



SPECIMEN

# **Pristine**<sup>®</sup> fungicide

For use in berries, bulb vegetables, carrots, cucurbit vegetables, grapes, hops, pistachios, pome fruits, stone fruits, strawberries, and tree nuts.

#### **ACTIVE INGREDIENTS:**

Pyraclostrobin, (carbamic acid, [2-[[[1-(4-chlorophenyl)-
1H-pyrazol-3-yl]oxy]methyl]phenyl]methoxy-, methyl ester)
Boscalid, 3-pyridinecarboxamide,2-chloro-N-(4'-chloro(1,1'-biphenyl)-2-yl)
Inert Ingredients:
<b>Total:</b>
0.128 oz (0.008 lb) of pyraclostrobin in 1 oz of <b>Pristine</b>
0.252 oz (0.0158 lb) of boscalid in 1 oz of <b>Pristine</b>

EPA Reg No. 7969-199

EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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

> See the attached booklet for complete First Aid, Precautionary Statements, Directions For Use, and Conditions of Sale and Warranty

Net Contents: \_\_\_\_\_

BASF Corporation Agricultural Products 26 Davis Drive Research Triangle Park, NC 27709 No aerial application in New York except as permitted under FIFRA Section 24(c), Special Local Needs Registration.

FIRST AID						
If on skin or clothing	<ul> <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>					
If swallowed	<ul> <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>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>					
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>					
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>					
	HOT LINE NUMBER					

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

#### **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.

#### **Personal Protective Equipment (PPE):**

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category A** on an EPA chemical resistance category selection chart.

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

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material (such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate).
- Shoes plus socks.

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, 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:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### Environmental Hazards Surface Water Advisory

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

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.

#### **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, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves, made of any waterproof material (such as nitrile, butyl, neoprene, and/or barrier laminate)
- Shoes plus socks

#### **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. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.

**Pesticide Disposal**: Wastes resulting from using 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 representatives at the nearest EPA Regional Office for guidance.

**Container Disposal**: Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### In Case of Spill

In case of large-scale spillage regarding this product, call: CHEMTREC 1-800-424-9300 BASF Corporation 1-800-832-HELP (4357)

# Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.

Remove contaminated clothing, and wash affected skin areas with soap and water.

Wash clothing before reuse.

Keep the spill out of all sewers and open bodies of water.

#### I. General Information

This package contains **Pristine**<sup>®</sup> **fungicide**, a water dispersible granule (WG). The active ingredients in **Pristine** belong to two classes of fungicides, the strobilurins and anilides. **Pristine** is effective against pathogens resistant to other fungicides. **Pristine** 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. However, optimum disease control is achieved when **Pristine** is applied in a regularly scheduled protective spray program and is used in a rotation program with other fungicides. **Pristine** has good residual activity against target fungi.

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

## **Sensitive Crop Precaution**

**Pristine® fungicide** may cause injury to foliage of Concord or related grape varieties such as Worden, Fredonia and Niagara. **DO NOT** use **Pristine** on these varieties and use special care when applying **Pristine** to prevent contact with these sensitive varieties. Consult a BASF 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 **Pristine**.

#### **Modes of Action**

Pyraclostrobin and boscalid, the active ingredients of **Pristine**, 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**

Pristine contains pyraclostrobin and boscalid, a premix of a Group 11 and a Group 7 fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of target site Groups 7 and 11, such as dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. Pristine is also effective against certain pathogens with resistance to Group 11 fungicides, such as pyraclostrobin, azoxystrobin, trifloxystrobin, or kresoximmethyl. However, fungal isolates resistant to Group 7 or 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 11 fungicides is already present in the pathogen population. This may result in reduction of disease control by **Pristine** or other Group 7 or 11 fungicides. To maintain the performance of Pristine in the field, DO NOT exceed the total number of sequential applications of **Pristine** and the total number of applications of **Pristine** per season stated in Sections V. and VI. Adhere to the label instructions regarding the consecutive use of **Pristine** or other target site of action Group 7 and 11 fungicides that have a similar site of action on the same pathogens.

The following recommendations may be considered to delay the development of fungicide resistance:

- 1. **Tank mixtures: Pristine** provides more effective resistance management of most of its target pathogens, because it is a premix of two fungicides with different modes of action. If **Pristine** is used in tank mixtures with fungicides from different Target Site of Action Groups that are registered/permitted for the same use and that are effective against the pathogens of concern, BASF recommends using at least the minimum labeled rates of each fungicide in the tank mix.
- 2. **IPM: Pristine** should be integrated into an overall disease and pest management program. Cultural practices known to reduce disease development should be followed. Consult your local extension specialist, certified crop advisor and/or BASF representative for

additional IPM strategies established for your area. **Pristine** may be used in Agricultural Extension advisory (disease forecasting) programs, which recommend application timing based on environmental factors favorable for disease development.

- 3. **Monitoring:** Monitor 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.
- 4. **Reporting:** If a **Group 7** or **11** target site fungicide appears to be less or no longer effective against a pathogen that it previously controlled or suppressed, contact a BASF representative, local extension specialist, or certified crop advisor to assist in determining the cause of reduced performance.

# **Cleaning Spray Equipment**

Spraying equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used prior to **Pristine**.

# **II.** Application Instructions

Apply recommended rates of **Pristine** as instructed by **Table 2. Crop-Specific Recommendations**. Ground application is recommended for thorough coverage. Aerial application can be made for those crops or in conditions where applications are not possible using ground equipment. **Pristine** can be applied through sprinkler irrigation equipment. Equipment should be checked frequently for calibration. Under low-level disease conditions, the minimum application rates can be used while maximum application rates and shortened spray schedules are recommended for severe or threatening disease conditions.

#### **Ground Application**

Apply **Pristine** 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 rate recommendations on the **Pristine** label reflect the amount of product that should be applied uniformly over an acre of ground on a broadcast basis.

In some crops, **Pristine** may be used as a directed or banded spray over the rows or plant beds with the alleys or row middles left unsprayed. For such uses, the labeled **Pristine** recommendation should be reduced 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 recommendations.

The following formula may be used to determine the broadcast equivalent rate for doing directed or banded sprays:

sprayed bed width	+	unsprayed row middles width	=	total row width
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**Example:** A directed spray application will be made to 45" plant beds that are separated by 15" of unsprayed row middles.

45" aproved bod width	т	15" unsprayed	_	60" total row
45" sprayed bed width	т	row middles	-	width

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

45" sprayed bed width	v	12 oz Pristine <sup>®</sup> fungicide		9 oz <b>Pristine</b>
60" total row width	λ	Treated Acre	-	Field Acre

# **Aerial Application**

BASF recommends ground applications for thorough coverage. For those crops or in conditions where applications cannot be done by ground equipment, aerial application can be made. 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 applications to tree and vine crops, use no less than 10 gallons of spray solution per acre. For all crops, thorough coverage is required for optimum disease control.

## Directions for Use Through Sprinkler Irrigation Systems

**Sprayer Preparation:** Chemical tank and injector system should be thoroughly cleaned. Flush system with clean water.

**Application Instructions:** Apply **Pristine** at rates and timings as described in this label.

#### **Use Precautions for 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 ½ inch (13,577 gallons) 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. Good agitation should be maintained during the entire application period.

- If you have questions about calibration, you should 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, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 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 should the need arise.
- **DO NOT** connect an irrigation system (including green house systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

#### **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, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ,

the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

## III. Additives and General Tank Mixing Information

**Pristine® fungicide** can be tank mixed with most recommended fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives as specified in **Section VI. Crop-Specific Recommendations.** 

Under some conditions, the use of additives or adjuvants may improve the performance of **Pristine**. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Pristine** 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 BASF representative or local agricultural authorities for more information concerning additives.

# **IV. Compatibility Test and Mixing Order**

If tank mixtures are used, adhere to restrictions due to rates, label recommendations and precautions on all labels.

# **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 recommended label rate per acre:

- 1) **Water:** For 100 gallons per acre spray volume, use 16 cups (1 gallon) 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 should 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 agitating a thoroughly clean sprayer tank three-quarters 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** (such as **Pristine**, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).

#### 6) Water-soluble products.

- 7) **Emulsifiable concentrates** (such as oil concentrates when applicable).
- 8) **Water-soluble additives** (such as AMS or 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 **Table I. Crop-Specific Restrictions and Limitations** for more details.

#### V. Restrictions and Limitations - All Crops

- Maximum seasonal use rate: DO NOT apply more than the maximum rate per acre per season as listed in Table 1. Crop-Specific Restrictions and Limitations and Table 2. Crop-Specific Recommendations.
- Maximum rate per application: DO NOT apply more than the maximum rate per acre per application as listed in Table 1. Crop-Specific Restrictions and Limitations and Table 2. Crop-Specific Recommendations.
- DO NOT make more than the total number of applications of **Pristine® fungicide** per season as listed in **Table 1. Crop-Specific Restrictions and Limitations** and **Table 2. Crop-Specific Recommendations**.
- DO NOT apply more than the maximum season use rate of ai/acre or oz of product/acre for each specific crop from any combination of products (e.g. **Pristine**, **Endura®**, **Cabrio® EG**, **Headline® fungicides**).
- Preharvest Interval (PHI): See Table 1. Crop-Specific Restrictions and Limitations and Table 2. Crop-Specific Recommendations.
- Pristine is not for use in greenhouse or transplant production.

#### **Crop Rotation Restriction**

Crops listed on the **Pristine**, **Cabrio EG**, **Endura** and **Headline** labels may be planted immediately following the last application.

All other crops can be planted 14 days after the last application.

#### DO NOT use on cowpeas, field peas, grain lupin, sugar beets, garden beets, turnip or radishes.

Crop <sup>1</sup>	Minimum Time from Application to Harvest (PHI) (days)	Maximum Rate per Acre per Application (oz product)	Maximum Number of Applications <sup>3</sup> per Season	Maximum Rate per Acre per Season (oz product)
Berries Group <sup>1</sup> : Blueberry, Caneberry, Raspberry	0	23	4	92
Bulb Vegetables Group <sup>1</sup> : Onion, Garlic, Leeks	7	18.5	6	111
Carrots	0	10.5	6	63
Cucurbit Vegetables Group <sup>1</sup> : Cantaloupe, Cucumber, Melon, Squash, Pumpkin, Watermelon	0	18.5	4	74
Grapes <sup>2</sup>	14	23	3	69
Hops	14	28	3	84
Pistachio	14	14.5	4	58
Pome Fruits <sup>1</sup>	0	18.5	4	74

#### **Table 1. Crop-Specific Restrictions and Limitations**

### Table 1. Crop-Specific Restrictions and Limitations (Continued)

Crop <sup>1</sup>	Minimum Time from Application to Harvest (PHI) (days)	Maximum Rate per Acre per Application (oz product)	Maximum Number of Applications <sup>3</sup> per Season	Maximum Rate per Acre per Season (oz product)
Stone Fruits Group <sup>1</sup> : Apricot, Cherry, (sweet and sour) Nectarine, Peach, Plum, Prune	0	14.5	5	72.5
Strawberries	0	23	5	115
Tree Nuts Group <sup>1</sup> except Almond	14	14.5	4	58
Almond	25	14.5	4	58

<sup>1</sup> For a complete list of crops within a crop group, see **Section VI. Crop-Specific Recommendations**.

<sup>2</sup> **DO NOT** use on Concord or NY73.0136.17 due to foliar injury. Possible foliar injury could occur to Worden, Fredonia, Niagara, Steuben, Rougeon or related varieties. Not all varieties have been thoroughly tested.

<sup>3</sup> At maximum use rate per application.

Aerial application is permitted for all labeled crop uses except for hops. No aerial application in New York except as permitted under FIFRA Section 24(c), Special Local Needs Registration.

## Table 2. Crop-Specific Recommendations

Сгор	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Berry Group Blackberry (all varieties) Blueberry Currant Elderberry Gooseberry Huckleberry Loganberry Raspberry (black and red)	<ul> <li>Alternaria leaf spot and fruit rot (<i>Alternaria</i> spp.)</li> <li>Anthracnose (<i>Colletotrichum</i> spp., <i>Elsinoe</i> spp.)</li> <li>Botrytis gray mold (<i>Botrytis cinerea</i>)</li> <li>Leaf spot and blotch (<i>Mycosphaerella</i> spp., <i>Septoria</i> spp.)</li> <li>Monilinia blight and mummy berry (<i>Monilinia</i> spp.)</li> <li>Phomopsis leaf spot, twig blight, and fruit rot (<i>Phomopsis</i> spp.)</li> <li>Powdery mildew (<i>Sphaerotheca</i> spp., <i>Microsphaera</i> spp., <i>Oidium</i> spp.)</li> <li>Spur blight (<i>Didymella</i> spp., <i>Phoma</i> spp.)</li> <li>Suppression Only</li> <li>Rust (<i>Puccianiastrum</i> spp., <i>Arthuriomyces</i> spp., <i>Phragmidium</i> spp.)</li> </ul>	18.5 to 23 oz per acre	4	92 oz per acre	0 days

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

Resistance Management: To limit the potential for development of resistance, DO NOT make more than four (4) applications of **Pristine** or other **Group 7** or **11** fungicides per season.

Сгор	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Bulb Vegetables Group Onions (all varieties) Garlic Leek Shallot	Botrytis leaf blight ( <i>Botrytis</i> spp.) Purple blotch and leaf blight ( <i>Alternaria porri</i> ) Stemphylium leaf blight and stalk rot ( <i>Stemphylium vesicarium</i> )	14.5 to 18.5 oz per acre 10.5 to 18.5 oz per acre	6	111 oz per acre	7 days
	Suppression only Downy mildew (Peronospora destructor)	18.5 oz per acre			

Application Directions: For control of purple blotch and leaf blight, begin applications of **Pristine® fungicide** 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 **Pristine** application for these diseases, immediately follow the **Pristine** application with a downy mildew fungicide with a different mode of action.

For downy mildew, rotate each application of **Pristine** with an application of a labeled fungicide with a different mode of action.

No restriction on livestock grazing or feeding.

Resistance Management: To limit the potential for development of resistance, DO NOT make more than six (6) applications of **Pristine** or other **Group 7** or **11** fungicides per season.

Crop	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Carrots	Alternaria leaf spot ( <i>Alternaria</i> spp.)	8 to 10.5 oz per acre	6	63 oz per acre	0 days
	Cercospora leaf spot ( <i>Cercospora</i> spp.)				
	Powdery mildew ( <i>Erysiphe</i> spp.)				
	Suppression only Southern root rot (Sclerotium rolfsii)				

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

 $\ensuremath{\text{No}}$  restriction on livestock grazing or feeding for carrot culls.

Resistance Management: To limit the potential for development of resistance, DO NOT make more than six (6) applications of Pristine or other Group 7 or 11 fungicides per crop growing season.

Сгор	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Product	Minimum Time from Application to Harvest (PHI)
Cucurbit Vegetables Group Chayote Chinese waxgourd Citron melon Cucumber Gherkin Pumpkin Watermelon Edible gourd Hyotan Cucuzza Chinese okra Momordica spp. Balsam apple Balsam pear Bitter melon Chinese cucumber	Downy mildew (Pseudoperonospora cubensis) Alternaria blight (Alternaria cucumerina) Cercospora leaf spot (Cercospora citrulina) Gummy stem blight (Didymella bryoniae) Powdery mildew (Sphaerotheca fuliginea, Erysiphe cichoracearum)	12.5 to 18.5 oz per acre	4	74 oz per acre	0 days
Muskmelon Cantaloupe Casaba Crenshaw melon Golden pershaw melon Honeydew melon Honey balls Mango melon Persian melon Pineapple melon Santa Claus melon Snake melon	Anthracnose (Colletotrichum orbiculare)	18.5 oz per acre			
Summer squash Crookneck squash Scallop squash Straightneck squash Vegetable marrow Zucchini					
Winter squash Butternut squash Calabaza Hubbard squash Acorn squash Spaghetti squash					

# See Cucurbit Vegetables Group Information on next page. (Continued)

#### **Cucurbit Vegetables Group Information**

**Application Directions:** Begin applications of **Pristine® fungicide** 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.

**DO NOT** use **Pristine** tank mixes with additives or adjuvants on muskmelon crops such as cantaloupe and honeydew or crop injury may result.

For cucurbit crops other than melons, the use of additives or adjuvants may improve the performance of **Pristine**. However, BASF evaluations also indicate that under some conditions (particularly high temperatures and/or high additive rates), application of **Pristine** in combination with certain rates of silicone-based or oil-containing (petroleum or crop) additives or adjuvants can cause injury to some cucurbit crops.

BASF 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 tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Pristine** with other products.

The user assumes all risks associated with adding products to the **Pristine** spray solution. BASF cannot be held responsible for crop injury, reduced disease control or incompatibility due to additives, adjuvants or other products used in combination with **Pristine**. Refer also to the **Conditions of Sale and Warranty** section of this label.

To minimize the likelihood of crop injury, BASF recommends testing **Pristine** 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 BASF representative for more information concerning additives or adjuvants.

DO NOT tank mix Pristine with malathion, Kelthane<sup>®</sup> agricultural miticide, Thiodan<sup>®</sup> insecticide, Phaser<sup>®</sup> insecticide, Lannate<sup>®</sup> insecticide, M-Pede<sup>®</sup> insecticide, or Botran<sup>®</sup> fungicide as crop injury may result.

**Resistance Management:** To limit the potential of development of resistance, **DO NOT** make more than four (4) applications of **Pristine** per season.

**DO NOT** make more than one (1) application of **Pristine** before alternating to a labeled non-strobilurin (non-Qol) fungicide with a different mode of action for at least one application.

Crop	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Grapes (except Concord, Worden, Fredonia, Niagara and related varieties)	Angular leaf spot ( <i>Mycosphaerella angulata</i> ) Anthracnose ( <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> ) Aids in Control Only Summer bunch rot (Sour rot) ( <i>Cladosporium</i> spp. and <i>Aspergillus</i> spp.) Suppression Only Botrytis gray mold ( <i>Botrytis cinerea</i> )	8 to 12.5 oz per acre	5	69 oz per acre	14 days
	Botrytis gray mold <i>(Botrytis cinerea)</i>	18.5 to 23 oz per acre	3		

Application Directions: For powdery mildew control, begin applications of **Pristine® fungicide** as of bud break prior to onset of disease, using 8 oz per acre on a 10- to 14-day interval, or 8 - 12.5 oz per acre on a 14- to 21-day interval.

For black rot and downy mildew control, begin applications of **Pristine** as of pre-bloom prior to onset of disease and continue applications on a 10to 14-day interval.

For all other diseases listed except for Botrytis gray mold, begin applications of **Pristine** prior to onset of disease and continue applications on a 10to 14-day interval. **Pristine** applied at rates of 8 - 12.5 oz per acre for control of the above-mentioned diseases will also suppress Botrytis gray mold.

For control of Botrytis gray mold, apply 18.5 - 23 oz per acre of **Pristine** 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.

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 NY73.0136.17 due to foliar injury. Possible foliar injury could occur to Worden, Fredonia, Niagara, Steuben, Rougeon or related varieties. Not all varieties have been thoroughly tested.

Resistance Management: To limit the potential for development of resistance, DO NOT make more than six (6) applications of Pristine or other Group 7 or 11 fungicides per season.

Crop	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season		Minimum Time from Application to Harvest (PHI)
Hops	Powdery mildew (Erysiphe cichoracearum, Sphaerotheca spp) Downy mildew (Pseudoperonospora humuli)	14 oz per 100 gallons of dilute spray ( <b>DO NOT</b> use more than 28 oz per acre)	3	84 oz per acre	14 days

Application Directions: Begin applications of **Pristine® fungicide** 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 gallons of dilute spray applied to runoff. Adjust water volume to maintain thorough coverage. Use 25-50 gallons of dilute spray per acre prior to trellising and 100-200 gallons of dilute spray per acre thereafter. **DO NOT** use more than 200 gallons per acre of this mixture. If additional spray volume is needed for thorough coverage, use 28 oz of **Pristine** per acre in the required spray volume.

**Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than three (3) applications of **Pristine** per season. **DO NOT** make more than two (2) sequential applications of **Pristine** before alternating to a labeled fungicide with a different mode of action.

Restrictions: DO NOT use more than 200 gallons per acre of this mixture. If additional spray volume is needed for thorough coverage, use 28 oz of Pristine per acre in the required spray volume.

Crop	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Pistachio	Alternaria late blight ( <i>Alternaria</i> spp.) Botrytis blossom and shoot blight ( <i>Botrytis cinerea</i> ) Panicle and shoot blight ( <i>Botryosphaeria dothidea</i> )	10.5 to 14.5 oz per acre	4	58 oz per acre	14 days

Application Directions: Apply Pristine® fungicide prior to onset of disease development and continue on a 10- to 30-day interval.

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

Resistance Management: To limit the potential for development of resistance, DO NOT make more than four (4) applications of **Pristine** or other **Group 7** or **11** fungicides per season.

DO NOT make more than two (2) sequential applications of Pristine before alternating to a labeled fungicide with a different mode of action.

For aerial application to pistachio trees, use no less than 10 gallons of spray solution per acre.

Crop	Target Diseases	Product Use Rate per Application <sup>1</sup>	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Pome fruits Group	Alternaria blotch (Alternaria mali)	14.5 to 18.5 oz per acre	4	74 oz per acre	0 days
Apple Crabapple Loquat Mayhaw Oriental Pear Pear Quince	<ul> <li>Apple scab (Venturia inaequalis)</li> <li>Bitter rot (Colletotrichum spp.)</li> <li>Black rot/Frogeye leaf spot (Botryosphaeria obtusa)</li> <li>Brooks spot (Mycosphaerella pomi)</li> <li>Flyspeck (Zygophiala jamaicensis)</li> <li>Pear scab (Venturia pirina)</li> <li>Powdery mildew (Podosphaera leucotricha)</li> <li>Sooty blotch (disease complex)</li> <li>White rot (Botryosphaeria dothidea)</li> <li>Suppression only Cedar apple rust (Gymnosporangium juniperi-vir- ginianae)</li> <li>Quince rust (Gymnosporangium clavipes)</li> </ul>				

Application Directions for scab, powdery mildew, frogeye leaf spot and rust: Begin applications of Pristine® fungicide prior to disease development and continue on a 7- to 10-day interval. Use the higher rate and shorter interval when disease pressure is high. Application rates are based on a tree size requiring a standard dilute spray of 300 gallons per acre. **DO NOT** apply less than 14.5 oz/A of Pristine when spraying based on tree row volume.

Application Directions for sooty blotch, flyspeck, white rot, black rot, bitter rot and Alternaria blotch: Begin applications of Pristine 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. Application rates are based on a tree size requiring a standard dilute spray of 300 gallons per acre. **DO NOT** apply less than 14.5 oz/A of Pristine when spraying based on tree row volume.

No restriction on livestock grazing or feeding for pome fruits feed items.

**Resistance Management:** To limit the potential for development of resistance, **DO NOT** make more than four (4) applications of **Pristine** per season. **DO NOT** make more than two (2) sequential applications of **Pristine** before alternating to a labeled fungicide with a different mode of action.

<sup>1</sup>Application rates are based on a tree size requiring a standard dilute spray of 300 gallons per acre. **DO NOT** apply less than 14.5 oz of **Pristine** when spraying based on tree row volume.

Сгор	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Stone Fruits Group Apricot Cherry (sweet and tart) Nectarine Peach Plum (all varieties) Plumcot Prune	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>Sphaerotheca</i> spp., <i>Podosphaera</i> spp.) Ripe fruit rot ( <i>Monilinia fructicola,</i> <i>Monilinia laxa,</i> <i>Botrytis cinerea,</i> <i>Rhizopus</i> spp.) Rust ( <i>Tranzschelia discolor</i> ) Scab ( <i>Cladosporium</i> <i>carpophilum</i> ) Shothole ( <i>Wilsonomyces carpophilus</i> )	10.5 to 14.5 oz per acre	5	72.5 oz per acre	0 days

Application Directions: Begin application of Pristine<sup>®</sup> fungicide at pink bud or prior to onset of disease development and continue on a 7- to 14day interval.

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

Resistance Management: To limit the potential for development of resistance, DO NOT make more than five (5) applications of Pristine or other Group 7 or 11 fungicides per season.

DO NOT make more than two (2) sequential applications of Pristine before alternating to a labeled fungicide with a different mode of action.

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

Сгор	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Strawberries	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 to 23 oz per acre	5	115 oz per acre	0 days

Application Directions: Begin applications of Pristine® fungicide no later than 10% bloom, or prior to disease development, and continue on a 7to 14-day interval.

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

The restricted entry interval (REI) for treated strawberries is **12 hours**. Refer to the "**Agricultural Use Requirements**" box on page 3 for PPE required for early entry to treated areas as permitted under the Worker Protection Standard.

Resistance Management: To limit the potential for development of resistance, DO NOT make more than five (5) applications of **Pristine** or other **Group 7** or **11** fungicides per season.

Table 2. Crop-Specific Recommendations (Continued	d)
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Сгор	Target Diseases	Product Use Rate per Application	Maximum Number of Applications per Season	Maximum Product Rate per Season	Minimum Time from Application to Harvest (PHI)
Tree Nuts Group Almond Beech nut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert Hickory nut Macadamia nut Pecan Walnut (black and English)	Alternaria leafspot (Alternaria spp.) Anthracnose (Colletotrichum spp.) Blossom blight (Monilinia spp.) Eastern filbert blight (Anisogramma anomala) Leaf rust (Tranzschelia discolor) Scab (Cladosporium carpophilum, C. caryigenum) Green fruit rot (Botrytis cinerea) Shothole (Wilsonomyces carpophilus)	10.5 to 14.5 oz per acre	4	58 oz per acre	14 days (25 days for almond)

**Application Directions:** In almond, begin applications of **Pristine**<sup>®</sup> **fungicide** at pink bud and continue on a 7- to 14-day interval up to 25 days before harvest. In 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. In pecan, begin applications of **Pristine** prior to onset of disease development and continue on a 7- to 21-day interval for the control of scab. For all other crops listed above, apply **Pristine** 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.

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

No restriction on livestock feeding for almond hulls.

Resistance Management: To limit the potential for development of resistance, **DO NOT** make more than four (4) applications of **Pristine** or other **Group 7** or **11** fungicides per season.

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#### **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflects the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent permitted by law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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