

ORNAMENTALS - LEAF SPOTS

General Information

GENERAL INFORMATION

Insignia fungicide is a broad-spectrum fungicide recommended for the control of many important diseases of turfgrass and ornamentals. For maximum efficacy, apply Insignia preventively. Insignia may be applied as a solo foliar spray or in tank mixes with other registered fungicides.

DO NOT exceed the recommended application rate or fail to comply with use restrictions listed in the Resistance Management and Restrictions and Limitations sections. All applications must be made according to the use directions that follow. Failure to follow directions and precautions on the label may result in injury and/or inferior disease control.

This package contains Insignia fungicide, a water dispersible granule (WG). The active ingredient in Insignia, pyraclostrobin, is a member of the strobilurin class of chemistry and is derived from a natural antifungal substance.

Optimum disease control is achieved when Insignia is applied in a regularly scheduled protective spray program and used in a rotation program with other fungicides. Because of its high specific activity, Insignia has good residual activity against target fungi.

Mode of Action: Pyraclostrobin, the active ingredient in Insignia, belongs to the group of respiration inhibitors classified by the USEPA and Canada PMRA as Quinone Outside Inhibitors (QoI) or Target Site of Action Group 11 fungicides.

APPLICATION INFORMATION

Use Sites:

Use on turfgrass - Insignia may be used for disease control in the following turf use sites:

- golf courses
- residential, institutional, commercial, and municipal lawns

- parks
- recreational areas including sports and athletic fields
- cemeteries
- sod farms

Use on ornamental plants - Insignia may be used for disease control on ornamentals, including flower bulbs and forest and conifer nurseries and plantations.

Use sites include:

- outdoor nurseries
- retail nurseries
- greenhouses
- lath- and shadehouses
- containers
- residential and commercial landscapes
- interiorscapes
- recreational areas including golf courses

Application Instructions:

- Apply the recommended rate of Insignia as instructed in the Use Directions sections with ground or aerial spray equipment. Use the shorter specified application interval and/or the higher specified rate when prolonged favorable disease conditions exist.
- Apply Insignia using sufficient water volume and pressure for adequate coverage of the foliage.
- Calibrate spray equipment prior to use.
- For maximum efficacy, apply Insignia prior to or in the early stages of disease development. Use of Insignia as a late curative or eradicator treatment may not result in satisfactory disease control.
- After application, allow foliage to dry prior to mowing or irrigating.
- Actual length of disease control will vary depending on environmental conditions, disease pressure, and management practices.

Ground Application

Apply Insignia at the rates indicated in the Use Directions sections in 2 to 4 gallons of water per 1000 square feet (87 to 174 gallons per acre). Repeat applications at the specified interval as necessary.

Aerial Application

Aerial application is permitted only on sod farms and the following production ornamentals:

- container and field nurseries
- flower bulb production
- forest and conifer nurseries

Apply Insignia at the rates indicated in the Use Directions sections in no less than 10 gallons of spray solution per acre. Repeat applications at the specified interval as necessary. DO NOT apply when conditions favor drift from target area.

DO NOT apply by air in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.

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.

Aerial Application Methods and Equipment

The interaction of many equipment- and weather-related 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 wingspan or rotor.
2. Nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.

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

Limitations, Restrictions, and Exceptions

PRODUCTION ORNAMENTALS AND LANDSCAPE MAINTENANCE USE DIRECTIONS

Insignia fungicide is recommended for control of certain pathogens causing foliar, aerial, and crown rot diseases, including scab, blights, leaf spots, powdery and downy mildews, anthracnose, and rusts of ornamental plants and flower bulbs.

Begin applications of Insignia prior to disease development and continue throughout the season at specified intervals following resistance management guidelines. Insignia works best when used as part of a preventive disease management program. Use of Insignia as a late curative or eradicant treatment may not always result in satisfactory disease control.

Insignia should be integrated into an overall disease and pest management program that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, pruning, plant residue management, proper timing and placement of irrigation, and manipulation of environmental conditions to prevent fungal development where possible.

Plant Tolerance

The phytotoxic potential of Insignia has been assessed on a wide variety of common ornamental plants with no phytotoxicity observed. Refer to Table 6 for the list of

plants shown to be tolerant to Insignia. Not all plant species and their varieties and cultivars have been tested for tolerance to Insignia, possible tank mix combinations of Insignia, pesticide treatments preceding or following those of Insignia, and combinations of Insignia with adjuvants or surfactants. Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Therefore, before using Insignia, test the product on a sample of the plant to be treated to ensure that a phytotoxic response will not occur prior to large-scale use. DO NOT expose grapes of varieties Concord, Worden, Fredonia, and Niagara to spray or drift containing Insignia, as injury may result. DO NOT expose flowering Impatiens (*Impatiens* spp.) or flowering Petunia (*Petunia* sp.), Nine Bark (*Physocarpus opulifolius*), or Wintercreeper (*Euonymus vegetus*), to spray or drift containing Insignia, as injury may result (see Table 7).

Use with additives

Label directions are based on data without additives. Additives or spray adjuvants are usually not necessary for use with Insignia. If so desired, use only surfactants approved for ornamental plants in combination with Insignia. Test the product on a sample of the plant to be treated to ensure that injury will not occur prior to largescale use. DO NOT use organosilicone-based adjuvants with Insignia, as injury may result on certain ornamental species. Always test tank mixes on a small group of representative plants prior to broadscale use.

RESTRICTIONS AND LIMITATIONS

- For outdoor uses, DO NOT apply more than a total of 15 pounds of Insignia per acre per year.
- For greenhouse uses, DO NOT make more than 8 applications of Insignia per year.
- DO NOT apply to plants that show injury (leaf phytotoxicity or plant stunting) produced by prior pesticide applications.
- DO NOT use on crops intended for food or feed use.
- DO NOT apply by air in ornamental uses other than production ornamentals. Use sites permitted include:
 - container and field nurseries
 - flower bulb production

- forest and conifer nurseries
- DO NOT use in vegetables grown in greenhouses for crop production, or in vegetable production of transplants for outdoor use.
- DO NOT expose the following to spray or drift containing Insignia, as injury may result:
 - Grapes of varieties Concord, Worden, Fredonia, and Niagara
 - Wintercreeper (*Euonymus vegetus*)
 - Nine Bark (*Physocarpus opulifolius*)
 - Flowering Impatiens (*Impatiens* spp.)
 - Flowering Petunia (*Petunia* sp.)
- Resistance Management: To limit the potential for development of resistance, DO NOT make more than two (2) sequential applications of Insignia. Then alternate to a labeled fungicide with a different mode of action.

APPLICATION INFORMATION

Apply Insignia according to the rate, timing, resistance management and adjuvant use recommendations in Tables 3 and 4 in the label. Insignia may be applied by ground sprayer, aerial equipment, or through sprinkler and drip irrigation systems.

Foliar- and Crown-Directed: Apply Insignia at use rates and intervals stated in Tables 3 and 4. Under light to moderate disease pressure, use the lower rates on a 7-day interval or the higher rates on a 14-day interval. Under environmental conditions that promote severe disease development, use the higher rates on a 7-day interval.

Apply Insignia 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 3 for specific use directions for control of specific diseases. Repeat applications at specified intervals (plus alternations for resistance management) for as long as required.

Drench: Insignia may be applied preventively as a drench treatment for control of certain soil-borne, seedling and crown diseases in production ornamentals. For

control of *Rhizoctonia solani* and *Phytophthora* spp., drench the soil with a solution of 8 to 16 ounces of Insignia per 100 gallons. Thorough coverage and wetting of root zone, crown and base of the plant, and surrounding growth media is necessary for best control. Repeat applications as needed within 7 to 21 days. See Tables 4 and 6 for more information regarding drench treatments. BASF does not recommend using Insignia fungicide after symptoms of soilborne disease have become evident, as control may not be satisfactory.

Dip Application for Bulbs: Clean and treat bulbs within 24 to 48 hours of digging. Prepare suspension in water with the amount of Insignia stated in Tables 5 and 6. Submerge the bulbs completely in the dipping suspension for 15 to 30 minutes. Discard suspension (1) when it becomes dirty, (2) after using five times, or (3) after 24 hours, whichever occurs first. DO NOT discard the runoffs and wastes from the dipping operation in a drainage that could contaminate public water systems.

Insignia fungicide - Tolerant Plant Species

Plants given have been found to be tolerant to Insignia when it is applied according to the use recommendations stated in the label.

The phytotoxic potential of Insignia has been assessed on a wide variety of common ornamental plants with no phytotoxicity observed. Not all plant species and their varieties and cultivars have been tested for tolerance to Insignia, possible tank mix combinations of Insignia, pesticide treatments preceding or following those of Insignia, and combinations of Insignia with adjuvants or surfactants. Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Therefore, before using Insignia, test the product on a sample of the plant to be treated to ensure that a phytotoxic response will not occur prior to large-scale use.

Additives or spray adjuvants are usually not necessary for use with Insignia. If they are needed, use only surfactants approved for ornamental plants in combination with Insignia. Test the product combination on a sample of the plant to be treated to ensure that a phytotoxic response will not occur prior to large-scale use. DO NOT use organosilicone-based adjuvants with Insignia, as plant phytotoxicity may result on certain ornamental species.

Plant Species NOT Tolerant to Insignia:

DO NOT expose these species or varieties to Insignia.

Grape - Concord, Worden, Fredonia, Niagara: Vitis sp.

Impatiens - flowering: Impatiens - flowering

Nine Bark: Physocarpus opulifolius

Petunia - flowering: Petunia sp. - flowering

Wintercreeper: Euonymus vegetus

Application Interval: 7-14 days

- 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.

Comments:

Use preventively. Begin applications when conditions are favorable for fungal infection, prior to or at the first disease symptom development.

For control of *D. rosae*, tank mix with a triazole or mancozeb-containing fungicide.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Band application](#)

Rates

[field rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[When conditions are favorable for fungal infection, prior to disease symptom development.](#)