



BioWorks[®]
A MEMBER OF BIOBEST GROUP



ABOVE AND BEYOND IS WHERE WE BEGIN



BULB PROTECTION: ROOTSHIELD[®] PLUS⁺

When planning your next bulb crop, give your plants a healthy start and prevent soil-borne diseases with RootShield PLUS⁺ WP or RootShield PLUS⁺ Granules.

WHAT IS ROOTSHIELD PLUS⁺?

- + An organic biological fungicide with dual active ingredients, *Trichoderma harzianum* T-22 strain and *Trichoderma virens* G-41 strain, that prevent a broad spectrum of root diseases and promote healthy root systems
- + Prevents attack from diseases by growing on the roots and forming a protective “shield” against disease and environmental stress
- + Proven efficacy that equals chemical fungicides and is non-toxic to workers
- + RootShield PLUS⁺ Granules can be mixed into your growing media (most media companies will incorporate)
- + RootShield PLUS⁺ WP is a wettable powder that can be dusted, used in dips or drenched onto potted bulbs
- + EPA registered, with a 4-hour REI (restricted-entry interval)
- + Exception: 0-hour REI if product is soil injected or soil incorporated; workers may enter the area without PPE if they will not contact anything that has been treated

PROTECTION FROM ROOT ROTS

- + Protects bulb crops like Lilies, Tulips, Gladiolus and Narcissus
- + Attacks pathogens like Pythium, Fusarium, Rhizoctonia and Phytophthora
- + Stops pathogens from damaging roots

CHEMICAL COMPATIBILITY

- + Compatible with many chemical fungicides. Visit the BioWorks Product Compatibility tool [here](#).
- + Used as a stand-alone fungicide for root disease control
- + RootShield PLUS⁺ is a preventative fungicide; to “cure” existing problems, use appropriate chemical treatment, then follow-up with RootShield PLUS⁺ WP

SOIL TEMPERATURES

- + Storage conditions for the cooling period (vernalization) will not harm the active fungal ingredients, *Trichoderma harzianum* strain T-22 and *Trichoderma virens* strain G-41, found in RootShield PLUS⁺

WATERING AND LEACHING

- + Heavy watering increases the risk of root disease problems, and should be avoided
- + Watering will not leach RootShield PLUS⁺ away from the crop’s root zone; it will continue to grow on the roots as it expands through the growing media for up to 3 months



BULB PROTECTION: ROOTSHIELD® PLUS+

CROP PRODUCTION PHASE	PRODUCT AND APPLICATION	RATES
Bulb Planting, Growth, and Cold Storage	<p>Pre-blend RootShield PLUS⁺ Granules into your soil mix at the time of planting or drench with RootShield PLUS⁺ WP immediately after planting.</p> <p>Bulbs may be dusted with RootShield PLUS⁺ WP immediately before planting or may be dipped into a drench slurry (dip).</p> <p>Treated bulbs can be pot or case cooled.</p> <p>Applying RootShield PLUS⁺ at this time is critical for basal root protection, especially if the bulbs are placed at temperatures above 50 °F for 2- 3 weeks. If bulbs are immediately placed in the cooler, the most effective treatment would be with RootShield PLUS⁺ granules incorporated into the media or the use of the dry bulb dust.</p>	<p>Granules: 1.5-3 lb/cu. yd.</p> <p>Drench (WP): 6-8 oz/100 gal</p> <p>Bulb dusting: 1.0-3.0 lbs/100 lbs.</p> <p>Bulb Dip (Drench): 0.5 lb/20 gal</p>
Post-Cold Storage and Crop Growth	<p>Apply RootShield PLUS⁺ WP immediately after removing the crop from cold storage, or replant into media containing RootShield PLUS⁺ Granules.</p>	<p>Drench (WP): 6-8 oz/100 gal</p> <p>Granules: 1.5-3 lb/cu. yd.</p>
Additional Root Protection	<p>A second application of RootShield PLUS⁺ should be made using the WP formulation:</p> <ul style="list-style-type: none"> • If treated before cold storage, treat within 3 weeks after placement in the greenhouse • If treated after cold storage, retreat in 10-11 weeks depending upon the crop 	<p>Drench (WP): 6-8 oz/100 gal</p>

Protection of the stem root system is essential for optimal plant growth and development. Long term protection of the stem root system against disease and environmental stress is optimized with a second application of RootShield PLUS⁺. The root disease protection will carry over to the customer buying your product.

Refer to product labels for complete application details. Additional technical information is available at bioworksinc.com or from your BioWorks technical sales representative. RootShield and RootShield PLUS⁺ are trademarks of BioWorks, Inc. Always read and follow label directions.

GOING ABOVE AND BEYOND

At BioWorks, we not only help eradicate harmful diseases and pests that threaten your crops, but we design and support integrated plant health management programs. And because we know how quickly some diseases can work, we respond to any questions you might have in just 48 hours. So you can get back to the business of successful growing.



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