

FOR DRENCH USE ON HERBACEOUS AND WOODY PLANTS IN GREENHOUSE, NURSERY CONTAINER, OR FIELD PRODUCTION

General Information

Product Information

Empress Intrinsic brand fungicide is a broad spectrum fungicide applied as a drench for the control of certain soilborne seedling and crown diseases in production ornamentals, forest and conifer nurseries, and plantations in the following use sites:

- Greenhouses
- Interiorscapes
- Lathhouses and shadehouses
- Outdoor nurseries (container or field)
- Retail nurseries

Applications of Empress prior to disease development (preventively) optimize disease control, resulting in improved plant health. Apply Empress solo or in tank mixes with other registered fungicides. DO NOT exceed the specified application rate or fail to comply with use restrictions listed in the label. Failure to follow directions and precautions on the label can result in injury and/or inferior disease control.

Empress is a suspension concentrate (SC) containing the active ingredient pyraclostrobin, a member of the strobilurin class of chemistry derived from a natural antifungal substance.

To maximize disease control, apply Empress in a regularly scheduled protective spray program and use in a rotation program with other fungicides. Empress has good residual activity against target fungi.

Resistance Management

Mode of Action

Pyraclostrobin, the active ingredient in Empress belongs to the group of respiration inhibitors classified as Quinone Outside Inhibitors (QoI) or target site of action Group 11 fungicides. Empress is effective against pathogens resistant to Non-Group 11 fungicides, such as the dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. Repeated use of Group 11 fungicides, including pyraclostrobin, azoxystrobin, fluoxastrobin and trifloxystrobin, can lead to fungal populations that are resistant to these fungicides. Empress will be less effective in controlling diseases where resistant fungi are present.

Resistance Management Advisory

The following instructions can delay the development of fungicide resistance:

1. Limited sequential applications - To maintain performance in ornamental plants, DO NOT make more than 2 sequential applications of Empress. Alternate with a fungicide(s) of a different mode of action, such as Orvego fungicide, Stature SC fungicide, Segway™ fungicide or Subdue Maxx fungicide before reapplying Empress. DO NOT alternate Empress with other Group 11 fungicides.
2. Tank mixtures - Tank mixing 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 can delay resistance development. Use at least the minimum labeled rates of each fungicide in the tank mix.
3. Integrated Pest Management (IPM) - Integrate Empress into an overall disease and pest management program. Follow cultural practices known to reduce disease development. Empress can be used in advisory (disease forecasting) programs, which recommend application timing based on environmental factors favorable for disease development.
4. Monitoring - Monitor the success of each fungicide in controlling the targeted pathogen and record other factors that can influence fungicide performance and/or disease development. If a Group 11 target site fungicide, such as Empress, appears to be less effective against a pathogen than in previous applications, contact a BASF representative or local expert for further investigation.

Plant Tolerance

Empress has been applied to a wide variety of common ornamental plants without observed plant injury. Not all cultivars, varieties or species have been tested for tolerance to Empress. Refer to Table 4 for the list of plants shown to be tolerant to Empress.

- Many cultivars within a plant species vary in tolerance to growing conditions and chemical applications. The grower must recognize these differences and test the product accordingly.
- DO NOT tank mix combinations with other pesticides or additives that have not been tested for tolerance under local conditions. If tank mixed with another product, always test a small group of representative plants for tolerance prior to large-scale use.
- DO NOT tank mix Empress with an organophosphate insecticide or a plant growth regulator.
- Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Always test a small group of representative plants for tolerance to Empress under local growing conditions prior to large-scale use.
- The use of an adjuvant or surfactant is not necessary when making a drench application.
- DO NOT expose plants listed in Table 5 to spray or drift containing Empress Intrinsic brand fungicide as injury can result.

Restrictions and Limitations

- For outdoor uses, DO NOT apply more than 1.5 gals of Empress product/acre/year, or 4.4 fl ozs per 1,000 sq ft/year. See Table 2 as a guide for maximum number of applications based on rate and spray volumes.

- For greenhouse uses, DO NOT make more than 8 applications of Empress per crop per year. - DO NOT apply to plants exhibiting injury (leaf phytotoxicity or plant stunting) produced by prior pesticide applications.
- DO NOT tank mix Empress with an organophosphate insecticide or a plant growth regulator when making an application.
- DO NOT use on crops intended for food or feed use grown in or for agricultural production.
- DO NOT use on crops grown in greenhouses for agricultural production or transplants grown in greenhouses for agricultural fields.
- DO NOT apply to ornamentals planted in landscape areas, including residential areas, parks, golf courses, cemeteries, roadside plantings or other similar areas.
- DO NOT apply by overhead irrigation to fruit and nut trees, blackberries, cranberries, or grapes (see Table 3).
- Resistance Management - To limit the potential for development of resistance in ornamental plants, DO NOT apply more than 2 sequential applications of Empress. Rotate to a different mode of action before reapplying Empress.
- DO NOT expose plants listed in Table 5 to spray or drift containing Empress as injury can result.
- DO NOT apply by aircraft.

Limitations, Restrictions, and Exceptions

Maximum Gal/A: 1000

- DO NOT apply more than 1.5 gals of Empress product/acre/year, or 4.4 fl ozs per 1000 sq ft/year. DO NOT exceed the spray volume maximum per acre and the maximum rate mixed per 100 gal when making applications.

Resistance management dictates a maximum of two sequential applications then rotate to a non-group 11 fungicide with a different MOA.

Method

[Drench](#)

Rates

[field_rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[N.A.](#)