



Perennials and Overwintering

RootShield® PLUS⁺

Background

Overwintering perennials are vulnerable to many root diseases such as *Fusarium*, *Rhizoctonia*, *Pythium*, and *Phytophthora*. Often, overwintered plants are covered for weeks or months during this period, making routine monthly fungicide applications difficult, if not impossible. The resulting defenseless root system can be weak going into the spring. With RootShield® PLUS⁺ to guard these roots during this critical time, a natural defense system is in place for the roots and plants to get through this harsh growing period.

What is RootShield® PLUS⁺

RootShield PLUS Granules and RootShield PLUS WP preventative biological root fungicides contain the active ingredients *Trichoderma harzianum* Rifai strain T-22 and *Trichoderma virens* strain G-41, and are proven to control most fungal root diseases, e.g. *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium*, *Cylindrocladium*, and *Thielaviopsis*. RootShield PLUS⁺ Granules can be incorporated into the potting soil; RootShield PLUS⁺ WP can be mixed with water and drenched on to the plant's roots. Using RootShield PLUS will save you time and money on chemical fungicide applications.

Chemical Compatibility

RootShield PLUS⁺ is compatible with many chemical fungicides, insecticides, and plant growth regulators. RootShield PLUS⁺ Granules can be used as a stand-alone fungicide for root disease control or they may also be part of an existing disease management program.

Fertilizer Compatibility

RootShield PLUS⁺ is compatible with all forms of fertilizers; RootShield PLUS⁺ WP can be tank-mixed with concentrated water-soluble fertilizers for use through injectors. NOTE: constant agitation of RootShield PLUS⁺ WP is required; if mixing and applying with concentrated water-soluble fertilizers, drench RootShield PLUS⁺ WP within one hour of suspension.

Soil pH

Typically, perennial plant root growth is optimal when soil pH is maintained at 5.8 to 6.2. RootShield PLUS⁺ grows between pH 4 to 8.5; thus, product efficacy is not influenced by soil pH within the normal perennial plant soil pH range.

Watering and Leaching

Heavy watering increases the risk of root disease problems and should be avoided. However, heavy watering will not leach RootShield PLUS⁺ away from the crop root zone. RootShield PLUS⁺ will continue to grow on the roots as the expand through the growing media.



Why you should use RootShield *PLUS*⁺ even if you don't have disease symptoms

- “*Prevention is the best medicine*” – Your crop is always at risk unless it is protected
- Healthy plants begin with healthy roots.

RootShield *PLUS*⁺ Winter Maintenance for Perennials

Prior to winter covering (at least 2-4 weeks prior to covering):

- Thoroughly drench plant's roots using a solution containing RootShield *PLUS*⁺ WP at a rate of 6 oz per 100 gallons OR
- Pot your perennials into a mix containing RootShield *PLUS*⁺ Granules incorporated at a rate of 1.5-2.0 lbs per cubic yard.
- Every 3-months drench the plant's roots using RootShield *PLUS*⁺ WP at a rate of 6 oz. per 100 gallons.

Refer to product labels for complete application details. Additional technical information is available on our website (bioworksinc.com) or from your BioWorks technical sales representative. RootShield® *PLUS*⁺ is a registered trademark of BioWorks, Inc. Always read and follow label directions.