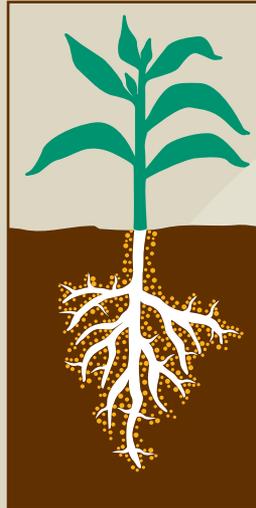


RootShield[®] PLUS⁺ WP

Biological Fungicide



Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD **2015-2017** LIC. NO.

9055.16



Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD **2012-2014** LIC. NO.

ACTIVE INGREDIENTS:

Trichoderma harzianum Rifai strain T-22* 1.15%
Trichoderma virens strain G-41** 0.61%

OTHER INGREDIENTS: 98.24%

TOTAL: 100.00%

*Contains at least 1.0×10^7 colony forming units per gram dry weight.

**Contains at least 5.3×10^6 colony forming units per gram dry weight.

US Patent Pending

EPA Reg. No. 68539-9

EPA Est. No. 68539-NY-001

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See attached label booklet for **FIRST AID**, Precautionary Statements,
Storage and Disposal Instructions and Directions for Use

LOT No: _____

EXPIRES: _____

Net Weight: 3 lb (1.36 kg)



BioWorks[®]

How You Grow Matters[™]

100 Rawson Rd., Suite 205, Victor, NY 14564

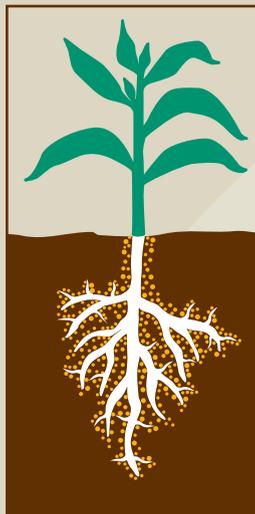
www.bioworksinc.com



S-0424 030112

RootShield[®] PLUS⁺ WP

Biological Fungicide



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S-0424 030112

RootShield Plus WP 3 LB
Size: 7.625W x 8.75H

**FIRST AID**

If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
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HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear protective eyewear, long-sleeved shirt and long pants, and shoes plus socks. Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Users should remove clothing / PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store in original container under refrigerated conditions. Short periods at room temperatures below 75°F will not affect performance. Keep container tightly closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke. If outer box is contaminated, dispose of it in the same manner as required for the bag.



BioWorks, Inc. 100 Rawson Rd., Suite 205, Victor, NY 14564 (800) 877-9443



IN-FURROW SPRAY OR TRANSPLANT STARTER SOLUTION

Apply RootShield® Plus WP Biological Fungicide as an in-furrow spray or transplant starter solution at a rate of 16.0 – 32.0 ounces/acre in sufficient water to achieve uniform application. Maintain constant agitation. RootShield® Plus WP Biological Fungicide can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on the crops listed on this label. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult your BioWorks representative for more information.

TANK MIXING

RootShield® Plus WP Biological Fungicide can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult your BioWorks representative for more information. **This product must not be tank mixed with chemicals that contain the following active ingredients: imazilil, propiconazole, tebuconazole, and triflumizole.** Do not apply RootShield® Plus WP Biological Fungicide immediately before these pesticides are used.

Do not combine RootShield® Plus WP Biological Fungicide in the spray tank with pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective and non-injurious under your use conditions.

RootShield® Plus WP Biological Fungicide is compatible with many commonly used pesticides, fertilizers, adjuvants and surfactants but has not been fully evaluated with all of these. To ensure compatibility of tank-mix combinations, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of products to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application. Do not exceed label dosage rates.

This product cannot be mixed with any product containing a label prohibition against such mixing.

GREENHOUSE AND FIELD CHEMIGATION

Suspend 3.0 – 8.0 ounces RootShield® Plus WP Biological Fungicide in 100 gallons of water with agitation, and apply only through the following systems: 1) pressurized drench (flood) or drip (trickle), 2) furrow, 3) micro-irrigation such as spaghetti-tube or individual tube irrigation, 4) hand-held calibrated irrigation equipment such as the hand-held wand with injector, and 5) ebb and flow. Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Requirements for Chemigation Systems Connected to Public Water Systems:

- 1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.
- 8) Apply RootShield® Plus WP Biological Fungicide during the last half of the water application period. Mix RootShield® Plus WP Biological Fungicide in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 9) Apply enough water to move RootShield® Plus WP Biological Fungicide into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

Drip (Trickle) Chemigation and Micro-irrigation Requirements:

- 1) The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- 2) The pesticide injection pipeline must contain a functional, automatic,

quick-closing check valve to prevent the flow of fluid back toward the injection pump.

- 3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Apply RootShield® Plus WP Biological Fungicide during the last half of the water application period. Mix RootShield® Plus WP Biological Fungicide in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 8) Apply enough water to move RootShield® Plus WP Biological Fungicide into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

Flood and Furrow Chemigation Requirements:

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from back flow if water flow stops.
- 2) Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- a. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
- b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- e. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- f. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

- 3) Apply RootShield® Plus WP Biological Fungicide during the last half of the water application period. Mix RootShield® Plus WP Biological Fungicide in enough water to be able to draw through the system for the last half of the water application. Maintain constant agitation.
- 4) Apply enough water to move RootShield® Plus WP Biological Fungicide into the root zone. Amounts will vary depending on soil type and existing moisture level. Do not apply water volumes that would cause runoff or excessive leaching.

PLANT SAFETY

RootShield® Plus WP Biological Fungicide has been tested on numerous plant varieties with no phytotoxic effects. However, since RootShield® Plus WP Biological Fungicide has not been tested on all plant varieties or in combination with all available tank mixes, the manufacturer recommends testing RootShield® Plus WP Biological Fungicide on a small number of plants to check for adverse plant effects before applying to a larger number of plants.

NOTICE TO BUYER AND SELLER: Seller warrants that this product conforms to the description on this label and is reasonably fit for the purposes stated on this label when used and stored in accordance with the directions for use. This warranty does not extend to use of this product contrary to label directions or under conditions not reasonably foreseeable by the Seller, and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Seller disclaims all other warranties, express or implied, including any warranty of fitness or merchantability. To the extent consistent with applicable law, Seller shall not be liable for consequential, special or indirect damages resulting from use or handling of this product, and Seller's sole liability and Buyer's and User's exclusive remedy shall be limited to refund of the purchase price. This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified.

In Case of Emergency, Call CHEMTREC: (800) 424-9300

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store in original container under refrigerated conditions. Short periods at room temperatures below 75°F will not affect performance. Keep container tightly closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke. If outer box is contaminated, dispose of it in the same manner as required for the bag.



Manufactured in the United States of America by:



How You Grow Matters™

BioWorks, Inc.
100 Rawson Rd., Suite 205
Victor, NY 14564
(800) 877-9443
Country: United States of America
US Patent Pending

ACTIVE INGREDIENTS:

Trichoderma harzianum Rifai strain T-22*.....1.15%

Trichoderma virens strain G-41**0.61%

OTHER INGREDIENTS:98.24%

TOTAL:100.00%

* Contains at least 1.0 X 10⁷ colony forming units per gram dry weight.

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US Patent Pending
EPA Reg. No. 68539-9 EPA Est. No. 68539-NY-001

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

Manufactured by:



How You Grow Matters™

100 Rawson Rd, Suite 205, Victor, New York 14564

Product of USA
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RootShield® Plus WP is a registered trademark of BioWorks, Inc.

OPEN HERE FOR COMPLETE INSTRUCTIONS

FIRST AID

If in eyes

- Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear protective eyewear, long-sleeved shirt and long pants, and shoes plus socks. Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Users should remove clothing / PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirement specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted - entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water) is protective eyewear, waterproof gloves, coveralls, shoes, and socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried or dusts have settled.

PRODUCT INFORMATION

RootShield® Plus WP Biological Fungicide is a preventative biological fungicide for control of plant diseases. The active ingredients are microbes, *Trichoderma*

harzianum Rifai strain T-22 and *Trichoderma virens* strain G-41, which when applied to seeds, to transplants or other propagative material, or to soil or planting mixes, grow onto plant roots as they develop and provide protection against plant root pathogens such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium*, *Cylindrocladium* and *Thielaviopsis*. RootShield® Plus WP Biological Fungicide can be used alone or in conjunction with certain chemical fungicides; consult your BioWorks Representative for more information. **This product must not be tank mixed with chemicals that contain the following active ingredients: imazilil, propiconazole, tebuconazole, and triflumizole.** Do not apply RootShield® Plus WP Biological Fungicide immediately before these pesticides are used. See specific instructions for tank mixing. Where early season seed rot and seedling diseases are expected, use chemically treated seed or other appropriate measures for stand establishment and RootShield® Plus WP Biological Fungicide for root disease control.

Note: RootShield® Plus WP Biological Fungicide contains live spores of microbes that must be used prior to disease onset. RootShield® Plus WP Biological Fungicide becomes active in soil or on plants when temperatures are above 50° F and is not effective while temperatures remain cold. RootShield® Plus WP Biological Fungicide can be applied to sterilized or fumigated soil but must be applied after sterilization or fumigation.

This biological fungicide is for use in soil applications (drench, in soil furrow, and potting soil) on food crops, ornamentals, landscape plants, and ornamental trees, including tree seedlings for transplanting into the forest.

ATTENTION: DO NOT APPLY to sugarcane, pechay, rice, mushrooms, kiwi, tobacco, barley, oats, lemon, apple, and chickpea. Not for use on aquatic crops.

For food commodities: In the table immediately following this paragraph, greenhouse chemigation and field chemigation of food commodities are annotated with an asterisk (*) to indicate that these methods are limited to flood, drip, furrow, micro-irrigation, and ebb and flow systems with NO OVERHEAD SPRAY. Do not apply product when above-ground harvestable food commodities are present. Refer to Chemigation section for additional specific directions.

RootShield® Plus WP Biological Fungicide has a 0-Day PreHarvest Interval (PHI) for all crops contained on this label.

APPLY VIA GROUND APPLICATION ONLY. CROPS ON WHICH ROOTSHIELD PLUS WP BIOLOGICAL FUNGICIDE MAY BE USED:

CROPS	USE	APPLICATION RATE OF ROOTSHIELD PLUS WP BIOLOGICAL FUNGICIDE
Berries and Small Fruits: Blackberries, Blueberries, Currants, Elderberries, Gooseberries, Huckleberries, Loganberries, Raspberries, Strawberries, Grapes	Cuttings or bare-rooted transplant dip Greenhouse soil drench Nursery Soil Drench In-furrow spray or transplant starter solution	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre
Bulb Vegetables: Garlic, Leeks, Onions, Shallots, Ornamental Bulbs	Dust (pre-plant) Bulb dip	0.03 – 3.0 lbs / cwt. bulbs 0.03 – 3.0 lbs / cwt. bulbs
Cereal Grains: Buckwheat, Corn (grain, seed, sweet corn, silage, popcorn, high oil), Rye, Wheat, Sorghum, Millet	*Field chemigation	3.0 – 8.0 oz / 100 gal water
Citrus Fruits: Citrus Hybrids, Grapefruit, Kumquat, Limes, Oranges, Pummelos	Cutting or bare-rooted transplant dip Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Conifer Tree Seedlings, Conifer Trees:	Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution Greenhouse chemigation Field chemigation	3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Cucurbit Vegetables: Cucumbers, Melons (i.e. Chinese waxgourd,	Greenhouse soil drench In-furrow spray or transplant starter solution	3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre

CROPS	USE	APPLICATION RATE OF ROOTSHIELD PLUS WP BIOLOGICAL FUNGICIDE
Citron melon, Muskmelons, or Watermelon), Gourds, Pumpkins, Squash	*Greenhouse chemigation *Field chemigation	3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Flowers, Bedding Plants, and Ornamentals	Cutting or bare-rooted transplant dip Greenhouse soil drench Nursery soil drench Greenhouse chemigation Field chemigation	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Fruiting Vegetables: Eggplant, Sweet and Hot Peppers, Tomatillos, Tomatoes	In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Herbs, Spices, and Mints	Greenhouse soil drench In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Hydroponic Crops: Cucumbers, Tomatoes, Lettuce, Herbs and Spices	Greenhouse soil drench *Greenhouse chemigation	3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Leafy and Brassica (Cole) Leafy Vegetables: Arugula, Celery, Chervil, Endive, Fennel, Lettuce (head and leaf), Parsley, Radicchio, Rhubarb, Spinach, Swiss Chard, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, Kohlrabi, Mustard Greens	Cutting or bare-rooted transplant dip Greenhouse soil drench In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Asparagus		

CROPS	USE	APPLICATION RATE OF ROOTSHIELD PLUS WP BIOLOGICAL FUNGICIDE
Legume Vegetables (Succulent or Dried): Beans (soybean, snap, dry), Lentils, Peas	*Field chemigation	3.0 – 8.0 oz / 100 gal water
Oilseed Crops: Cotton, Canola, Safflower, Sunflower	*Field chemigation	3.0 – 8.0 oz / 100 gal water
Peanuts	*Field chemigation	3.0 – 8.0 oz / 100 gal water
Pome Fruits: Pears, Quince	Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Root and Tuber Vegetables: Beets, Sugar Beets, Carrots, Celeric, Chicory, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Turnips	Tuber or cut potato seed piece dip Dust (pre-plant)	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 0.03 – 3.0 lb / cwt seed tubers or cut potato seed pieces
Potatoes, Sweet Potatoes, Yams, Jerusalem Artichoke, Cassava, Ginger	In-furrow spray or transplant starter solution *Field chemigation	16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water
Shade-tree and Outdoor Nursery Crops: Deciduous trees (Maple, Oak, etc.), Ornamentals, Grapes, Citrus, Pine	Cutting or bare-rooted transplant dip Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz / acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Stone Fruits: Apricots, Cherries, Nectarines, Peaches,	Cutting or bare-rooted transplant dip Greenhouse soil drench	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 3.0 – 8.0 oz / 100 gal water

CROPS	USE	APPLICATION RATE OF ROOTSHIELD PLUS WP BIOLOGICAL FUNGICIDE
Plums, Prunes	Nursery soil drench In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz/acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water
Tree Nuts: Almonds, Beech Nuts, Brazil Nuts, Butternuts, Cashews, Chestnuts, Filberts, Hickory Nuts, Macadamia Nuts, Pecans, Pistachios, Walnuts	Cutting or bare-rooted transplant dip Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution *Greenhouse chemigation *Field chemigation	0.25 – 5.0 lb / 20 gal water or dip directly into dry powder 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water 16.0 – 32.0 oz/acre 3.0 – 8.0 oz / 100 gal water 3.0 – 8.0 oz / 100 gal water

SEED TREATMENT FOR VEGETATIVELY PROPAGATED CROPS (INCLUDING POTATOES, OTHER ROOT AND TUBER VEGETABLES, AND BULB VEGETABLES)

For planting or storage, treat at 0.03 – 3.0 pounds RootShield® Plus WP Biological Fungicide to 100 pounds (1 cwt) of bulbs or cut potato seed pieces. Apply to cut potato seed pieces or bulbs so surfaces are thoroughly covered with dust. Alternatively, dip bulbs, tubers or cut potato seed pieces in a suspension consisting of 0.25 – 5.0 pounds of RootShield® Plus WP Biological Fungicide in 20 gallons of water.

For potatoes, apply RootShield® Plus WP Biological Fungicide with compatible chemical seed dusts. Consult your BioWorks Representative for more information. All surfaces, knives, and other equipment used to cut and plant potatoes should be thoroughly sterilized before cutting and planting and at regular intervals. The cut and treated seed pieces may be held for a week or more at cool temperatures, 45-50°F, and high relative humidity to promote suberization, or they may be planted immediately.

DIP FOR CUTTINGS AND BARE-ROOTED TRANSPLANTS

Dip cuttings and bare-rooted transplants in RootShield® Plus WP Biological Fungicide dry powder or in a suspension of 0.25 - 5.0 pounds RootShield® Plus WP Biological Fungicide in 20 gallons of water. Plant treated cuttings and bare-rooted transplants in potting mix or soil in the usual manner.

SOIL DRENCH

GREENHOUSE SOIL DRENCH: Suspend 3.0 - 8.0 ounces of RootShield® Plus WP Biological Fungicide in 100 gallons of water with agitation, and apply prepared suspension as a soil drench to greenhouse planting mixes. For seeding flats or shallow (up to 4-inch depth) beds or pots, apply prepared suspension at a rate of 50 - 100 gallons per 800 square feet. For deeper beds or pots, apply prepared suspension at a rate of 100 gallons per 400 square feet, 1/2 cup (4 fluid ounces) for pots with a 3-inch diameter, or 1 cup (8 fluid ounces) for pots with a 6-inch diameter.

Apply RootShield® Plus WP Biological Fungicide directly to the soil through low pressure watering nozzles such as fan nozzles or other drench watering systems. Constant agitation is required to maintain RootShield® Plus WP Biological Fungicide in suspension. RootShield® Plus WP Biological Fungicide can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on greenhouse/ornamental plants. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult your BioWorks representative for more information.

NURSERY SOIL DRENCH: Suspend 3.0 – 8.0 ounces of RootShield® Plus WP Biological Fungicide in 100 gallons of water with agitation, and apply prepared suspension as a soil drench to container nursery crops. For shallow (up to 4-inch depth) beds or pots, apply prepared suspension at a rate of 50 - 100 gallons per 800 square feet. For deeper beds or pots, apply prepared suspension at a rate of 100 gallons per 400 square feet, 1/2 cup (4 fluid ounces) for pots with a 3-inch diameter, or 1 cup (8 fluid ounces) for pots with a 6-inch diameter. Apply RootShield® Plus WP Biological Fungicide directly to the soil through low pressure watering nozzles such as fan nozzles, other drench watering systems, handheld sprayers or backpack sprayers.

Constant agitation is required to maintain RootShield® Plus WP Biological Fungicide in suspension. RootShield® Plus WP Biological Fungicide can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use on nursery plants. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult your BioWorks representative for more information.