





# Intrinsic® Brand Fungicide

# For disease control and plant health in ornamentals

#### **Active Ingredients:**

EPA Reg No. 7969-370

EPA Est. No.

# WARNING/AVISO

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 inside for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

# **Net Contents:**

BASF Corporation 26 Davis Drive, Research Triangle Park, NC 27709

<sup>\*</sup> Equivalent to 2.09 pounds of fluxapyroxad per gallon

<sup>\*\*</sup> Equivalent to 2.09 pounds of pyraclostrobin per gallon

FIRST AID				
<ul> <li>Call a poison control center or doctor immediately for treatment advi</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 or</li> <li>DO NOT give anything to an unconscious person.</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 respiratio preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>			
If on skin	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
	HOTLINE 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**

**WARNING.** May be fatal if swallowed. Wash thoroughly with soap and water after handling and before eating. drinking, chewing gum, using tobacco or using the toilet. Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves (such as natural rubber, 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 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:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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**

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, or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate. Observe caution when spraying in the vicinity of aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds and estuaries.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater.

**DO NOT** discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

#### Surface Water Advisory

This product is classified as having high potential for reaching aquatic sediment via 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 loading of this active ingredient or its degradates from runoff water and sediment. 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 potential to reach aquatic sediment via runoff.

#### **Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., bodies of water or nontarget crops) is minimal and when wind is blowing away from the sensitive areas.

#### **Groundwater Advisory**

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

# **Outdoor Residential Consumer Product Statements**

To protect the environment, **DO NOT** allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

### **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**.

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)
- Shoes plus socks

#### NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard of agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, nurseries, or greenhouses.

DO NOT enter or allow others to enter treated areas until sprays have dried.

#### 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 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 Handling**

**Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

# In Case of Emergency

In case of large-scale spillage regarding this product, call:

• CHEMTREC 1-800-424-9300

• BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

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

- 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.
- 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.

#### **Product Information**

Read the entire **Directions for Use** and **Conditions of Sale and Warranty** before using this product.

This package contains **Orkestra™ Intrinsic® brand fungicide**, a suspension concentrate (SC) containing fluxapyroxad and pyraclostrobin. The active ingredients in **Orkestra Intrinsic** belong to two classes of fungicide: the strobilurins or Quinone Outside Inhibitors (QoI), and the succinate-dehydrogenase (SDH) inhibitor classes. To maximize disease control, apply **Orkestra Intrinsic** in a regularly scheduled protective spray program and use in a rotation program with other fungicides.

Preventive applications optimize disease control, resulting in improved plant health.

Because of its highly specific activity, **Orkestra Intrinsic** has good residual activity against target fungi.

#### **Modes of Action**

Fluxapyroxad and pyraclostrobin, the active ingredients of **Orkestra Intrinsic**, belong to the groups of respiration inhibitors classified by the U.S. EPA and Canada PMRA as target sites of action **Group 7** and **Group 11** fungicides, respectively.

# **Resistance Management Recommendations**

Orkestra Intrinsic contains fluxapyroxad and pyraclostrobin, a premix of a **Group 7** and a **Group 11** fungicide. Fungal isolates resistant to **Group 11** (strobilurin or Qol) fungicides, such as pyraclostrobin, azoxystrobin, trifloxystrobin, and fluoxastrobin, and/or **Group 7** (carboxamide) fungicides (such as boscalid or flutolanil) may eventually dominate the fungal population if **Group 7** or **Group 11** fungicides are used predominantly and

repeatedly in the same area in successive years as the primary method of control for the targeted pathogen species. This may result in reduction of disease control by **Orkestra Intrinsic** or other **Group 7** or **Group 11** fungicides. Apply **Orkestra Intrinsic** in an alternation or tank mix program with other registered fungicides that have different modes of action and to which pathogen resistance has not developed.

# Integrated Pest (Disease) Management (IPM)

Integrate **Orkestra Intrinsic** into an overall disease and pest management program which includes selection of disease tolerant varieties, growing under optimum densities, and managing fertility. Also important are regular scouting, good cultural practices including plant residue management, proper timing and placement of irrigation, and manipulation of environmental conditions to prevent fungal development where possible.

# **Application Information**

#### **Use Sites**

- Greenhouses, lathhouses, and shadehouses
- Outdoor nurseries (including container, bench, flat, bedgrown or field-grown ornamentals)
- Forest and conifer nurseries, and plantations
- Retail nurseries
- Ornamentals found in interiorscapes, golf courses, recreational landscapes, and residential and commercial landscapes

Begin **Orkestra Intrinsic** applications prior to disease development and continue throughout the season at specified intervals following resistance management guidelines. For application techniques and application equipment instructions, refer to **Table 1. Use Sites and Application Techniques**. **Orkestra Intrinsic** works best when used as part of a preventive disease management program. Use of **Orkestra Intrinsic** as a late curative or eradicant treatment may not result in satisfactory disease control.

**Orkestra Intrinsic** may be applied to juvenile fruit and nut trees, vines, brambles and bushberries grown in commercial ornamental production nurseries. Immature and/or inedible fruits or nuts or berries may appear on the plant but are not intended for harvest or consumption.

**DO NOT** exceed the application rate or fail to comply with the use restrictions listed in the **Resistance Management Recommendations** and **Restrictions and Limitations** sections. Make all applications according to the use directions in this label. Failure to follow directions and precautions on this label may result in injury and/or inferior disease control.

Label directions are based on data without additives. For specific additive and tank mixing instructions, see the **Additives and Tank Mixing** section.

**Table 1. Use Sites and Application Techniques** 

Use Sites	Application Techniques	Application Equipment
Greenhouses, lathhouses and shade houses	Ground (foliar spray or drench)	Overhead track sprayer, backpack, hand-wand
	Chemigation	Sprinkler and drip irrigation
Outdoor nurseries (Container, bench, flat, bed-grown or	Ground (foliar spray or drench)	Groundboom, backpack, hand-wand
field-grown)  Forest and conifer	Chemigation	Sprinkler and drip irrigation
nurseries and plantations	Aerial (foliar spray)	Aircraft (fixed-wing and helicopter)
Retail nurseries Ornamentals found in golf courses, recreational landscapes, and residential and commercial landscapes	Ground (foliar spray)	Groundboom, backpack, hand-wand

# **Application Instructions**

Apply Orkestra™ Intrinsic® brand fungicide according to the rate, timing, resistance management and adjuvant use directions in Table 2. Application Rates and Intervals for Orkestra™ Intrinsic® brand fungicide on Ornamental Diseases in this label. DO NOT make more than two (2) sequential applications of Orkestra Intrinsic before alternating to a labeled non-Group 7 or non-Group 11 fungicide.

### **Cleaning Spray Equipment**

Spray equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure plants was used prior to **Orkestra Intrinsic**. Consult a BASF representative or local agricultural authorities for more information concerning tank-cleaning products.

#### Foliar-directed and Crown-directed

Apply Orkestra Intrinsic at use rates and intervals stated in Table 2. Application Rates and Intervals for Orkestra™ Intrinsic® brand fungicide on Ornamental Diseases.

Apply **Orkestra Intrinsic** as a broadcast or banded spray targeted at the foliage or crown of the plant. Apply to runoff in sufficient water to ensure complete coverage of the target plant. Thorough coverage and wetting of foliage, crown and base of the plant and growth media surrounding the crown is necessary for best control. Refer to **Table 2** for specific use directions for control of specific diseases. Repeat applications at specified intervals (plus alternations for resistance management) for as long as required.

# **Aerial Application**

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

Apply **Orkestra Intrinsic** aerially to field-grown nursery plants using a minimum of 10 gallons per acre of finished spray solution. Use the **Orkestra Intrinsic** rate per 100 gallons in **Table 2** concentrated into 10 gallons per acre only for aerial applications. **DO NOT** apply aerially when environmental conditions favor drift from target area. Drift potential is lowest when wind speed does not exceed 10 mph.

# **Spray Drift Management**

**DO NOT** spray when conditions favor drift beyond area intended for application. Conditions that contribute to drift include thermal inversion, wind speed and direction, spray nozzle/pressure combinations, spray droplet size, temperature/humidity, etc. Contact your state extension agent for spray drift prevention guidelines in your area. All application equipment must be properly maintained and calibrated using appropriate carriers. Avoiding spray drift at the application site is the responsibility of the applicator.

When drift may be a problem, take measures to reduce drift, including:

- 1. **DO NOT** spray if wind speeds exceed 10 mph. If non-target crops are located downwind, use caution when spraying if wind is present.
- 2. Use caution when conditions are favorable for drift (high temperatures and or low relative humidity).
- 3. **DO NOT** apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.

# **Aerial Application Methods and Equipment**

The interaction of many equipment-related and weatherrelated factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

**DO NOT** apply under circumstances where possible drift to unprotected persons, to food, forage, or other plantings that might be damaged, or crops thereof rendered unfit for sale, use or consumption can occur.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

- 1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the fixed wingspan or 90% of rotor blade diameter.
- 2. Nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.

Spray should be released at the lowest possible height consistent with good pest control and flight safety. Aerial

should be avoided. Ground applications more than 20 inches above the crop canopy should be avoided. Make aerial or ground applications when wind velocity favors ontarget product deposition (approximately 3 to 10 mph). **DO NOT** apply when wind velocity exceeds 10 mph. Avoid applications when wind gusts approach 10 mph. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

applications more than 10 feet above the crop canopy

Where states have more stringent regulations, they must be observed.

# Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. Use the largest droplet size consistent with acceptable efficacy. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see **Wind**; **Temperature and Humidity**; and **Temperature Inversions**).

#### Controlling droplet size:

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure DO NOT exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Wind

**DO NOT** apply at wind speeds greater than 10 mph. Drift potential is lowest when wind speed does not exceed 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Avoid applications below 2 mph due to variable wind direction and high inversion potential. Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

# **Temperature and Humidity**

Low humidity and high temperatures increase the evaporation of spray droplets and, therefore, the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures. When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation.

Droplet evaporation is most severe when conditions are both hot and dry.

### **Temperature Inversions**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### **Sensitive Areas**

Apply **Orkestra™ Intrinsic® brand fungicide** only when the potential for drift to adjacent sensitive areas (e.g. bodies of water or nontarget plants) is minimal and when wind is blowing away from the sensitive areas.

# Directions for Use Through Irrigation Systems

# **Sprayer Preparation**

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

### **Drip Irrigation**

Apply **Orkestra Intrinsic** through drip irrigation systems to potted ornamentals or to bedded, field-grown ornamentals for soilborne disease control. Apply 4 to 10 ozs **Orkestra Intrinsic** per acre as a preventive disease application. The soil or potting media must have adequate moisture capacity prior to drip application.

Terminate drip irrigation at fungicide depletion or after 6 hours from start, whichever is shorter. For maximum efficacy, delay subsequent irrigation (water only) for at least 24 hours following drip application.

#### Sprinkler Irrigation

Apply **Orkestra Intrinsic** by sprinkler irrigation to potted ornamentals or to bedded, field-grown ornamentals. Apply this product through pivot, lateral move travelers, spray guns, solid set or hand-moved irrigation systems in the field, or moving track sprayers in the greenhouses.

**DO NOT** apply this product through any other type of irrigation system, except as specified on this label.

Apply with pivot or continuous-move equipment distributing 1/2 acre-inch or less during treatment. Use the least amount of water required for proper distribution and coverage. If stationary systems (solid set, handlines or wheel lines other than continuous-move) are used, apply this product by injection into no more than the last 20 to 30 minutes of the set.

**DO NOT** spray when conditions favor drift beyond the area intended for application. Plant injury and lack of effectiveness 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.

If you have questions about calibration, contact state extension service specialists, 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 greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

# Specific Instructions for Public Water Systems

 Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone 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 must 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 2 times 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 that 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.

# **Additives and Tank Mixing**

Additives or spray adjuvants are usually not necessary for use with **Orkestra™ Intrinsic® brand fungicide**. However, under some conditions, the use of additives or adjuvants may improve the performance of Orkestra Intrinsic. If additives or spray adjuvants are included, use only surfactants labeled for use on ornamental plants in combination with **Orkestra Intrinsic**. The use of 100% formulated organosilicone products has been shown to be injurious; however commercial blends may be safe under grower conditions. Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or plant injury may result from mixing Orkestra Intrinsic with other products. Always test the additives and tank mixes on a small group of representative plants prior to large-scale use. Consult a BASF representative or local agricultural authorities for more information concerning additives.

If an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

**Orkestra Intrinsic** can be tank mixed with most recommended fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives. If tank mixtures are used, follow rate restrictions, label

directions and precautions on all labels. Refer to the **Restrictions and Limitations** section of this label for specific restrictions and additional precautions.

# **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.

- 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 ed source at the source temperature.
- Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspoemulsions). 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.
- 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, or fine particles that precipitate to the bottom, or 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.
- Water-dispersible products (such as suspension concentrates including Orkestra<sup>™</sup> Intrinsic<sup>®</sup> brand fungicide, dry flowables, suspo-emulsions, or wettable powders)
- 6. Water-soluble products
- Emulsifiable concentrates (such as oil concentrates when applicable)
- 8. **Water-soluble additives** (such as ammonium sulfate [AMS] or urea ammonium nitrate [UAN] when applicable)
- 9. Remaining quantity of water

Ensure each component is thoroughly mixed and suspended before adding tank mix partners. Maintain constant agitation during application.

### **Restrictions and Limitations**

- Maximum seasonal use rate DO NOT apply more than a total of 49 fl ozs Orkestra Intrinsic per crop per acre per year [0.8 lb ai/A fluxapyroxad, 0.8 lb ai/A pyraclostrobin].
- When spraying in the vicinity of aquatic areas, DO NOT make aerial applications.
- When spraying in the vicinity of aquatic areas, for ground applications:
- Maintain a 15 foot buffer when setting the spray boom height greater than 20 inches.
- No buffer required for spray boom heights 20 inches or less.
- Use fine-to-medium/coarse spray droplet size spectrum.
- For foliar applications to outdoor ornamentals, DO NOT apply more than 44 fl ozs/A Orkestra Intrinsic per application [0.72 lb ai/A fluxapyroxad, 0.72 lb ai/A pyraclostrobin].
- For drench applications, **DO NOT** apply more than 49 fl ozs/A **Orkestra Intrinsic** per application [0.8 lb ai/A fluxapyroxad, 0.8 lb ai/A pyraclostrobin].
- **DO NOT** exceed 11 ozs **Orkestra Intrinsic** per 100 gallons of dilution for foliar applications in greenhouses.
- DO NOT make more than 2 sequential Orkestra Intrinsic applications before alternating to a non-Group 7 or non-Group 11 fungicide.
- **DO NOT** apply to plants that show injury produced by prior pesticide applications.
- DO NOT mix Orkestra Intrinsic with carbamates, organophosphates, insect growth regulators, or plant growth regulators.
- DO NOT expose Wintercreeper (Euonymus fortunei 'vegetus') or Ninebark (Physocarpus opulifolius) to spray or drift containing Orkestra Intrinsic.
- For aerial application in New York State, DO NOT apply within 100 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).
- Not for sale, distribution, or use in Nassau and Suffolk counties, New York except as permitted under FIFRA 24(c), Special Local Need registration.

Table 2. Application Rates and Intervals for Orkestra™ Intrinsic® brand fungicide on Ornamental Diseases

<b>Disease</b> Pathogen	Product Use Rate per Application (fl ozs product/100 gallons)	Application Interval* (days)	Comments
Anthracnose Colletotrichum spp.	8 to 10	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Crown and basal rot Calonectria sp. Cylindrocladium spp. Fusarium spp. Rhizoctonia solani Sclerotinia spp.	8 to 10	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development. The crown and base of the plant and the soil or growing media surrounding the crown must be thoroughly covered.
Downy mildew Peronospora spp. Pseudoperonospora spp.	8 to 10	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Bremia spp. Plasmopara spp.	10		
Flower and petal blight Botrytis spp.	8	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to
Coniothyrium spp. Exobasidium spp. Monilinia spp. Ovulina spp.	5 to 7		disease symptom development.
<b>Leaf spot</b> <i>Alternaria</i> spp.	4 to 6	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to or
Blumeriella spp. Cercospora spp. Helminthosporium spp. Mycosphaerella spp. Myrothecium spp. Phyllosticta spp. Sphaceloma spp. Wilsonomyces spp.	8 to 10		at the first disease symptom development.
Diplocarpon rosae Entomosporium spp.	8		
Phytophthora aerial blight Suppression only Phytophthora spp.	10	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Powdery mildew Erysiphe sp. Golovinomyces sp. Leveillula spp. Microsphaera spp. Oidium sp. Phyllactinia spp. Podosphaera sp. Sphaerotheca sp. Uncinula sp.	6 to 8	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to or at the first disease symptom development.

(continued)

Table 2. Application Rates and Intervals for Orkestra™ Intrinsic® brand fungicide on Ornamental Diseases (continued)

Disease Pathogen	Product Use Rate per Application (fl ozs product/100 gallons)	Application Interval* (days)	Comments	
Rot, blight  Botrytis spp.	8	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to	
Botryosphaeria spp. Coniothyrium spp. Exobasidium spp.	5 to 7		disease symptom development.	
Rust Puccinia spp. Uromyces spp.	6 to 8	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.	
Albugo spp. Coleosporium spp. Gymnosporangium spp.	4 to 11			
Scab Venturia spp. Cladosporium spp.	4 to 8	7 to 10	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.	
Stem or twig blights and dieback Botrytis spp. Botryosphaeria spp. Cylindrocladium spp. Gloeosporium spp. Monilinia spp. Nectria spp. Phoma Phomopsis spp. Sclerotium rolfsii Volutella spp.	8 to 10	7 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.	
Soilborne disease Cylindrocladium spp. Fusarium spp. Rhizoctonia solani Sclerotinia spp. Sclerotium rolfsii Suppression only Thielaviopsis spp.	8 to 10	7 to 28	Use as a preventive treatment. Drench the soil with a solution of 8 to 10 fl ozs of <b>Orkestra Intrinsic</b> per 100 gallons. Thorough coverage and wetting of root zone, crown and base of the plant, and surrounding soil and growing median necessary for best control.  Provide a well-drained substrate at the time of	
Phytophthora spp. Pythium spp.	8 to 10		application. Use enough solution to wet the root zone of the plant. Avoid watering plants for several hours before application in order to improve plant uptake of the product. Repeat applications as needed within 7 to 28 days.	

<sup>\*</sup>The stated interval applies to conditions under which moderate-to-high disease pressure is expected. If conditions are unfavorable for infection, or if disease pressure is absent, the interval may be extended up to 28 days.

#### **Drench**

Apply **Orkestra™ Intrinsic® brand fungicide** preventively as a drench treatment for control of certain soilborne, seedling and crown diseases in production ornamentals such as *Rhizoctonia solani*, and *Fusarium* spp.

Thorough coverage and wetting of root zone, crown and base of the plant and surrounding soil and growing media is necessary for best control. Use enough solution to wet the root zone of the plant. Provide a well-drained substrate at the time of application. Avoid watering plants for several hours before application in order to improve plant uptake of the product. Repeat applications as needed within 7 to 28 days.

DO NOT use Orkestra Intrinsic without a tank mix partner after symptoms of soilborne disease have become evident because control may not be satisfactory. See Table 2. Application Rates and Intervals for Orkestra™ Intrinsic® brand fungicide on Ornamental Diseases for further soilborne disease instructions.

#### **Plant Tolerance**

The phytotoxic potential of **Orkestra Intrinsic** has been assessed on a wide variety of common ornamental plants with no phytotoxicity observed. Refer to **Table 3. Tolerant Plant Species** for a limited list of plants shown to be tolerant to **Orkestra Intrinsic**. Not all plant species, varieties, and cultivars have been tested for tolerance to **Orkestra Intrinsic**, possible tank mix combinations with **Orkestra Intrinsic**, pesticide treatments preceding or following those of **Orkestra Intrinsic**, and combinations of **Orkestra Intrinsic** with adjuvants or surfactants.

Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Additives or spray adjuvants are usually not necessary for use with **Orkestra Intrinsic**. If they are needed, use only surfactants approved for ornamental plants in combination with **Orkestra Intrinsic**. The use of 100% formulated organosilicone products has been shown to be injurious. However, commercial blends may be safe under grower conditions. Test the product combination on a sample of the plants to be treated to ensure that a phytotoxic response will not occur prior to large-scale use.

Because many cultivars within a plant species vary in tolerance to chemical applications and growing conditions, the grower must recognize these differences and test the product accordingly. At a minimum, always test a small group of representative plants for tolerance to **Orkestra Intrinsic** under local growing conditions and before large-scale use. Grower assumes responsibility for testing species suitability under local growing conditions by treating a small number of plants at the specified rate. At a minimum, this should include evaluating treated plants for several weeks following treatment for possible injury or other effects.

To the extent consistent with applicable law, by applying **Orkestra Intrinsic**, the user assumes responsibility for any crop damage or other liability associated with factors beyond the manufacturer's control, such as weather, presence of other materials, and manner or use of application. Follow all **Restrictions and Limitations** in this label.

**DO NOT** expose Wintercreeper (*Euonymus fortunei* 'vegetus') and Ninebark (*Physocarpus opulifolius*) to spray or drift containing **Orkestra Intrinsic** (see **Table 4. Sensitive Plant Species**).

# **Table 3. Tolerant Plant Species**

Plants in this table have been found to be tolerant to **Orkestra™ Intrinsic® brand fungicide** when it is applied according to the use directions in this label.

Ornamental Type	Such as but not limited to:		
Annual bedding	Alyssum, Carnation, Celosia, Chrysanthemum, Coleus, Shasta Daisy, Dusty Miller, Geranium, Impatiens*, Lantana, Lisianthus, Marigold, Pansy, Petunia*, Salvia, Snapdragon, Stock, Tickseed, Verbena, Viola*, Zinnia		
Perennials	Black-eyed Susan, Blanketflower, Coneflower, Fountain grass, Lantana, Lavender, Lily turf, Periwinkle, Vinca, Phlox, Sedum		
Woody ornamentals	Azalea, Barberry, Boxwood, Bridal Wreath, Euonymus, Gardenia, Gaura, Holly, Hydrangea, Lilac, Rose, Viburnum		
Evergreen trees**	Arborvitae, Douglas Fir, Fir, Yew		
Deciduous trees**	Maple, Oak		
Flowering trees**	Camellia, Crabapple, Crape Myrtle		
* See Table 4. Sensiti	ve Plant Species.		
** <b>DO NOT</b> use fruit, nuts or sap from treated trees for food or feed.			

# **Table 4. Sensitive Plant Species**

Use caution in applying **Orkestra Intrinsic**: Always treat a small number of plants prior to large-scale use to ensure that plant injury will not occur.

Plant species <b>NOT</b> Tolerant to <b>Orkestra Intrinsic</b> :	Ninebark	Physocarpus opulifolius	
	Wintercreeper	Euonymus fortunei 'vegetus'	
Applications to flowers have occasionally shown	Impatiens	Impatiens walleriana	
discoloration.	Petunia	Petunia x hybrida, Petunia spp.	
Occasional stunting has been observed from	Carnation/Dianthus	Dianthus spp.	
drench applications.	Impatiens	Impatiens walleriana	
	Viola/Violet	Viola cornuta, V. wittrockiana	

# Table 5. Rate Conversion for Orkestra™ Intrinsic® brand fungicide on Ornamental Plants and Ornamentals in Landscape Maintenance

Ounces of **Orkestra Intrinsic** per 100 gallons of spray solution.

Use Rate (fl ozs product/ 100 gallons)	Spray Volume (ml of product/ 2 gallons)	Spray Volume (ml of product/ 5 gallons)	Spray Volume (ml of product/ 10 gallons)	Spray Volume (ml of product/ 25 gallons)	Spray Volume (ml of product/ 50 gallons)
4.0	2.4	6.0	12.0	30.0	60.0
6.0	3.6	9.0	18.0	45.0	90.0
8.0	4.8	12.0	24.0	60.0	120.0
10.0	6.0	15.0	30.0	75.0	150.0

# **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the 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 consistent with applicable 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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BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709

