



# RootShield®

Biological Fungicide

## Healthy Roots, Healthy Plants

RootShield provides long-term root protection for all types of greenhouse plantings including vegetables, ornamentals and bedding plants.

- Grows on the roots “shielding” them against root damaging fungi such as Fusarium, Pythium and Rhizoctonia
- Promotes a healthier root system
- Reduces or eliminates chemical root fungicide applications
- RootShield grows between pH 4-8 at soil temperatures between 9 and 34° C
- Reduces effects of environmental stresses that challenge the root system

Before planting your next greenhouse crop choose RootShield Granules or RootShield Drench as a key strategy in your disease prevention program. The active ingredient is the patented beneficial fungus, *Trichoderma harzianum*, strain T-22 that protects roots from many pathogens.



**BioWorks®**

How You Grow Matters **Responsible**  
**Economical**  
**Proven**

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# RootShield® Granules / RootShield® Drench

## Application

Apply RootShield Granules or RootShield Drench before roots have emerged or fully developed. Within 24 hours, RootShield forms a “shield” by growing around the roots. Forming this “shield” early is key to preventing pathogens from damaging the roots.

RootShield grows on the plant’s root system and is compatible with all bark, coir, peat based and soil-less mixes and will protect plugs, cuttings, liners, and all container plants.

### RootShield Granules

The granules can be incorporated into the potting soil for root disease protection.

### Packaging

RootShield Granules are available in 5 kg boxes, 18 kg bags and 450 kg bulk bags.

### Root Application

The general application rate is 750 grams/m<sup>3</sup> of growing media. For specific information concerning rates in various planting containers check with your Koppert Biological Systems Specialist or contact Koppert Canada Limited.

### Custom Blend Rates

For small volumes blend 3 tbsps. per cubic foot of potting soil. If you prefer large volume custom blending with your media, contact your mix company. Large volume rates are 750 grams/m<sup>3</sup> of mix approximate 3 – 18 kg bags per truckload (75 m<sup>3</sup>) of mix.

### RootShield Drench

The wettable powder can be mixed with water and drenched into the soil for root disease protection.

### Packaging

RootShield Drench is packaged in 0.5 kg, 2 kg and 13 kg boxes.

### Root Application

For best results when applying RootShield Drench, keep the stock tank or drench tank agitated and remove any screens smaller than 100 mesh. RootShield Drench can be applied through low pressure nozzles or other watering systems.

## Maintenance Programs

### Seeding/Flats/Liners

Plant seeds into propagation mix containing RootShield Granules. Or, drench flats with RootShield Drench.

### Cuttings/Plugs, e.g. Poinsettia, Mums, Pansies

Place unrooted or rooted cuttings and plugs directly into propagation media containing RootShield Granules or apply RootShield Drench within approximately 7 days after sticking.

### Bulbs

Pre-blend or topdress RootShield Granules or apply RootShield Drench immediately after planting. Bulbs may also be dusted with RootShield Drench immediately before planting or may be dipped in a Drench slurry. Treated bulbs can be case or pot cooled. Or, apply RootShield Drench immediately after removing from cold storage, or replant

into media containing RootShield Granules. Pre-cool bulb application protects the basal roots while post-cool application protects the stem roots. Specific rate information is available from your Koppert Biological Systems Specialist.

### Extended Root Protection

To ensure good root protection over extended periods, or at transplanting, re-apply either RootShield Granules or RootShield Drench every 10-12 weeks after initial application. Second applications can be applied at half the initial rate.

### Shelf Life

RootShield Granules and RootShield Drench have a shelf life of 6 months when stored at 10° C (50° F). For added shelf life store product in a freezer.

### Compatibility

RootShield is compatible with fertilizers, algacides, insecticides, disinfectants, miticides, growth regulators and nearly all fungicides. For specific information on compatibility with registered fungicides contact your Koppert Biological Systems Specialist.

### Helpful Hint

RootShield is a preventative biofungicide and should be applied to clean plants. Diseased plants should first be treated to cure any existing root diseases since RootShield only grows on the outside of the root and does not enter plant tissue.

*Always Read The Label Before Using.*

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