire** is also effective against certain pathogens with resistance to Group 11 fungicides, including pyraclostrobin, azoxystrobin, trifloxystrobin, or kresoxim-methyl. However, fungal isolates resistant to Group 7 or Group 11 fungicides may eventually dominate the fungal population if Group 7 or Group 11 fungicides are used predominantly and repeatedly in the same field in successive years as the primary method of control for the targeted pathogen species, especially if resistance to either Group 7 or Group 11 fungicides is already present in the pathogen population. This may result in reduction of disease control by **Empire** or other Group 7 or Group 11 fungicides. To maintain the performance of **Empire** in the field, **DO NOT** exceed the specified number of applications of **Empire** and the total number of applications of **Empire** per year stated in **Restrictions and Limitations** and crop-specific use requirements. Adhere to the label instructions regarding the sequential use of **Empire** or other target site of action Group 7 and Group 11 fungicides that have a similar site of action on the same pathogens.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of **Empire** or other Group 7 and Group 11 fungicides within a growing season sequence with different modes of action groups that control the same pathogens.
- Use tank mixtures with fungicides from a different mode of action group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use and crop rotation, and which considers host plant resistance, the impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological, and other chemical control practices. **Empire** may be used in Agricultural Extension advisory (disease forecasting) programs which base application timing on environmental factors favorable for disease development. Consult your local extension specialist, certified crop advisor and/or Sharda USA LLC representative for additional IPM strategies established for your area.

- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development. Note efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance, contact a Sharda USA LLC representative. You can also contact your pesticide distributor, university, or local extension specialist to report resistance.

### Cleaning Spray Equipment

Clean spray equipment thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used prior to **Empire**.

#### MANDATORY SPRAY DRIFT MANAGEMENT

##### Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft. above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use nozzles and pressure that deliver a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11 - 15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply during temperature inversions.

##### Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use nozzles and pressure that deliver a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

#### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size - Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **Boomless Ground Applications:**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **Handheld Technology Applications:**

- Take precautions to minimize spray drift.

### **Controlling Droplet Size - Aircraft**

- **Adjust Nozzles** - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

### **BOOM HEIGHT - Ground Boom**

For ground equipment, the boom must remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **APPLICATION INSTRUCTIONS**

Make applications of directed rates of **Empire** as instructed within the tables under the **CROP-SPECIFIC REQUIREMENTS** section. Use minimum application rates when disease pressure is low. Use maximum application rates and the shorter application interval for high disease pressure or threatening disease conditions. Ground application is advised for thorough coverage. Aerial application can be made with this product, including conditions where applications are not possible using ground equipment (see **Aerial Application** section below for restricted crops). **Empire** can be applied through sprinkler irrigation equipment (see **Directions for Use Through Sprinkler Systems** below for restricted crops). It is important to regularly check equipment for calibration.

### **Ground Application**

Apply **Empire** in sufficient water to ensure thorough coverage of foliage, bloom, and fruit. Thorough coverage is required for optimum disease control.

### **Directed or Banded Sprays**

The application rates on the **Empire** label reflect the amount of product uniformly applied over an acre of ground on a broadcast basis. In some crops, apply **Empire** as a directed or banded spray over the rows or plant beds with the alleys or row middles left unsprayed. For such uses, reduce the labeled **Empire** rates in proportion to the area actually sprayed. This adjustment is necessary to avoid applying the product at use rates higher than permitted according to label directions.

Use the following formula to determine the broadcast equivalent rate for doing directed or banded sprays:

$$\begin{array}{rclcl} \text{Sprayed bed width} & + & \text{Unsprayed row} & = & \text{Total row} \\ & & \text{middles width} & & \text{width} \\ \hline \frac{\text{Sprayed bed width in inches}}{\text{Total row width in inches}} & \times & \frac{\text{Broadcast rate}}{\text{Treated acre}} & = & \frac{\text{Band rate}}{\text{Field acre}} \end{array}$$

**Example:** A directed spray application will be made to 45-inch plant beds that are separated by 15-inch unsprayed row middles.

$$45 \text{ inches sprayed bed width} + 15 \text{ inches unsprayed row middles} = 60 \text{ inches total row width}$$

The calculation to determine the appropriate equivalent rate of product to use for this situation based on a label broadcast rate of 12 oz./acre follows:

$$\frac{45 \text{ inches sprayed bed width}}{60 \text{ inches total row width}} \times \frac{12 \text{ oz. Empire}}{\text{Treated acre}} = \frac{9 \text{ oz. Empire}}{\text{Field acre}}$$

### Aerial Application

**For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).**

#### Use Restrictions - Aerial Applications

**DO NOT** apply by air to peanut. For all other crops listed on this label, aerial application can be made and thorough coverage is required to obtain optimum disease control. Avoid applications under conditions when uniform coverage cannot be obtained or when spray drift may occur. Use no less than 5 gallons of spray solution per acre. For aerial application to citrus fruit, grape, hops, pome fruit, stone fruit, and tree nut, use no less than 10 gallons of spray solution per acre. Thorough coverage is required for optimum disease control.

### Directions for Use Through Sprinkler Irrigation Systems

#### Sprayer Preparation

Clean chemical tank and injector system thoroughly. Flush system with clean water.

#### Application Instructions

Apply **Empire** at rates and timings as described in this label.

#### Use Restrictions - Sprinkler Irrigation Applications

- This product can be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system.
- Add this product to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product-water mixture continuously, applying the labeled rate per acre for that crop. **DO NOT** exceed 0.5 inch (13,577 gals.) per acre. In stationary or non-continuous moving systems, inject the product-water mixture in the last 15 - 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Thorough coverage of foliage is required for good control. Maintain good agitation during the entire application period.
- **DO NOT** connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

### Use Precautions for Sprinkler Irrigation Applications

- If you have questions about calibration, contact a State Extension Service specialist, equipment manufacturers or other experts.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- 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.
- Systems must use a metering pump, including 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.
- Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. 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 when appropriate.

### Specific Instructions for Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ) backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, including 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.

### ADDITIVES AND TANK MIXING INFORMATION

Under some conditions, the use of additives or adjuvants may improve the performance of **Empire**. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop response and may not match those under which Sharda USA LLC has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Empire** with other products. Therefore, before using any tank mix (fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives), test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application. Consult a Sharda USA LLC representative or local agricultural authorities for more information concerning additives.



If tank mixtures are used, it is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Empire** can be tank mixed with most fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives. See the specific crop tables within the **CROP-SPECIFIC REQUIREMENTS** section for exceptions.

### Compatibility Test for Tank Mix Components

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre:

1. **Water** - For 100 gals. per acre spray volume, use 16 cups (1 gal.) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
2. **Water-Dispersible Products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) - Cap the jar and invert 10 cycles.
3. **Water-Soluble Products** - Cap the jar and invert 10 cycles.
4. **Emulsifiable Concentrates** (oil concentrate or methylated seed oil when applicable) - Cap the jar and invert 10 cycles.
5. **Water-Soluble Additives** - Cap the jar and invert 10 cycles.
6. Let the solution stand for 15 minutes.
7. **Evaluate** the solution for uniformity and stability. The spray solution must not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. **DO NOT** use any spray solution that could clog spray nozzles.

### Mixing Order

1. **Water** - Begin by filling a thoroughly clean sprayer tank 3/4 full of clean water.
2. **Agitation** - Maintain constant agitation throughout mixing and application.
3. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA Bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-Dispersible Products** (including **Empire**, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
6. **Water-Soluble Products**
7. **Emulsifiable Concentrates** (including oil concentrates when applicable)
8. **Water-Soluble Additives** (including ammonium sulfate [AMS] or urea ammonium nitrate [UAN] when applicable)
9. **Remaining Quantity of Water**

Make sure that each component is thoroughly mixed and suspended before adding tank mix partners. Maintain constant agitation during application. See the specific crop tables within the **CROP-SPECIFIC REQUIREMENTS** section for more details.

### RESTRICTIONS AND LIMITATIONS

- **DO NOT** exceed the maximum product rate (oz./A) per year, the maximum product rate per application, or the total number of applications of **Empire** per year as stated in **Table 1** and within the specific crop tables under the **CROP-SPECIFIC REQUIREMENTS** section. Pre-harvest interval (PHI) restrictions are also included in these tables.
- **DO NOT** apply more than the maximum annual use rate of a.i./acre or oz. of product/acre for each specific crop from any combination of products containing pyraclostrobin or boscalid. To determine pounds of pyraclostrobin per acre, multiply oz. of product/acre by 0.008. To determine lbs. of boscalid per acre, multiply oz. of product/acre by 0.0158. See **Table 2** for corresponding pounds of active ingredient per acre.
- **Empire** is not for use in greenhouse or transplant production.
- **Blueberry (Highbush and Lowbush)** - **DO NOT** apply **Empire** to blueberries as a tank mix with other pesticide products except fungicide products that contain captan (N-Trichloromethylthio-4-cyclohexene-1,2-dicarboxamide) as the ONLY active ingredient. **DO NOT** apply **Empire** as a tank mix with adjuvants, liquid fertilizers, nutrients, or other additives. Only use water as the spray carrier.
- **Grape** - **DO NOT** use on Concord or Noiret (NY73.0136.17) due to foliar injury. Possible foliar injury could occur to Worden, Fredonia, Niagara, Steuben, Rougeon, or related grape varieties. Not all varieties have been thoroughly tested.

- **Aerial Application in Hops - DO NOT** make more than 1 aerial application of **Empire** per year and include a myclobutanil product as a tank mix.
- **DO NOT** apply by air to peanut.
- **For Aerial Application in New York State, DO NOT** apply within 100 feet of aquatic habitats (including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).
- **DO NOT** use on sugar beet.

### Crop Rotation Restriction

Crops listed on the **Empire** label may be planted immediately following the last application. For all other crops, **DO NOT** plant sooner than 14 days after the last application.

**Table 1. Empire Restrictions and Limitations Overview\***

Crop/Crop Group**	Minimum Time from Application to Harvest (PHI) (Days)	Maximum Rate per Application (Oz. Product/A)	Maximum Number of Applications per Year <sup>1</sup>	Maximum Rate per Year (Oz. Product/A)
Alfalfa (Including Alfalfa Grown for Seed)	14	18	3	54
Artichoke (Globe)	0	23	3	69
Belgium Endive	19	1.6 (cold storage)	1	3.4
Berry Subgroups				
Bushberry [Subgroup 13-07B]	0	23	4	92
Caneberry [Subgroup 13-07A]	0	23	4	92
Low Growing Berry (Except Cranberry) [Subgroup 13-07G]	0	23	5	115
Brassica, Head and Stem [Crop Group 5-16]	0	25	2	50
Brassica, Leafy Greens (Except Watercress) [Subgroup 4-16B]	14	25	2	50
Bulb Vegetables [Crop Group 3-07]	7	18.5	6	111
Carrot	0	10.5	6	63
Celery	0	25	2	50
Celtuce	0	25	2	50
Citrus Fruit [Crop Group 10-10]	0	18.5	4	74
Cotton	30	25	2	50
Cucurbit Vegetables [Crop Group 9]	0	18.5	4	74
Fennel (Florence)	0	25	2	50
Fruiting Vegetables [Crop Group 8-10]	0	9.7	6	58.2
Grape <sup>1</sup>	14	23	3	69
Hops <sup>2</sup>	14	28	3	84
Kohlrabi	0	25	2	50

(continued)

**Table 1. Empire Restrictions and Limitations Overview\* (continued)**

Crop/Crop Group**	Minimum Time from Application to Harvest (PHI) (Days)	Maximum Rate per Application (Oz. Product/A)	Maximum Number of Applications per Year <sup>1</sup>	Maximum Rate per Year (Oz. Product/A)
Leaf Petiole Vegetables [Subgroup 22B]	0	25	2	50
Leafy Greens [Subgroup 4-16A]	14	25	2	50
Peanut	14	28	3	84
Pome Fruit [Crop Group 11-10]	0	18.5	4	74
Root Vegetables (Except Sugar Beet) [Subgroup 1B]	0	10.5	6	63
Soybean	21	16	2	32
Spinach	14	25	2	50
Stone Fruit [Crop Group 12-12]	0	14.5	5	72.5
Strawberry	0	23	5	115
Tree Nut [Crop Group 14-12]	14 (for almond - 25 days)	14.5	4	58

\*See the specific crop tables within the **CROP-SPECIFIC REQUIREMENTS** section for complete directions and exceptions, including restrictions and information regarding crop sensitivity and tank mixtures.

\*\*For a complete list of crops labeled within a group, see the specific crop tables within the **CROP-SPECIFIC REQUIREMENTS** section.

<sup>1</sup>At maximum use rate, except for grape, see the specific crop tables within the **CROP-SPECIFIC REQUIREMENTS** section.

<sup>2</sup>For additional ground, aerial, and sprinkler irrigation (chemigation) application restrictions and limitations, see the specific crop tables within the **CROP-SPECIFIC REQUIREMENTS** section.

**Table 2. Empire Rate Conversions\***

<b>Product Use Rate (Oz./Acre)</b>	<b>Lb. A.i. Boscalid</b>	<b>Lb. A.i. Pyraclostrobin</b>
0.8	0.013	0.006
0.9	0.014	0.007
1.6	0.025	0.013
1.8	0.028	0.014
3.4	0.054	0.027
8	0.126	0.064
9.7	0.153	0.078
10	0.158	0.080
10.5	0.166	0.084
12	0.190	0.096
12.5	0.198	0.100
14	0.221	0.112
14.5	0.229	0.116
15	0.237	0.120
16	0.253	0.128
16.7	0.264	0.134
18	0.284	0.144
18.5	0.292	0.148
23	0.363	0.184
24.5	0.387	0.196
25	0.395	0.200
28	0.442	0.224

\*Corresponding pounds active ingredient per acre for the **Product Use Rates per Application (Oz./A)** column listed in the specific crop tables under the **CROP-SPECIFIC REQUIREMENTS** section. Also refer to these specific crop tables for the maximum product use rate per year in oz./A and lb. a.i.

**CROP-SPECIFIC REQUIREMENTS**

**Alfalfa**  
**(including Alfalfa Grown for Seed)**

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Anthracnose ( <i>Colletotrichum trifolii</i> ) Common Leaf Spot ( <i>Pseudopeziza medicaginis</i> ) Downy Mildew ( <i>Peronospora trifoliorum</i> ) Leaf Spot ( <i>Leptosphaerulina briosiani</i> ) Powdery Mildew ( <i>Erysiphe pisi</i> ) Rhizoctonia Blight/Black Patch ( <i>Rhizoctonia</i> spp.) Rust ( <i>Uromyces</i> spp.) Spring Black Stem and Leaf Spot ( <i>Phoma medicaginis</i> ) Stagonospora Leaf Spot ( <i>Stagonospora melloti</i> ) Stemphylium Leaf Spot ( <i>Stemphylium</i> spp.) Summer Black Stem and Leaf Spot ( <i>Cercospora medicaginis</i> ) Yellow Leaf Blotch ( <i>Leptotrochila medicaginis</i> )	12 - 18
White Mold/Sclerotinia Crown and Stem Rot ( <i>Sclerotinia sclerotiorum</i> , <i>S. trifoliorum</i> ) <b>Suppression Only:</b> Southern Blight ( <i>Sclerotium rolfsii</i> )	14 - 18

**Application Directions:**

Begin **Empire** applications when conditions favorable for disease are expected, but prior to onset of disease development. For stand establishment of fall-seeded alfalfa, begin applications in fall through early winter prior to first snowfall or extended cool, wet conditions. For seed pod protection, begin applications at 10% - 30% bloom. Use the higher rate and shorter interval when disease pressure is high.

Using higher rates may improve disease control performance as the crop canopy volume and density increases. Disease control can also be improved when application equipment and spray volume is adjusted to achieve thorough canopy penetration and coverage.

Repeat application on a 14- to 21-day interval if conditions are favorable for disease development. **DO NOT** make more than 2 **Empire** applications per cutting or more than 3 **Empire** applications per year at the high application rate.

Under some conditions, additives or adjuvants may improve the performance of **Empire**. No livestock feeding restrictions.

**Restrictions:**

- **DO NOT** apply more than 54 oz. (0.853 lb. boscalid, 0.432 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 2 applications per cutting or 3 total applications of **Empire** per year. **DO NOT** make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.
- Minimum Retreatment Interval: 14 days
- Pre-Harvest Interval: 14 days
- **Resistance Management:** To limit development of resistance, **DO NOT** make more than 2 sequential **Empire** applications per cutting or 3 **Empire** applications per year. Alternate to a labeled non-Group 7 or non-Group 11 fungicide with different mode of action following 2 sequential **Empire** applications.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

**Artichoke (Globe)**

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Bud Rot ( <i>Botrytis cinerea</i> )	18.5 - 23
<p><b>Application Directions:</b> Dosage and frequency/timing of applications. Begin applications of <b>Empire</b> prior to onset of disease development and continue on a 7- to 14-day interval. For artichoke bud rot, begin applications at the initiation of the bud protection phase when approximately 25% of the plants have bolted. Use the shorter interval and/or the higher rate when disease pressure is high.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 69 oz. (1.09 lbs. boscalid, 0.552 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 3 applications of <b>Empire</b> per year.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> exceed the specified number of applications of <b>Empire</b> or other Group 7 or Group 11 fungicides per year. Adhere to the label instructions regarding the consecutive use of <b>Empire</b> or other target site of action Group 7 and Group 11 fungicides that have a similar site of action on the same pathogens.</li> <li>• <b>DO NOT</b> apply <b>Empire</b> to artichokes as a tank mix with any other pesticide products (including fungicides, insecticides, herbicides), adjuvants, liquid fertilizers, nutrients, any other additives, or anything other than water. Mix <b>Empire</b> with water only for applications to artichokes.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.</p>	

**Belgium Endive  
(For Use in California Only.)**

Target Disease	Empire Rate per Application
Root and Crown Rot ( <i>Sclerotinia sclerotiorum</i> )	<b>Prior to Cold Storage:</b> 0.8 - 1.6 oz. per 1,000 lbs. roots
<p><b>Application Directions:</b> Make 1 application to the roots when brought into cold storage prior to forcing.</p> <p><b>Prior to Cold Storage:</b> Make 1 application as a spray to the roots as they move along a conveyor belt used to bring roots from field transportation into cold storage bins. Apply 0.8 - 1.6 oz. <b>Empire</b> in 3 - 3.5 gals of water per 1,000 lbs. roots.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 3.4 oz. (0.054 lb. boscalid, 0.027 lb. pyraclostrobin) of <b>Empire</b> per 1,000 lbs. roots per crop per year.</li> <li>• <b>DO NOT</b> make more than 1 application of <b>Empire</b> per year.</li> <li>• Pre-Harvest Interval: 19 days</li> <li>• <b>DO NOT</b> apply after the beginning of forcing.</li> </ul>	

## Berry Subgroups

**Bushberry [Subgroup 13-07B]\*:** Aronia Berry, Black Currant, Blueberry\*\* (Highbush and Lowbush), Buffalo Currant, Chilean Guava, Currant, Elderberry, European Barberry, Gooseberry, Highbush Cranberry, Honeysuckle (Edible) Huckleberry, Jostaberry, Juneberry, Lingonberry, Native Currant, Red Currant, Salal, and Sea Buckthorn.

**Caneberry [Subgroup 13-07A]\*:** Blackberry (All Varieties), Loganberry, Raspberry, (Black and Red), and Wild Raspberry.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot and Fruit Rot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp., <i>Elsinoe</i> spp.) Botrytis Gray Mold ( <i>Botrytis cinerea</i> ) Leaf Spot and Blotch ( <i>Mycosphaerella</i> spp., <i>Septoria</i> spp.) Monilinia Blight and Mummy Berry ( <i>Monilinia</i> spp.) Phomopsis Leaf Spot, Twig Blight, and Fruit Rot ( <i>Phomopsis</i> spp.) Powdery Mildew ( <i>Microsphaera</i> spp., <i>Oidium</i> spp., <i>Sphaerotheca</i> spp.) Spur Blight ( <i>Didymella</i> spp., <i>Phoma</i> spp.)	18.5 - 23
<b>Suppression Only:</b> Rust ( <i>Arthuriomyces</i> spp., <i>Kuehneola</i> spp., <i>Phragmidium</i> spp., <i>Pucciniastrum</i> spp.)	

### Application Directions:

Begin applications of **Empire** prior to onset of disease development and continue on a 7- to 14-day interval. Use the shorter interval and/or the higher rate when disease pressure is high.

### Restrictions:

- **DO NOT** apply more than 92 oz. (1.45 lbs. boscalid, 0.736 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 4 applications of **Empire** per year.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 0 days
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 2 sequential applications of **Empire** or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with a different mode of action.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*For the berries listed in this table (except blueberry), it is impossible for Sharda USA LLC to test all bushberry and caneberry crops for sensitivity to **Empire** under all environments and all potential product mixture combinations. Local conditions can also influence crop response and may not match those under which Sharda USA LLC has conducted testing. Proceed with caution with regard to **Empire** use, particularly in tank mixes and/or adjuvant combinations on bushberry and caneberry crops. To reduce the risk of berry crop injury, Sharda USA LLC advises testing **Empire** or **Empire** tank mixtures on a small portion of the crop before broad scale use. To the extent consistent with applicable law, the user assumes all risks associated with adding products to the **Empire** spray solution. Refer also to the **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY** section of this label.

\*\***Blueberry (highbush and lowbush)** is not registered for use in California. For all other states, **DO NOT** apply **Empire** to blueberries as a tank mix with other pesticide products except fungicide products that contain captan (N-Trichloromethylthio-4-cyclohexene-1,2-dicarboxamide) as the **ONLY** active ingredient. **DO NOT** apply **Empire** as a tank mix with adjuvants, liquid fertilizers, nutrients, or other additives. Only use water as the spray carrier.

**Berry Subgroups****Low Growing Berry (Except Cranberry) [Subgroup 13-07G]\*:** Bearberry, Bilberry, Cloudberry, Muntries, and Partridgeberry.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Anthracnose ( <i>Colletotrichum</i> spp.) Botrytis Gray Mold ( <i>Botrytis cinerea</i> ) Leaf Spot ( <i>Mycosphaerella fragariae</i> ) Powdery Mildew ( <i>Sphaerotheca macularis</i> )	18.5 - 23

**Application Directions:**

Begin applications of **Empire** no later than 10% bloom, or prior to disease development, and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high.

For the low growing berries listed in this table, it is impossible for Sharda USA LLC to test all low growing berry crops for sensitivity to **Empire** under all environments and all potential product mixture combinations. Local conditions can also influence crop response and may not match those under which Sharda USA LLC has conducted testing. Proceed with caution with regard to **Empire** use, particularly in tank mixes and/or adjuvant combinations on low growing berry crops. To reduce the risk of berry crop injury, Sharda USA LLC advises testing **Empire** or **Empire** tank mixtures on a small portion of the crop before broad scale use. To the extent consistent with applicable law, the user assumes all risks associated with adding products to the **Empire** spray solution. Refer also to the **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY** section of this label.

**Restrictions:**

- **DO NOT** apply more than 115 oz. (1.82 lbs. boscalid, 0.920 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 5 applications of **Empire** per year. **DO NOT** make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 0 days
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 2 sequential applications of **Empire** or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with a different mode of action.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*See separate crop table for strawberry use rates and application directions.



**Brassica, Head and Stem [Crop Group 5-16]\***

Broccoli, Brussels Sprouts, Cabbage, Chinese Cabbage (Napa), Cauliflower, and Cultivars, Varieties and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Black Leg ( <i>Phoma lingam</i> ) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) Ring Spot ( <i>Mycosphaerella</i> spp.) White Leaf Spot ( <i>Pseudocercospora</i> spp.)	10 - 15
Anthracnose ( <i>Colletotrichum</i> spp.) White Rust ( <i>Albugo</i> spp.)	15 - 20
Downy Mildew ( <i>Peronospora</i> spp.) Gray Mold ( <i>Botrytis</i> spp.) Sclerotinia Stem Rot ( <i>Sclerotinia</i> spp.) Rhizoctonia Bottom Rot ( <i>Rhizoctonia solani</i> )	15 - 25
<p><b>Application Directions:</b>            Begin applications of <b>Empire</b> prior to disease development and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 2 sequential applications of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.            *Not registered for use in California.</p>	

**Brassica, Leafy Greens (Except Watercress) [Subgroup 4-16B]\***

Arugula, Broccoli (Chinese), Broccoli Raab, Cabbage (Abyssinian), Cabbage (Seakale), Chinese Cabbage (Bok Choy), Colards, Cress (Garden and Upland), Hanover Salad, Kale, Maca (Leaves), Mizuna, Mustard Greens, Radish (Leaves), Rape Greens, Rocket (Wild), Shepherd's Purse, and Cultivars, Varieties and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Ascochyta Leaf Spot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Downy Mildew ( <i>Peronospora</i> spp.) Phoma ( <i>Phoma</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp., <i>Phyllactinia</i> spp., <i>Sphaerotheca</i> spp.) Rust ( <i>Puccinia</i> spp.) Septoria Leaf Spot ( <i>Septoria</i> spp.) White Rust ( <i>Albugo</i> spp.)	10 - 15
Botrytis Rot ( <i>Botrytis</i> spp.) Sclerotinia Rot and Blight ( <i>Sclerotinia</i> spp.)	15 - 25
<b>Application Directions:</b>	
Begin applications of <b>Empire</b> prior to the onset of disease development and continue on a 7-day interval. Use the higher rate when disease pressure is high.	
<b>Restrictions:</b>	
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 14 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul>	
<sup>1</sup> Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.	
*Not registered for use in California.	

**Bulb Vegetables [Crop Group 3-07]**

Chive (Fresh Leaves), Chive (Chinese, Fresh Leaves), Daylily (Bulb), Elegans Hosta, Fritillaria (Bulb), Fritillaria (Leaves), Garlic, (Bulb), Garlic (Great-Headed, Bulb), Garlic (Serpent, Bulb), Kurrat, Lady's Leek, Leek, Leek (Wild), Lily (Bulb), Onion (Beltsville Bunching), Onion (Bulb), Onion (Chinese, Bulb), Onion (Fresh), Onion (Green), Onion (Macrostem), Onion (Pearl), Onion (Potato, Bulb), Onion (Tree, Tops), Onion (Welsh, Tops), Shallot (Bulb), Shallot (Fresh Leaves), and Cultivars, Varieties and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Botrytis Leaf Blight ( <i>Botrytis</i> spp.) Botrytis Neck Rot* ( <i>Botrytis</i> spp.)	14.5 - 18.5
Purple Blotch and Leaf Blight ( <i>Alternaria porri</i> ) Stemphylium Leaf Blight and Stalk Rot ( <i>Stemphylium vesicarium</i> )	10.5 - 18.5
<b>Suppression Only:</b> Downy Mildew ( <i>Peronospora destructor</i> )	18.5

**Application Directions:**

For control of neck rot, purple blotch, and leaf blight, begin applications of **Empire** prior to onset of disease development and continue on a 14-day interval. If application intervals shorter than 14 days are needed, rotate to another fungicide with a different mode of action. Use the higher rate when disease pressure is high.

Applications made to control purple blotch, leaf blight and stalk rot will also suppress downy mildew. If downy mildew occurs during a **Empire** application for these diseases, immediately follow the **Empire** application with a downy mildew fungicide with a different mode of action.

**For Downy Mildew:** Rotate each application of **Empire** with an application of a labeled fungicide with a different mode of action.

No restriction on livestock grazing or feeding.

**Restrictions:**

- **DO NOT** apply more than 111 oz. (1.75 lbs. boscalid, 0.888 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 6 applications of **Empire** per year. **DO NOT** make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.
- Minimum Retreatment Interval: 14 days
- Pre-Harvest Interval: 7 days
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 2 sequential applications of **Empire** or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with a different mode of action.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*Not registered for use in California.

## Carrot

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) <b>Suppression Only:</b> Southern Root Rot ( <i>Sclerotium rolfsii</i> )	8 - 10.5
<b>Application Directions:</b> Begin applications of <b>Empire</b> prior to onset of disease development and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high. No restriction on livestock grazing or feeding for carrot culls.	
<b>Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> apply more than 63 oz. (0.995 lb. boscalid, 0.504 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li><li>• <b>DO NOT</b> make more than 6 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li><li>• Minimum Retreatment Interval: 7 days</li><li>• Pre-Harvest Interval: 0 days</li><li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 2 sequential applications of <b>Empire</b> or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with a different mode of action.</li></ul>	
<sup>1</sup> Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.	

**Celery\* and Celery (Chinese)\***

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Ascochyta Leaf Spot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Downy Mildew ( <i>Bremia</i> spp., <i>Peronospora</i> spp.) Phoma ( <i>Phoma</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) Rust ( <i>Puccinia</i> spp.) Septoria Leaf Spot ( <i>Septoria</i> spp.) White Rust ( <i>Albugo</i> spp.)	10 - 15
Botrytis Rot ( <i>Botrytis</i> spp.) Sclerotinia Rot and Blight ( <i>Sclerotinia</i> spp.)	25
<p><b>Application Directions:</b>                      Begin applications of <b>Empire</b> prior to the onset of disease development and continue on a 7-day interval. Use the higher rate when disease pressure is high.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.                      *Not registered for use in California.</p>	

**Celtuce\***

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Ascochyta Leaf Spot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Downy Mildew ( <i>Bremia</i> spp., <i>Peronospora</i> spp.) Phoma ( <i>Phoma</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) Rust ( <i>Puccinia</i> spp.) Septoria Leaf Spot ( <i>Septoria</i> spp.) White Rust ( <i>Albugo</i> spp.)	10 - 15
Botrytis Rot ( <i>Botrytis</i> spp.) Sclerotinia Rot and Blight ( <i>Sclerotinia</i> spp.)	15 - 25
<p><b>Application Directions:</b>                      Begin applications of <b>Empire</b> prior to the onset of disease development and continue on a 7-day interval. Use the higher rate when disease pressure is high.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.                      *Not registered for use in California.</p>	

**Citrus Fruit [Crop Group 10-10]**

Australian Desert Lime, Australian Finger Lime, Australian Round Lime, Brown River Finger Lime, Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Japanese Summer Grapefruit, Kumquat, Lemon, Lime, Mediterranean Mandarin, Mount White Lime, New Guinea Wild Lime, Orange (Sour), Orange (Sweet), Pummelo, Russell River Lime, Satsuma Mandarin, Sweet Lime, Tachibana Orange, Tahiti Lime, Tangelo, Tangerine (Mandarin), Tangor, Trifoliolate Orange, Uniq Fruit, and Cultivars, Varieties and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Brown Spot ( <i>Alternaria alternata</i> , <i>Alternaria</i> spp.) Citrus Black Spot* ( <i>Guignardia citricarpa</i> ) Greasy Spot ( <i>Mycosphaerella citri</i> ) Melanose ( <i>Diaporthe citri</i> ) Scab ( <i>Elsinoe fawcettii</i> )	16 - 18.5

**Application Directions:**

Apply **Empire** in a regularly scheduled protective fungicide program. Begin **Empire** applications prior to infection and continue on a 10- to 21-day interval. Use the higher rate and shorter interval when disease pressure is high.

Disease control from **Empire** depends on disease pressure and various cultural practices that influence rind maturation and disease susceptibility. Improved disease performance may result when **Empire** is used in a crop management program that minimizes rind over maturity and rind damage.

For aerial application to citrus fruit trees, use no less than 10 gals. of spray solution per acre.

No livestock feeding restrictions.

**Restrictions:**

- **DO NOT** apply more than 74 oz. (1.17 lbs. boscalid, 0.592 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 4 applications of **Empire** per year.
- Minimum Retreatment Interval: 10 days
- Pre-Harvest Interval: 0 days
- **Resistance Management:** To limit development of resistance, **DO NOT** make more than 2 sequential applications of **Empire** or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with different modes of action.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*Not registered for use in California.

**Cotton\***

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose, Boll Rot ( <i>Glomerella</i> spp.) Ascochyta Blight, Boll Rot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Diplodia Boll Rot ( <i>Diplodia</i> spp.) Hard Lock, Boll Rot ( <i>Fusarium</i> spp.)	12.5 - 25
<p><b>Application Directions:</b>                      Begin applications of <b>Empire</b> prior to the onset of disease development and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high.</p> <p>Feed containing commodities from cotton production and processing can be fed to livestock.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 30 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.                      *Not registered for use in California.</p>	



**Cucurbit Vegetables [Crop Group 9]**

Chayote, Chinese Waxgourd, Citron Melon, Cucurbit, Cucumber, Gherkin, Pumpkin, and Watermelon.

**Edible Gourd:** Chinese Okra, Cucuzza, Hechima, and Hyotan.

**Momordica spp.:** Balsam Apple, Balsam Pear, Bitter Melon, and Chinese Cucumber.

**Muskmelon:** Cantaloupe, Casaba, Crenshaw Melon, Golden Pershaw Melon, Honey Balls, Honeydew Melon, Mango Melon, Persian Melon, Pineapple Melon, Santa Claus Melon, and Snake Melon.

**Summer Squash:** Crookneck Squash, Scallop Squash, Straightneck Squash, Vegetable Marrow, and Zucchini.

**Winter Squash:** Acorn Squash, Butternut Squash, Calabaza, Hubbard Squash, and Spaghetti Squash.

Cultivars, Varieties and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Blight ( <i>Alternaria cucumerina</i> ) Cercospora Leaf Spot ( <i>Cercospora citrulina</i> ) Downy Mildew ( <i>Pseudoperonospora cubensis</i> ) Gummy Stem Blight ( <i>Didymella bryoniae</i> ) Powdery Mildew ( <i>Erysiphe cichoracearum</i> , <i>Sphaerotheca fuliginea</i> )	12.5 - 18.5
Anthracnose ( <i>Colletotrichum orbiculare</i> )	18.5

**Application Directions:**

Begin applications of **Empire** prior to onset of disease development and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high.

Use the highest labeled rate for anthracnose.

**Tank Mixes with Adjuvants and Other Products:**

Sharda USA LLC evaluations indicate that tank mixes of additives, adjuvants, and/or other products with **Empire** may result in injury. This is particularly true for muskmelon crops including cantaloupe and honeydew. Users need to be aware of this, proceed with caution, and test for crop safety when tank mixing, as stated below.

Applications of additives, adjuvants, and/or other products that increase penetration may cause injury when mixed with **Empire**. Injury potential from these kinds of tank mixes may decrease with lower rates of the tank mix partner. Users are advised to test for crop safety, as stated below.

Sharda USA LLC has not tested all varieties and cultivars with all possible tank mix combinations and rates of additives, adjuvants, and/or other products. Local environmental conditions also influence crop response and may not match those under which Sharda USA LLC has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Empire** with other products.

To minimize the likelihood of crop injury, Sharda USA LLC advises testing **Empire** in combination with additives, adjuvants, and/or other products for crop safety on a small portion of the crop. However, environmental variability precludes direct and consistent projection of small area test results to future use.

Consult a Sharda USA LLC representative for more information concerning additives or adjuvants.

**Restrictions:**

- **DO NOT** apply more than 74 oz. (1.17 lbs. boscalid, 0.592 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 4 applications of **Empire** per year.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 0 days
- **DO NOT** tank mix **Empire** with chlorpyrifos, dicofol, endosulfan, malathion, methomyl, potassium salts of fatty acids, or dicloran as crop injury may result.
- **Resistance Management:** To limit the potential of development of resistance, **DO NOT** make more than 1 application of **Empire** before alternating to a labeled fungicide with a different mode of action for at least 1 application.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

**Fennel (Florence)\***

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Ascochyta Leaf Spot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Downy Mildew ( <i>Bremia</i> spp., <i>Peronospora</i> spp.) Phoma ( <i>Phoma</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) Rust ( <i>Puccinia</i> spp.) Septoria Leaf Spot ( <i>Septoria</i> spp.) White Rust ( <i>Albugo</i> spp.)	10 - 15
Botrytis Rot ( <i>Botrytis</i> spp.) Sclerotinia Rot and Blight ( <i>Sclerotinia</i> spp.)	15 - 25
<p><b>Application Directions:</b>                      Begin applications of <b>Empire</b> prior to the onset of disease development and continue on a 7-day interval. Use the higher rate when disease pressure is high.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.                      *Not registered for use in California.</p>	

### Fruiting Vegetables [Crop Group 8-10]

African Eggplant, Bell Pepper, Bush Tomato, Cocona, Currant Tomato, Eggplant, Garden Huckleberry, Goji Berry, Ground-cherry, Martynia, Naranjilla, Okra, Pea Eggplant, Pepino, Pepper (All Varieties), Non-Bell Pepper, Roselle, Scarlet Eggplant, Sunberry, Tomatillo, Tree Tomato, and Cultivars, Varieties and/or Hybrids of These.

See separate crop table for **Tomato** use rates and application directions.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Black Mold ( <i>Alternaria alternata</i> ) Early Blight ( <i>Alternaria solani</i> )	9.7 or 9.7 oz. per 100 gals. of spray volume (dilute)*

#### Application Directions:

Begin **Empire** applications prior to disease development and continue on a 7- to 14-day interval for black mold and early blight. Use the higher rate and shorter interval when disease pressure is high.

#### Use of Adjuvants:

Additive or adjuvant use may improve the performance of **Empire** on fruiting vegetables. However, Sharda USA LLC evaluations also indicate that under some conditions (particularly high temperatures and/or high additive rates), **Empire** application in combination with certain rates of silicone based or oil-containing (petroleum or crop) additives or adjuvants can cause injury.

Sharda USA LLC has not tested all varieties and cultivars with all possible tank mix combinations and rates of additives or adjuvants. Local environmental conditions also influence crop response and may not match those under which Sharda USA LLC has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Empire** with other products.

To the extent consistent with applicable law, the user assumes all risks associated with adding products to the **Empire** spray solution. Sharda USA LLC cannot be held responsible for crop injury, reduced disease control or incompatibility because of additives, adjuvants or other products used in combination with **Empire** (see **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**).

To minimize the likelihood of crop injury, test **Empire** in combination with other products for crop safety on a small portion of the crop. However, environmental variability precludes direct and consistent projection of small area test results to future use.

Consult a Sharda USA LLC representative for more information concerning additives or adjuvants.

#### Restrictions:

- **DO NOT** apply more than 58.2 oz. (0.920 lb. boscalid, 0.466 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 6 applications of **Empire** per year.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 0 days
- **Resistance Management:** To limit development of resistance, **DO NOT** make more than 2 sequential **Empire** applications before alternating to a labeled non-Group 7 or non-Group 11 fungicide with a different mode of action.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*For applications based on dilute volume, spray plants to runoff. Apply a minimum of 20 gals. of spray volume per acre, and increase the spray volume as the plants grow. Spray proportional volume to the amount of plant tissue to be covered such that 100 gals. of spray per acre is used on mature plants.

## Grape

(except Concord or Noiret (NY73.0136.17), due to foliar injury. It is possible that foliar injury could occur on related grape varieties. See comments in the below **Application Directions** for more information.)

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>	Maximum Number of Applications per Year
Angular Leaf Spot ( <i>Mycosphaerella angulata</i> ) Anthraxnose ( <i>Elsinoe ampelina</i> ) Black Rot ( <i>Guignardia bidwellii</i> ) Downy Mildew ( <i>Plasmopara viticola</i> ) Leaf Blight ( <i>Pseudocercospora vitis</i> ) Phomopsis Cane and Leaf Spot ( <i>Phomopsis viticola</i> ) Powdery Mildew ( <i>Uncinula necator</i> ) Ripe Rot ( <i>Colletotrichum gloeosporioides</i> ) <b>Aids in Control Only:</b> Summer Bunch Rot (Sour Rot) ( <i>Aspergillus</i> spp. and <i>Cladosporium</i> spp.) <b>Suppression Only:</b> Botrytis Gray Mold ( <i>Botrytis cinerea</i> )	8 - 12.5	5
Botrytis Gray Mold ( <i>Botrytis cinerea</i> )	18.5 - 23	3

### Application Directions:

For powdery mildew control, begin applications of **Empire** as of bud break prior to onset of disease, using 8 oz. per acre on a 10- to 14-day interval. Use 10 to 12.5 oz. per acre on a 14- to 21-day interval.

**For Black Rot and Downy Mildew Control:** Begin applications of **Empire** as of pre-bloom prior to onset of disease and continue applications on a 10- to 14-day interval.

**For All Other Diseases Listed Except for Botrytis Gray Mold:** Begin applications of **Empire** prior to onset of disease and continue applications on a 10- to 14-day interval. **Empire** applied at rates of 8 - 12.5 oz. per acre for control of the listed diseases will also suppress *Botrytis* gray mold.

**For Control of Botrytis Gray Mold:** Apply 18.5 - 23 oz. per acre of **Empire** prior to onset of disease development when conditions favor disease development during early bloom, bunch pre-closure and veraison up to 14 days before harvest.

Use the higher rate and the shorter interval when disease pressure is high.

For aerial application to grape, use no less than 10 gals. of spray solution per acre.

### Restrictions:

- **DO NOT** apply more than 69 oz. (1.09 lbs. boscalid, 0.552 lb. pyraclostrobin) of **Empire** per acre per year.
- Minimum Retreatment Interval: 10 days
- Pre-Harvest Interval: 14 days
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 5 applications of **Empire** or other Group 7 or Group 11 fungicides per year. **DO NOT** make more than 2 sequential applications of **Empire** before alternating to a labeled fungicide with a different mode of action.
- **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours except when performing cane tying, cane turning or cane girdling. The REI is 5 days for treated grapes when conducting cane tying, cane turning or cane girdling.
- **DO NOT** use on Concord or Noiret (NY73.0136.17) due to foliar injury. Possible foliar injury could occur to Worden, Fredonia, Niagara, Steuben, Rougeon, or related grape varieties. Not all varieties have been thoroughly tested. Consult a Sharda USA LLC representative for more information concerning these sensitive grapes.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

**Hops**  
**(Ground Application)**

Target Disease	Empire Rate per Application
Powdery Mildew ( <i>Erysiphe cichoracearum</i> , <i>Sphaerotheca</i> spp.) Downy Mildew ( <i>Pseudoperonospora humuli</i> )	14 oz. per 100 gals. of dilute spray <b>DO NOT</b> use more than 28 oz. per acre.
<p><b>Application Directions:</b>            Begin applications of <b>Empire</b> prior to disease development and continue on a 10- to 21-day interval. Use the shorter interval when disease pressure is high.            Application rates are based on 100 gals. of dilute spray applied to runoff. Adjust water volume to maintain thorough coverage. Use 25 - 50 gals. of dilute spray per acre prior to trellising and 100 - 200 gals. of dilute spray per acre thereafter.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 84 oz. (1.33 lbs. boscalid, 0.672 lb. pyraclostrobin) of <b>Empire</b> per acre per year. If 1 aerial application is made, <b>DO NOT</b> apply more than 70 oz. (1.11 lbs. boscalid, 0.560 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 3 applications of <b>Empire</b> per year (counting both ground and aerial applications).</li> <li>• Minimum Retreatment Interval: 10 days</li> <li>• Pre-Harvest Interval: 14 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 2 sequential applications of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action.</li> <li>• <b>DO NOT</b> use more than 200 gals. per acre of this mixture. If additional spray volume is needed for thorough coverage, use 28 oz. (0.442 lb. boscalid, 0.224 lb. pyraclostrobin) of <b>Empire</b> per acre in the required spray volume.</li> </ul>	

**Hops**  
**(Aerial Application)**

<b>Target Disease</b>	<b>Empire Rate per Application</b>
Powdery Mildew ( <i>Erysiphe cichoracearum</i> , <i>Sphaerotheca humuli</i> , <i>Sphaerotheca macularis</i> , <i>Sphaerotheca</i> spp.)	14 oz. per acre as a tank mix with a myclobutanil fungicide product (see myclobutanil rate following)
<p><b>Application Directions:</b> Aerial application may result in reduced control due to lack of canopy penetration and coverage. Use aerial application only when ground application is not possible.</p> <p>Apply a preventive spray of <b>Empire</b> at 14 oz. (0.221 lb. boscalid, 0.112 lb. pyraclostrobin) as a tank mix with a myclobutanil fungicide product at rates equivalent to 0.15 lb. per acre of active ingredient (including but not limited to: Rally® 40W fungicide or Sonoma® 40WSP fungicide) for resistance management.</p> <p>Avoid applications under conditions when uniform coverage cannot be obtained or when spray drift may occur. Use a minimum of 10 gals. of water per acre when applying by air. Thorough coverage is essential.</p> <p>Because complete coverage is important for effective disease control, aerial application at low volumes may result in reduced control due to lack of canopy penetration and coverage.</p> <p>Mixing <b>Empire</b> with surfactants or foliar fertilizers is not advised when applying by air. Similarly, adjuvants that enhance pesticide penetration may cause phytotoxicity when used with <b>Empire</b> applied by air.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"><li>• <b>DO NOT</b> make more than 1 application of <b>Empire</b> per year.</li><li>• Aerial Application Timing Growth Stage: Wire to 14 days pre-harvest</li><li>• Pre-Harvest Interval: 14 days</li><li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 aerial application of <b>Empire</b> per year and include a myclobutanil product as a tank mix as described.</li></ul>	

**Kohlrabi\***

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Black Leg ( <i>Phoma lingam</i> ) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) Ring Spot ( <i>Mycosphaerella</i> spp.) White Leaf Spot ( <i>Pseudocercospora</i> spp.)	10 - 15
Anthracnose ( <i>Colletotrichum</i> spp.) White Rust ( <i>Albugo</i> spp.)	15 - 20
Downy Mildew ( <i>Peronospora</i> spp.) Gray Mold ( <i>Botrytis</i> spp.) Sclerotinia Stem Rot ( <i>Sclerotinia</i> spp.) Rhizoctonia Bottom Rot ( <i>Rhizoctonia solani</i> )	15 - 25

**Application Directions:**

Begin applications of **Empire** prior to disease development and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high.

**Restrictions:**

- **DO NOT** apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 2 applications of **Empire** per year. **DO NOT** make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 0 days
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 2 sequential applications of **Empire** before alternating to a labeled fungicide with a different mode of action.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*Not registered for use in California.

**Leaf Petiole Vegetables [Subgroup 22B]\*\***

Cardoon, Fuki, Rhubarb, Udo, Zuiki, and Cultivars, Varieties and/or Hybrids of These.

See separate crop table for **Celery** and **Chinese Celery** use rates and application directions.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Ascochyta Leaf Spot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Downy Mildew ( <i>Bremia</i> spp., <i>Peronospora</i> spp.) Phoma ( <i>Phoma</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) Rust ( <i>Puccinia</i> spp.) Septoria Leaf Spot ( <i>Septoria</i> spp.) White Rust ( <i>Albugo</i> spp.)	10 - 15
Botrytis Rot ( <i>Botrytis</i> spp.) Sclerotinia Rot and Blight ( <i>Sclerotinia</i> spp.)	15 - 25

**Application Directions:**

Begin applications of **Empire** prior to the onset of disease development and continue on a 7-day interval. Use the higher rate when disease pressure is high.

**Restrictions:**

- **DO NOT** apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 2 applications of **Empire** per year. **DO NOT** make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 0 days
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 1 application of **Empire** before alternating to a labeled fungicide with a different mode of action for at least 1 application.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*\*Not registered for use in California.



**Leafy Greens [Subgroup 4-16A]\***

Amaranth (Chinese), Amaranth (Leafy), Aster (Indian), Blackjack, Cat's Whiskers, Cham-Chwi, Cham-Na-Mul, Chervil (Fresh Leaves), Chipilin, Chrysanthemum (Garland), Cilantro (Fresh Leaves), Corn Salad, Cosmos, Dandelion (Leaves), Dang-Gwi (Leaves), Dillweed, Dock, Dol-Nam-Mul, Ebolo, Endive, Escarole, Faneflower, Feather Cockscomb, Good King Henry, Huauzontle, Jute (Leaves), Lettuce (Bitter), Lettuce (Head), Lettuce (Leaf), Orach, Parsley (Fresh Leaves), Plantain (Buckhorn), Primrose (English), Purslane (Garden), Purslane (Winter), Radicchio, Swiss Chard, Violet (Chinese, Leaves), and Cultivars, Varieties, and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Ascochyta Leaf Spot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Downy Mildew ( <i>Peronospora</i> spp.) Phoma ( <i>Phoma</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp., <i>Phyllactinia</i> spp., <i>Sphaerotheca</i> spp.) Rust ( <i>Puccinia</i> spp.) Septoria Leaf Spot ( <i>Septoria</i> spp.) White Rust ( <i>Albugo</i> spp.)	10 - 15
Botrytis Rot ( <i>Botrytis</i> spp.) Sclerotinia Rot and Blight ( <i>Sclerotinia</i> spp.)	15 - 25
<p><b>Application Directions:</b>            Begin applications of <b>Empire</b> prior to the onset of disease development and continue on a 7-day interval. Use the higher rate when disease pressure is high.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 14 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.  <sup>*</sup>Not registered for use in California, except on radicchio for control of Sclerotinia rot and blight when applied at a rate of 25 oz. per acre.</p>	

**Peanut\***

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Early Leaf Spot ( <i>Cercospora arachidicola</i> ) Late Leaf Spot ( <i>Cercosporidium personatum</i> ) Pepperspot ( <i>Leptosphaerulina crassiasca</i> ) Rust ( <i>Puccinia arachidis</i> ) Web Blotch ( <i>Phoma arachidicola</i> )	12.5 - 18.5
Rhizoctonia Limb Rot, Peg Rot, and Pod Rot ( <i>Rhizoctonia solani</i> ) Sclerotinia Blight ( <i>Sclerotinia minor</i> ) Sclerotium Rot, Southern Blight, Southern Stem Rot, and White Mold ( <i>Sclerotium rolfsii</i> )	18.5 - 28
<p><b>Application Directions:</b></p> <p><b>For Control of Pepperspot, Rust, Web Blotch, Early, and Late Leaf Spot:</b> Begin applications of <b>Empire</b> prior to onset of disease development and continue on a 14-day interval.</p> <p><b>For Control of Rhizoctonia and Sclerotium Rot:</b> Begin applications of <b>Empire</b> prior to onset of disease development and continue on a 14-day interval.</p> <p><b>For Control of Sclerotinia Blight:</b> Begin applications of <b>Empire</b> prior to onset of disease development or 45 - 60 days after planting. Make a second application 14 - 21 days later.</p> <p>Use the higher rate and/or shorter spray interval when disease pressure is high or in fields with a history of disease.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 84 oz. (1.33 lbs. boscalid, 0.672 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 3 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 14 days</li> <li>• Pre-Harvest Interval: 14 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 2 sequential applications of <b>Empire</b> or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with a different mode of action.</li> <li>• Use of <b>Empire</b> with silicone-based adjuvants may cause crop injury.</li> <li>• <b>DO NOT</b> apply by air.</li> <li>• <b>DO NOT</b> feed treated peanut hay to livestock.</li> <li>• <b>DO NOT</b> graze livestock or harvest for forage use.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.                      *Not registered for use in California.</p>	

**Pome Fruit [Crop Group 11-10]**

Apple, Azarole, Crabapple, Loquat, Mayhaw, Medlar, Pear, Pear (Asian), Pear (Oriental), Quince, Quince (Chinese), Quince (Japanese), Tejocote, and Cultivars, Varieties and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Blotch ( <i>Alternaria mali</i> ) Apple Scab ( <i>Venturia inaequalis</i> ) Bitter Rot ( <i>Colletotrichum</i> spp.) Black Rot/Frogeye Leaf Spot ( <i>Botryosphaeria obtusa</i> ) Blue Mold* ( <i>Penicillium</i> spp.) Brooks Spot ( <i>Mycosphaerella pomii</i> ) Flyspeck ( <i>Zygophiala jamaicensis</i> ) Gray Mold* ( <i>Botrytis</i> spp.) Pear Scab ( <i>Venturia pirina</i> ) Powdery Mildew ( <i>Podosphaera leucotricha</i> ) Sooty Blotch (Disease Complex) White Rot ( <i>Botryosphaeria dothidea</i> ) <b>Suppression Only:</b> Cedar Apple Rust ( <i>Gymnosporangium juniperi-virginianae</i> ) Quince Rust ( <i>Gymnosporangium clavipes</i> )	14.5 - 18.5
<p><b>Application Directions:</b>  <b>For Scab, Powdery Mildew, Frogeye Leaf Spot, and Rust:</b> Begin applications of <b>Empire</b> prior to disease development and continue on a 7- to 10-day interval.  <b>For Blue Mold, Gray Mold, Sooty Blotch, Flyspeck, White Rot, Black Rot, Bitter Rot, and Alternaria Blotch:</b> Begin applications of <b>Empire</b> prior to disease development and continue on a 7- to 14-day interval.            Use the higher rate and shorter interval when disease pressure is high.            No restriction on livestock grazing or feeding for pome fruit feed items.            For aerial application to pome fruit trees, use no less than 10 gals. of spray solution per acre.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 74 oz. (1.17 lbs. boscalid, 0.592 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 4 applications of <b>Empire</b> per year.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 4 applications of <b>Empire</b> or other Group 7 or Group 11 fungicides per year. <b>DO NOT</b> make more than 2 sequential applications of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action.</li> <li>• For pears, <b>DO NOT</b> use <b>Empire</b> with a horticultural mineral oil as crop response to foliage and/or fruit can occur under certain conditions.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.            *Not registered for use in California.</p>	

**Root Vegetables (Except Sugar Beet) [Subgroup 1B]\***

Beet (Garden), Burdock (Edible), Celeriac, Chervil (Turnip-Rooted), Chicory, Ginseng, Horseradish, Parsley (Turnip-Rooted), Parsnip, Radish, Radish (Oriental), Rutabaga, Salsify, Salsify (Black), Salsify (Spanish), Skirret, and Turnip.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp.) <b>Suppression Only:</b> Southern Root Rot ( <i>Sclerotium rolfsii</i> )	8 - 10.5
<b>Application Directions:</b> Begin applications of <b>Empire</b> prior to onset of disease development and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high. <b>Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 62 oz. (0.995 lb. boscalid, 0.504 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 6 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul> <sup>1</sup> Refer to <b>Table 2</b> for corresponding lb. a.i. conversions. *Not registered for use in California.	

**Soybean\***

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum truncatum</i> ) Brown Spot ( <i>Septoria glycines</i> ) Cercospora Blight ( <i>Cercospora kikuchii</i> ) Frogeye Leaf Spot ( <i>Cercospora soja</i> ) Pod and Stem Blight ( <i>Diaporthe phaseolorum</i> ) Rhizoctonia Aerial Blight ( <i>Rhizoctonia solani</i> )	8 - 16
Asian Soybean Rust ( <i>Phakopsora pachyrhizi</i> )	12.5 - 16
Southern Blight ( <i>Sclerotium rolfsii</i> ) White Mold ( <i>Sclerotinia sclerotiorum</i> )	16

**Application Directions:**

For optimal disease control, apply **Empire** at early flowering (R1 to R3 growth stage) or prior to disease development, whichever is earlier. Make a second application 7 to 21 days later if monitoring shows disease development or if conditions are conducive for disease infection. Use the higher labeled rate and shorter interval when disease pressure is high.

**Empire** may be applied with adjuvants.

Soybean forage may be fed no sooner than 14 days after last application. Soybean hay may be fed no sooner than 21 days after last application.

**Restrictions:**

- **DO NOT** apply more than 32 oz. (0.506 lb. boscalid, 0.256 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 2 applications of **Empire** per year. **DO NOT** make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 21 days
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 1 application of **Empire** before alternating to a labeled fungicide with a different mode of action for at least 1 application.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

\*Not registered for use in California.

### Spinach and Spinach (Malabar, New Zealand, and Tanier)

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Ascochyta Leaf Spot ( <i>Ascochyta</i> spp.) Cercospora Leaf Spot ( <i>Cercospora</i> spp.) Downy Mildew ( <i>Peronospora</i> spp.) Phoma ( <i>Phoma</i> spp.) Powdery Mildew ( <i>Erysiphe</i> spp., <i>Phyllactinia</i> spp., <i>Sphaerotheca</i> spp.) Rust ( <i>Puccinia</i> spp.) Septoria Leaf Spot ( <i>Septoria</i> spp.) White Rust ( <i>Albugo</i> spp.)	10 - 15
Botrytis Rot ( <i>Botrytis</i> spp.) Sclerotinia Rot and Blight ( <i>Sclerotinia</i> spp.)	25
<p><b>Application Directions:</b>                      Begin applications of <b>Empire</b> prior to the onset of disease development and continue on a 7-day interval. Use the higher rate when disease pressure is high.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 50 oz. (0.790 lb. boscalid, 0.400 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 2 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 14 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 1 application of <b>Empire</b> before alternating to a labeled fungicide with a different mode of action for at least 1 application.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.</p>	

**Stone Fruit [Crop Group 12-12]**

Apricot, Apricot (Japanese), Capulin, Cherry (Black), Cherry (Nanking), Cherry (Sweet), Cherry (Tart), Jujube (Chinese), Nectarine, Peach, Plum, Plum (American), Plum (Beach), Plum (Canada), Plum (Cherry), Plum (Chickasaw), Plum (Damson), Plum (Japanese), Plum (Klamath), Plum (Prune), Plumcot, Sloe, and Cultivars, Varieties, and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Blossom Blight ( <i>Monilinia</i> spp.) Brown Rot ( <i>Monilinia</i> spp.) Leaf Spot ( <i>Blumeriella jaapii</i> ) Powdery Mildew ( <i>Podosphaera</i> spp., <i>Sphaerotheca</i> spp.) Ripe Fruit Rot ( <i>Botrytis cinerea</i> , <i>Monilinia fructicola</i> , <i>Monilinia laxa</i> , <i>Rhizopus</i> spp.) Rust ( <i>Tranzschelia discolor</i> ) Scab ( <i>Cladosporium carpophilum</i> ) Shothole ( <i>Wilsonomyces carpophilus</i> )	10.5 - 14.5
<b>Nectarine and Peach Suppression Only:</b> Leaf Curl* ( <i>Taphrina deformans</i> )	
<p><b>Application Directions:</b>            Begin application of <b>Empire</b> at pink bud or prior to onset of disease development and continue on a 7- to 14-day interval. Use the shorter interval and/or the higher rate when disease pressure is high.            For aerial application to stone fruit trees, use no less than 10 gals. of spray solution per acre.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 72.5 oz. (1.15 lbs. boscalid, 0.580 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 5 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 2 sequential applications of <b>Empire</b> or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with a different mode of action.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.            *Not registered for use in California.</p>	

## Strawberry

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Anthracnose ( <i>Colletotrichum</i> spp.) Botrytis Gray Mold ( <i>Botrytis cinerea</i> ) Leaf Spot ( <i>Mycosphaerella fragariae</i> ) Powdery Mildew ( <i>Sphaerotheca macularis</i> )	18.5 - 23
<p><b>Application Directions:</b>            Begin applications of <b>Empire</b> no later than 10% bloom, or prior to disease development, and continue on a 7- to 14-day interval. Use the higher rate and the shorter interval when disease pressure is high.</p> <p>It is impossible for Sharda USA LLC to test strawberry sensitivity to <b>Empire</b> under all environments and all potential product mixture combinations. Local conditions can also influence crop response and may not match those under which Sharda USA LLC has conducted testing. Proceed with caution with regard to <b>Empire</b> use, particularly in tank mixes and/or adjuvant combinations on strawberry crops. To reduce the risk of strawberry crop injury, Sharda USA LLC advises testing <b>Empire</b> or <b>Empire</b> tank mixtures on a small portion of the crop before broad scale use. To the extent consistent with applicable law, the user assumes all risks associated with adding products to the <b>Empire</b> spray solution. Refer also to the <b>CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY</b> section of this label.</p> <p>The restricted-entry interval (REI) for treated strawberries is <b>12 hours</b>. Refer to the <b>AGRICULTURAL USE REQUIREMENTS</b> box for PPE required for early entry to treated areas as permitted under the Worker Protection Standard.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 115 oz. (1.82 lbs. boscalid, 0.920 lb. pyraclostrobin) of <b>Empire</b> per acre per year.</li> <li>• <b>DO NOT</b> make more than 5 applications of <b>Empire</b> per year. <b>DO NOT</b> make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.</li> <li>• Minimum Retreatment Interval: 7 days</li> <li>• Pre-Harvest Interval: 0 days</li> <li>• <b>Resistance Management:</b> To limit the potential for development of resistance, <b>DO NOT</b> make more than 2 sequential applications of <b>Empire</b> or other Group 7 or Group 11 fungicides before alternating to a labeled fungicide with a different mode of action.</li> </ul> <p><sup>1</sup>Refer to <b>Table 2</b> for corresponding lb. a.i. conversions.</p>	



**Tree Nut [Crop Group 14-12]**

African Nut-Tree, Almond, Beechnut, Brazil Nut, Brazilian Pine, Bunya, Bur Oak, Butternut, Cajou Nut, Candlenut, Cashew, Chestnut, Chinquapin, Coconut, Coquito Nut, Dika Nut, Ginkgo, Guiana Chestnut, Hazelnut (Filbert), Heartnut, Hickory Nut, Japanese Horse-Chestnut, Macadamia Nut, Mongongo Nut, Monkey-Pot, Monkey Puzzle Nut, Okari Nut, Pachira Nut, Peach Palm Nut, Pecan, Pequi, Pili Nut, Pine Nut, Pine Nut, Pistachio, Sapucaia Nut, Tropical Almond, Walnut (Black), Walnut (English), Yellowhorn, and Cultivars, Varieties, and/or Hybrids of These.

Target Disease	Empire Rate per Application (Oz./A) <sup>1</sup>
Alternaria Leaf Spot ( <i>Alternaria</i> spp.) Anthracnose ( <i>Colletotrichum</i> spp.) Blossom Blight ( <i>Monilinia</i> spp.) Botrytis Blossom and Shoot Blight/Green Fruit Rot ( <i>Botrytis cinerea</i> ) Eastern Filbert Blight ( <i>Anisogramma anomala</i> ) Leaf Rust ( <i>Tranzschelia discolor</i> ) Panicle and Shoot Blight ( <i>Botryosphaeria</i> spp.) Scab ( <i>Cladosporium</i> spp.) Shothole ( <i>Wilsonomyces carpophilus</i> )	10.5 - 14.5

**Application Directions:**

**For Almond:** Begin applications of **Empire** at pink bud and continue on a 7- to 14-day interval up to 25 days before harvest.

**For Filbert:** Begin applications at budswell to budbreak, prior to infection and onset of disease development. Continue on a 7- to 14-day interval to cover and protect new growth.

**For Pecan:** Begin applications of **Empire** prior to onset of disease development and continue on a 7- to 21-day interval for the control of scab.

**For Pistachio:** Begin applications prior to the onset of disease development and continue on a 10- to 30-day interval.

**For All Other Crops Listed Above:** Apply **Empire** prior to disease development and continue on a 7- to 28-day interval. In all cases, use the shorter interval when shoot growth is very rapid.

Use the shorter interval and/or the higher rate when disease pressure is high.

No restriction on livestock feeding for almond hulls.

For aerial application to tree nuts, use no less than 10 gals. of spray solution per acre.

**Restrictions:**

- **DO NOT** apply more than 58 oz. (0.916 lb. boscalid, 0.464 lb. pyraclostrobin) of **Empire** per acre per year.
- **DO NOT** make more than 4 applications of **Empire** per year. **DO NOT** make more than the maximum number of applications per year for applications made at the maximum product use rate per application. Additional applications per year are permitted when a lower product use rate per application is used, as long as the maximum product rate per year is not exceeded.
- Minimum Retreatment Interval: 7 days
- Pre-Harvest Interval: 14 days (for almond - 25 days)
- **Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than 2 sequential applications of **Empire** or other **Group 7** or **Group 11** fungicides before alternating to a labeled fungicide with a different mode of action.

<sup>1</sup>Refer to **Table 2** for corresponding lb. a.i. conversions.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

**Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Non-refillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water 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, for plastic containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For metal containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Non-Refillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds):** Non-refillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for plastic containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For metal containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Refillable Fiber Drums with Liners:** Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with this herbicide only. **DO NOT** reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: **DO NOT** reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by State and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities.

**All Other Refillable Containers:** Refillable container. Refilling Container: Refill this container with this pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: **DO NOT** reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for plastic containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For metal containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

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NOTES

BOSCALID	GROUP	7	FUNGICIDE
PYRACLOSTROBIN	GROUP	11	FUNGICIDE

# Empire

**For Use in Disease Control in the Following Crops:** Alfalfa, Artichoke (Globe), Belgium Endive, Berries (Bushberry, Caneberry, Low Growing Berry (Except Cranberry), Brassica (Head and Stem), Brassica (Leafy Greens Except Watercress), Bull Vegetables, Carrot, Celery, Celtuce, Citrus Fruit, Cotton, Cucurbit Vegetables, Fennel (Florence), Fruiting Vegetables, Grape, Hops, Kohlrabi, Leaf Petiole Vegetables, Leafy Greens, Peanut, Pome Fruit, Root Vegetables (Except Sugar Beet), Soybean, Spinach, Stone Fruit, Strawberry and Tree Nut.

<b>ACTIVE INGREDIENTS:</b>	<b>WT. BY %</b>
Boscalid: 3-pyridinecarboxamide, 2-chloro-N-(4'-chloro(1,1'-biphenyl)-2-yl)-.....	25.2%
Pyraclostrobin: (carbamic acid, [2-[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy]methyl]phenyl)methoxy-, methyl ester).....	12.8%
<b>OTHER INGREDIENTS:</b> .....	62.0%
<b>TOTAL:</b> .....	<b>100.0%</b>

\*Empire contains 0.252 oz. (0.0158 lb.) of boscalid in 1 oz. and 0.128 oz. (0.008 lb.) of pyraclostrobin in 1 oz.

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

**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 a 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. **IF INHALED:** • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further 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 emergency information concerning this product, 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. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. 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.

**ENVIRONMENTAL HAZARDS** - This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high-water mark. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate. **Groundwater Advisory:** Boscalid and pyraclostrobin are known to leach through soil into groundwater under certain conditions as a result of label use. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow. **Surface Water Advisory:** This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of boscalid and pyraclostrobin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## STORAGE AND DISPOSAL

**- DO NOT** contaminate water, food, or feed by storage or disposal. **PESTICIDE STORAGE:** Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed. **PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. **CONTAINER HANDLING:** **Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):** Non-refillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water 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, for plastic containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For metal containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. **CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

See label booklet for complete Precautionary Statements and Directions For Use.

### Manufactured For:

Sharda USA LLC, 7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707

EPA Reg. No. 83529-178

EPA Est. No. **AF** 86555-MO-001; **CS** 70815-GA-001;

**HP** 44616-MO-002; **MA** 83411-MN-001; **SC** 39578-TX-001

The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

**Net Contents: 7.5 lbs. (3.4 kg)**

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