



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

July 26, 2023

Melissa Tacolla  
Regulatory Affairs Officer  
Koppert Biological Systems, Inc.  
1502 Old US 23  
Howell, MI 48843

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – To Revise the Statements Restricting Use in California on the Label and Make Other Minor Changes Requested by EPA  
Product Name: Trianum WG Biological Fungicide  
EPA Registration Number: 89635-3  
EPA Receipt Date: 05/03/2023  
Action Case Number: 00452006

Dear Ms. Tacolla:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

Page 2 of 2  
EPA Reg. No. 89635-3  
Action Case No. 00452006

If you have any questions, please contact Hannah Dean via email at [dean.hannah@epa.gov](mailto:dean.hannah@epa.gov).

Sincerely,

**CODY**

**KENDRICK**

Digitally signed by  
CODY KENDRICK

Date: 2023.07.26  
10:16:54 -07'00'

Cody Kendrick, Senior Regulatory Advisor  
Microbial Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511M)  
Office of Pesticide Programs

Enclosure

{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

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**Trianum WG Biological Fungicide (EPA Reg. No. 89635-3)**

**MASTER LABEL**

**Sublabel A is for Agricultural Use**

**Sublabel B is for Residential/Homeowner Use**

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**Trianum<sup>®</sup><sup>TM</sup> WG**  
***Biological Fungicide***

*(Alternate Brand Names: Trianum P Biological Fungicide; Trianum P; T-22 WG Water Dispersible Granules - Biological Fungicide)*

**ACTIVE INGREDIENT:**

*Trichoderma harzianum* Rifai strain T-22\* .. .....3.65%

OTHER INGREDIENTS .....96.35%

TOTAL .....100.00%

\*Contains at least  $1.0 \times 10^7$  colony forming units per gram of product.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

EPA Reg. No. 89635-3

EPA Est. No. XXXXXX-XXX-XXX

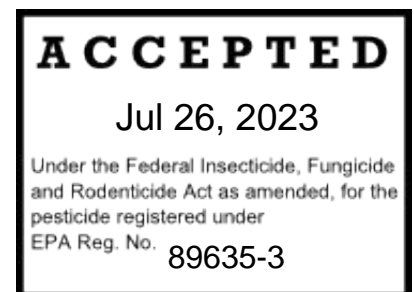
Net Weight:

Expiration Date: {Date six month after manufacture to be stamped or inserted}

Batch Code:

{Note to reviewer: Expiration date and batch code may appear on the labeling or be printed directly on packaging}

Manufactured by:  
Koppert Biological Systems, Inc.  
1502 Old US 23  
Howell, Michigan 48843



{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

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**Trianum WG Biological Fungicide (EPA Reg. No. 89635-3)**  
**MASTER LABEL**  
**Sublabel A is for Agricultural Use**

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**Trianum<sup>®</sup><sup>[TM]</sup> WG**  
***Biological Fungicide***

*(Alternate Brand Names: Trianum P Biological Fungicide; Trianum P; T-22 WG Wettable Granules - Biological Fungicide)*

**ACTIVE INGREDIENT:**

*Trichoderma harzianum* Rifai strain T-22\* .. 3.65%  
**OTHER INGREDIENTS** ..... 96.35%  
**TOTAL** ..... 100.00%

\*Contains at least  $1.0 \times 10^7$  colony forming units per gram of product.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

EPA Reg. No. 89635-3

EPA Est. No. XXXXX-XXX-XXX

Net Weight:

Expiration Date: {Date six month after manufacture to be stamped or inserted}

Batch Code:

{Note to reviewer: Expiration date and batch code may appear on the labeling or be printed directly on packaging}

Manufactured by:  
Koppert Biological Systems, Inc.  
1502 Old US 23  
Howell, Michigan 48843

**Koppert Product Number 12903, 11414**

{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

## **PRECAUTIONARY STATEMENTS**

### **PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

Mixers/loaders and applicators must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions are available 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. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

### **ENVIRONMENTAL HAZARDS**

For terrestrial uses: Do not apply directly to water, 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 washwater 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.

{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

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, coveralls, waterproof gloves, 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 or farms, forests, nurseries or greenhouses.

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

### PRODUCT INFORMATION

Triatum®<sup>TM</sup> WG Biological Fungicide is a preventative control of plant diseases. The active ingredient is a microbe, *Trichoderma harzianum* Rifai strain T-22, which when applied to seeds, transplants or other propagative material, or to soil or planting mixes, grows onto plant roots as they develop and provides protection against plant root pathogens including *Pythium*, *Rhizoctonia*, *Fusarium*, *Cylindrocladium* and *Thielaviopsis*.

[Triatum®<sup>TM</sup> WG Biological Fungicide is a biological nematicide for control of plant-pest nematodes, including Soybean Cyst Nematode, *Heterodera glycines*.\*

**\*Not for use in California]**

Triatum®<sup>TM</sup> WG Biological Fungicide can be used alone or in conjunction with certain chemical fungicides; consult Triatum®<sup>TM</sup> WG Biological Fungicide compatibility chart, tank mix compatibility charts below or the company for more information. This product should not be tank mixed with chemicals that contain the following active ingredients: benzoyl, imazalil, propiconazole, tebuconazole, and triflumizole. Do not apply Triatum®<sup>TM</sup> WG 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 Triatum®<sup>TM</sup> WG Biological Fungicide for root disease control.

Note: Triatum®<sup>TM</sup> WG Biological Fungicide contains live spores of a microbe that must be used prior to disease onset. Triatum®<sup>TM</sup> WG Biological Fungicide becomes active in soil or on plants when temperatures are above 50°F and is not effective while temperatures remain cold. Triatum®<sup>TM</sup> WG can be applied to sterilized or fumigated soil but must be applied after sterilization or fumigation.

This biological fungicide [and nematicide\*] is for use in soil applications (drench, in soil furrow, potting soil and broadcast), and seed treatments in or on all raw agricultural commodities, food and fiber crops. Triatum®<sup>TM</sup> WG Biological Fungicide is for use in soil applications (drench, in soil furrow, and potting soil), and seed treatments on ornamentals, landscape plants, turf, and ornamental trees, including tree seedlings for transplanting into the forest. [**\*Not for use in California]**

If Triatum®<sup>TM</sup> WG Biological Fungicide is mixed with water to make a slurry, dip or suspension, use immediately. If not, keep refrigerated after mixing with water. Refer to the following sections for further mixing instructions:

- Seed Treatment for True Seed Crops
- Seed Treatment for Vegetatively Propagated Crops, Including Potatoes, other Root, Tuber and Bulb Vegetables
- Dips for Cuttings and Bare Rooted Transplants

{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

{Additional California use restrictions (“\*Not for use in California” and appropriate asterisk “\*”) may be added to the above Product Information as required by the California Department of Pesticide Regulation.}

**NOTE: DO NOT APPLY to Sugarcane, Pechay, Rice, Mushrooms, Kiwi, Tobacco, Barley, Oats, Wheat, Lemon, Apple, and Chickpea. Not for use on aquatic crops.**

For food commodities: Use in chemigation and irrigation systems is limited to greenhouse flood, drip, furrow, micro-irrigation, and ebb and flow applications with NO OVERHEAD SPRAY. See footnotes for specific directions concerning each use pattern.

**APPLY VIA GROUND APPLICATION ONLY**

CROPS	USE	RATE
<b>Agronomic Row or Other Field Crops:</b> Buckwheat, Beans (soybean, snap, dry), Corn (grain, seed, sweet corn, silage, popcorn, high oil), Cotton, Canola, Peas (dry, succulent), Safflower, Sunflower.	Planter Box (on-site) Commercial seed treatment <sup>1</sup> In-furrow spray or transplant starter solution	1.0 - 10.0 oz / cwt. seed 0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / acre
<b>Alfalfa Hay and Forage Crops:</b> Alfalfa, Clover, Vetch, Trefoil	Planter Box (on-site) Commercial seed treatment <sup>1</sup> In-furrow spray or transplant starter solution	1.0- 10.0 oz / cwt. seed 0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / acre
<b>Berries and Small Fruits:</b> Blackberries, Blueberries, Currants, Elderberries, Gooseberries, Huckleberries, Loganberries, Raspberries, Strawberries, Grapes	Cuttings/bare root  Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution Greenhouse chemigation <sup>2</sup>	0.25- 5.0 lbs / 5 gal or dip into dry powder 1.0 - 32.0 oz /100 gal 1.0 - 32.0 oz /100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal
<b>Bulb Crops:</b> Garlic, Leeks, Onions, Shallots, Ornamental Bulbs	Dust (pre-plant)	0.03 - 3.0 lbs / cwt. seed
<b>Citrus Fruits:</b> Citrus Hybrids, Grapefruit, Kumquat, Limes, Oranges, Pummelos	Cuttings or bare-roots  Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution Greenhouse chemigation <sup>2</sup>	0.25 - 5.0 lbs / 5 gal or dip into dry powder 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal

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<p><b>Cucurbit Vegetables:</b> Cucumbers, Melons, Gourds Pumpkins, Squash</p>	<p>Planter Box (on-site) Commercial seed treatment<sup>1</sup> Greenhouse soil drench In-furrow spray or transplant starter solution Greenhouse chemigation<sup>2</sup></p>	<p>1.0 -10.0 oz / cwt. seed 0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal</p>
<p><b>Flowers, Bedding Plants, and Ornamentals</b></p>	<p>Cuttings or bare-roots  Commercial seed treatment<sup>1</sup> Greenhouse soil drench Nursery soil drench Greenhouse chemigation<sup>2</sup></p>	<p>0.25 - 5.0 lbs / 5 gal or dip into dry powder 0.088 - 17.62 lbs / cwt. seed 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal</p>
<p><b>Fruiting Vegetables:</b> Eggplant, Sweet and Hot Peppers, Tomatillos, Tomatoes</p>	<p>Commercial seed treatment<sup>1</sup> Greenhouse soil drench In-furrow spray or transplant starter solution Greenhouse chemigation<sup>2</sup></p>	<p>0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal</p>
<p><b>Herbs, Spices, and Mints</b></p>	<p>Commercial seed treatment<sup>1</sup> Greenhouse soil drench In-furrow spray or transplant starter solution Greenhouse chemigation<sup>2</sup></p>	<p>0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal</p>
<p><b>Hydroponic Crops:</b> Cucumbers, Tomatoes, Lettuce, Herbs and Spices</p>	<p>Greenhouse soil drench Greenhouse chemigation<sup>2</sup></p>	<p>1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal</p>
<p><b>Leafy Vegetables and Cole Crops:</b> 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, Asparagus</p>	<p>Cuttings or bare-roots  Commercial seed treatment<sup>1</sup> In-furrow spray or transplant starter solution Greenhouse soil drench Greenhouse Chemigation<sup>2</sup></p>	<p>0.25 - 5.0 lbs / 5 gal or dip into dry powder 0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal</p>
<p><b>Legume Vegetable and Fields Crops:</b> Snap and Dry Beans, Lentils, Succulent and Dry Peas, Peanuts, Soybeans</p>	<p>Planter Box (Onsite) Commercial seed treatment<sup>1</sup> In-furrow spray or transplant starter solution</p>	<p>1.0 - 10.0 oz / cwt. seed 0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / acre</p>



{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

<p><b>Pome Fruit:</b> Pears, Quince</p>	<p>Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution Greenhouse chemigation<sup>2</sup></p>	<p>1.0 - 32.0 oz / 100 gal 1-0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal</p>
<p><b>Root Crops:</b> Beets, Sugar Beets, Red Beets, Carrots, Celeriac, Chicory, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Turnips</p>	<p>Planter Box (Onsite) Commercial seed treatment<sup>1</sup> In-furrow spray or transplant starter solution</p>	<p>1.0 - 10.0 oz / cwt. seed 0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / acre</p>
<p><b>Shade House and Outdoor Nursery Crops:</b> Deciduous Trees (Maples, Oak, etc.), Ornamentals, Grapes, Citrus, Pine</p>	<p>Cuttings or bare-roots Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution Greenhouse chemigation<sup>2</sup></p>	<p>0.25 - 5.0 lbs / 5 gal or dip into dry powder 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal</p>
<p><b>Small Grains:</b> Rye, Sorghum, Millet</p>	<p>Planter Box (Onsite) Commercial seed treatment<sup>1</sup> In-furrow spray or transplant starter solution</p>	<p>1.0 - 10.0 oz / cwt. seed 0.00035 - 26.43 lbs / cwt. seed 1.0 - 32.0 oz / acre</p>
<p><b>Stone Fruit:</b> Apricots, Cherries, Nectarines, Peaches, Plums, Prunes</p>	<p>Cuttings or bare-roots Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution Greenhouse chemigation<sup>2</sup></p>	<p>0.25 - 5.0 lbs / 5 gal or dip into dry powder 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal</p>
<p><b>Tree Nuts:</b> Almonds, Beech Nuts, Brazil Nuts, Butternuts, Cashews, Chestnuts, Filberts, Hickory Nuts, Macadamia Nuts, Pecans, Pistachios, Walnuts</p>	<p>Greenhouse soil drench Nursery soil drench In-furrow spray or transplant starter solution Greenhouse chemigation<sup>2</sup></p>	<p>1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / 100 gal 1.0 - 32.0 oz / acre 1.0 - 32.0 oz / 100 gal</p>
<p><b>Tuber Crops:</b> Potatoes, Sweet Potatoes, Yams, Jerusalem Artichoke, Cassava, Ginger</p>	<p>Planter Box (Onsite) In-furrow spray or transplant starter solution</p>	<p>0.03 -3.0 oz / cwt. seed 1.0 - 32.0 oz / acre</p>

<sup>1</sup>Refer to Seed Treatment for True Seed Crops section for direction for onsite application to seed.

{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

<sup>2</sup> Application via greenhouse or field chemigation IS limited to flood, dip, furrow, micro-irrigation, and ebb and flow systems. Do not apply product when above-ground harvestable food commodities are present. Refer to Chemigation section for specific directions.

## SEED TREATMENT FOR TRUE SEED CROPS

**ONSITE APPLICATION TO SEED:** Trianum[®][™] WG Biological Fungicide is applied to seeds at the rate of 1.0 - 10.0 ounces per hundredweight (oz /cwt.). For example, for large, smooth seeds such as soybean or dry bean, apply 1.0 - 10.0 oz / cwt. of seed. For smaller or rougher seed such as peas, or corn, apply 1.0 – 8.0 oz /cwt. For sweet corn, apply 1.0 - 10.0 oz / cwt. of seed. Trianum[®][™] WG Biological Fungicide can be applied in sufficient water to coat seeds. For maximum seed protection, especially in cold soils, apply Trianum[®][™] WG Biological Fungicide to commercially treated seed such as seed treated with Captan, Apron and or Demosan for stand establishment.

Do not use treated seed for food or feed purposes or process for oil. Treat only those seeds needed for immediate use, minimizing the interval between treatments and planting. Do not store excess treated seeds beyond planting time.

**COMMERCIAL SEED TREATMENT:** Apply Trianum[®][™] WG Biological Fungicide as slurry, a coating, in a pellet, or during seed priming. See table below.

NOTE: This product does not contain a dye and is not covered by an appropriate tolerance exemption, or other clearance under the Federal Food, Drug and Cosmetic Act. To comply with 40 CFR §153.155, all seeds treated commercially with this product must be colored with an EPA-approved colorant of suitable color to prevent accidental use as food for man or feed for animals.

The Federal Seed Act requires that bags containing treated seed shall be labeled with the following information: "This seed has been treated with *Trichoderma harzianum* Rifai strain T-22. Do not use for food, feed or oil purposes."

## AGRICULTURAL CROPS

Seed Size (#seeds/oz)	Grams of Trianum WG per lb of seed	Ounces of Trianum WG per lb of seed
Large (1 - 100) e.g. peanuts, green & dry beans, field corn	0.0016 to 0.32 g	0.0016 to 0.32 oz
Medium (100 - 1,000) e.g. sweet corn, soybeans, sorghum	0.08 to 2.4 g	0.0028 to 0.0847 oz
Small (1,000 - 10,000) e.g. cabbage, cucumbers, sugar beets	0.4 to 16 g	0.141 to 0.564 oz
Fine (10,000 - 100,000) e.g. tomatoes	1.6 to 120 g	0.9564 to 4.23 oz

{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}

## ORNAMENTAL CROPS

Seed Size (#seeds/oz.)	Grams of Trianum WG per lb of seed	Ounces of Trianum WG per lb of seed
Small (1,000 - 10,000) e.g. Echinacea, Cosmos	0.4 to 16 g	0.0141 to 0.564 oz
Fine (10,000 - 100,000) e.g. Texas bluegrass, ryegrass	1.6 to 120 g	0.0564 to 4.23 oz
Very fine (100,000 - 500,000) e.g. bentgrass	8.0 to 120 g	0.282 to 2.82 oz

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

For planting or storage, treat at 0.03 - 3.0 ounces Trianum[®][™] WG Biological Fungicide to 100 lbs (1 cwt) of bulbs or cut potato seed pieces. Dip bulbs, tubers or cut potato seed pieces in a suspension of 1.0 - 3.0 lbs of Trianum[®][™] WP Biological Fungicide in 20 gallons of water.

For potatoes, consult your [Koppert Biological Systems] 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.

### DIPS FOR CUTTINGS AND BARE ROOTED TRANSPLANTS

Dip cuttings, bulbs or transplants in a suspension of 1.0 - 3.0 lbs of Trianum[®][™] WP Biological Fungicide in 20 gallons of water. Plant treated cuttings, bulbs or transplants in potting mix or soil in the usual manner.

## SOIL DRENCH

### GREENHOUSE SOIL DRENCH:

Suspend 1.0 - 32.0 ounces Trianum[®][™] WG Biological Fungicide in 100 gallons of water with agitation and apply as a soil drench to greenhouse planting mixes. For seeding flats or shallow (up to 4-inch depth) beds or pots, apply at a rate of 50 - 100 gallons per 800 square feet. For deeper beds or pots, apply at a rate of 100 gallons per 400 square feet, ½ cup (4 fl. ounces) for pots with a 3-inch diameter, or 1 cup (8 fl. ounces) per 6-inch diameter pot.

Apply Trianum[®][™] WG Biological Fungicide through low pressure watering nozzles such as fan nozzles or other drench watering systems applied directly to the soil. Constant agitation is required to maintain Trianum[®][™] WG Biological Fungicide in suspension. Trianum[®][™] WG 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 the tank mix compatibility chart below or the company for more information.

**NURSERY SOIL DRENCH:** Suspend 1.0 – 32.0 ounces Trianum[®][™] WG Biological Fungicide in 100 gallons of water with agitation and apply as a soil drench to container nursery crops. For shallow (up to 4-inch depth) beds or pots, apply at a rate of 50 - 100 gallons per 800 square feet. For deeper beds or pots, apply at a rate of 100 gallons per 400 square feet, ½ cup (4 fl. ounces) for pots with a 3-inch diameter, or 1 cup (8 fl. ounces) per 6-inch diameter pot.

Apply Trianum[®][™] WG Biological Fungicide directly to the soil through low pressure watering nozzles such as fan nozzles, or other drench watering systems, handheld sprayers or backpack sprayers. Constant agitation is required to maintain Trianum[®][™] WG Biological Fungicide in suspension. Trianum[®][™] WG 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 labeling limitations and precautions of all products used in mixtures. Consult the tank mix compatibility chart below or the company for more information.

**IN-FURROW SPRAY OR TRANSPLANT STARTER SOLUTION:** Apply as an in-furrow spray or transplant starter solution at a rate of 1.0 - 32.0 ounces/acre in sufficient water to achieve uniform application. Maintain constant agitation. Trianum[®][™] WG Biological Fungicide can be tank mixed with certain fertilizers and pesticides; consult tank mix compatibility chart below for detailed information.

**TANK MIXING:** Trianum[®][™] WG 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 the tank mix compatibility chart below or the company for more information. **This product should not be tank mixed with chemicals that contain the following active ingredients: imazilil, propiconazole, tebuconazole, and triflumizole.** Do not apply Trianum[®][™] WG Biological Fungicide immediately before these pesticides are used. Follow the most restrictive of the labeling limitations and precautions of all products used in mixtures.

This product can be mixed with the specific products, their percentages and rates for use in nursery drench, in-furrow spray or transplant starter solution, as listed in the table below in accordance with the most restrictive of label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

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## COMPATIBILITY FOR DRENCH, IN-FURROW SPRAY OR TRANSPLANT STARTER SOLUTION TANK MIX:

NOTE: While the information presented in this table is believed to be up to date, the user must always read the label of the other products used in the tank mix to confirm application rates and dilutions.

Chemical Name	% A.I. Formulation	Product Name	Rate Product	Dilution
Captan	85% Wettable Powder	Captan 85WP	1.88 lb / acre	0.1 oz / gal
Chlorothalonil	82.5% Water Dispersible Granules	Daconil Ultrex	3.7 oz / 1,000 ft <sup>2</sup>	0.56 oz / gal
Iprodione	23.3% Flowable	Chipco 26019 Flo	4 oz / 1,000 ft <sup>2</sup>	0.6 oz / gal
Thiophanate methyl	50% Wettable Powder	Cleary's 3336 in water soluble bags	8 oz / 1,000 ft <sup>2</sup>	1.2 oz / gal
Iprodione	Granules 50%, Soluble	Rovral	0.75 lb / acre	0.04 oz / gal
Metalaxyl	21.3% Liquid	Subdue Maxx	0.25 oz / 800 ft <sup>2</sup>	0.05 oz / gal
Chlorpyrifos	50% Emulsifiable Liquid	Lorsban 4E	3.2 oz / gal	3.2 oz / gal

### GREENHOUSE CHEMIGATION

Suspend 1.0 - 32.0 ounces Trianum[®][™] WG Biological Fungicide in 100 gallons of water with agitation and apply through the following systems: 1) pressurized drench (flood) or drip (trickle) systems, 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 systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

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

Do not connect an irrigation system, (including greenhouse system), used for pesticide application to a public water system unless the pesticide safety systems 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.

### GREENHOUSE CHEMIGATION

#### Specific Requirements for Chemigation Systems Connected to Public Water Systems:

- 1) Public water systems means a system for the provision to the public of piped water for human consumption if such a system has at least 15 service connections or regular 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, backflow preventer (RPZ) or the functional equivalent in the water supply line

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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 Trianium®<sup>TM</sup> WP Biological Fungicide during the last half of the water application period. Mix Trianium®<sup>TM</sup> WP Biological Fungicide in enough water to be able to draw through the system for the last half of the water application.
- 9) Apply enough water to move Trianium®<sup>TM</sup> WP Biological Fungicide into the root zone. Amounts will vary depending on soil type and existing moisture level. Avoid applying water volumes that would cause runoff or excessive leaching. Refer to the prior crop tables for specific rate and mixing instructions for application by greenhouse chemigation.

#### **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 backflow.
- 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 Trianium®<sup>TM</sup> WG Biological Fungicide during the last half of the water application period. Mix Trianium®<sup>TM</sup> WG Biological Fungicide in enough water to be able to draw through the system for the last half of the water application.
- 8) Apply enough water to move Trianium®<sup>TM</sup> WG Biological Fungicide into the root zone. Amounts will vary depending on soil type and existing moisture level. Avoid applying water volumes that would cause runoff or excessive leaching.

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**PLANT SAFETY:** Trianum[®][™] WG Biological Fungicide has been tested on numerous plant varieties with no phytotoxic effects. However, since Trianum[®][™] WG Biological Fungicide has not been tested on all plant varieties or in combination with all available tank mixes the manufacturer recommends testing Trianum[®][™] WG Biological Fungicide on a small number of plants to check for adverse plant effects before applying to a larger number of plants.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container under refrigerated conditions. Short periods at room temperatures above 75°F will not affect performance. Do not store near food or feed commodities. 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 into the application equipment by shaking and tapping sides and bottom to loosen clinging particles, 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.

**NOTICE TO BUYER AND SELLER:** Seller warrants that this product conforms to the description on the label and is reasonably fit for the purposes stated on the label when used and stored in accordance with directions under normal conditions of use. To the extent permitted by state law, 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 permitted by state law, Seller disclaims all other warranties express or implied, including any warranty of fitness or merchantability. To the extent permitted by state 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.

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**Trianum WG Biological Fungicide (EPA Reg. No. 89635-3)**

**MASTER LABEL**

**Sublabel B is for Residential/Homeowner Use**

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**Trianum<sup>®</sup><sup>[TM]</sup> WG**  
***Biological Fungicide***

(Alternate Brand Names: *Trianum P Biological Fungicide*; *Trianum P*; *T-22 WG Wettable Granules - Biological Fungicide*)

ACTIVE INGREDIENT:

*Trichoderma harzianum* Rifai strain T-22\* .. 3.65%

OTHER INGREDIENTS ..... 96.35%

TOTAL ..... 100.00%

\*Contains at least  $1.0 \times 10^7$  colony forming units per gram of product.

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

EPA Reg. No. 89635-3

EPA Est. No. XXXXX-XXX-XXX

Net Weight:

Expiration Date: {Date six month after manufacture to be stamped or inserted}

Batch Code:

{Note to reviewer: Expiration date and batch code may appear on the labeling or be printed directly on packaging}

Manufactured by:  
Koppert Biological Systems, Inc.  
1502 Old US 23  
Howell, Michigan 48843



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**PRECAUTIONARY STATEMENTS  
ENVIRONMENTAL HAZARDS**

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Trianum®<sup>TM</sup> WG Biological Fungicide is a preventative control of plant diseases. The active ingredient is a microbe, *Trichoderma harzianum* Rifai strain T-22, which when applied to seeds, transplants or other propagative material, or to soil or planting mixes, grows onto plant roots as they develop and provides protection against plant root pathogens such as *Pythium*, *Rhizoctonia*, *Fusarium*, *Cylindrocladium* and *Thielaviopsis*.

[Trianum®<sup>TM</sup> WG Biological Fungicide is a biological nematicide for control of plant-pest nematodes, including Soybean Cyst Nematode, *Heterodera glycines*.\*

**\*Not for use in California]**

Where early season seed rot and seedling diseases are expected, use chemically treated seed or other appropriate measures for stand establishment and Trianum®<sup>TM</sup> WG Biological Fungicide for root disease control.

Note: Trianum®<sup>TM</sup> WG Biological Fungicide contains live spores of a microbe that must be used prior to disease onset. Trianum®<sup>TM</sup> WG Biological Fungicide becomes active in soil or on plants when temperatures are above 50°F and is not effective while temperatures remain cold. Trianum®<sup>TM</sup> WG Biological Fungicide can be applied to sterilized or fumigated soil but must be applied after sterilization or fumigation.

Trianum®<sup>TM</sup> WG Biological Fungicide is for use in soil applications (drench, in soil furrow, and potting soil), and seed treatments on ornamentals, landscape plants, turf, and ornamental trees, including tree seedlings for transplanting into the forest.

**HOME & GARDEN SOIL DRENCH:** For preventative control of root diseases [and plant-pest nematodes\*] of vegetable, flower, and ornamental plants. For drench application to seeds, mix 1 to 3 tablespoons of Trianum®<sup>TM</sup> WG Biological Fungicide per gallon of water and apply with a watering can or other device to 25 feet of planting furrow before covering the seeds with soil.

**[\*Not For Use in California]**

For transplants, mix 1 to 3 tablespoons of Trianum®<sup>TM</sup> WG Biological Fungicide per gallon of water and apply ½ - 1 cup (4 - 8 fl. ounces) per plant at transplanting. For new plant beds, mix 1 - 3 tablespoons of Trianum®<sup>TM</sup> WG Biological Fungicide per gallon of water and apply at a rate of one gallon per 25 square feet. For established beds or potted plants, mix 1 - 3 tablespoons Trianum®<sup>TM</sup> WG Biological Fungicide per gallon of water and apply at a rate of one gallon per 25 square feet of plant bed or ½ - 1 cup (4 - 8 fl. ounces) per 4 - 8 inch pot.

Trianum®<sup>TM</sup> WG Biological Fungicide is designed for application to seeds, plant roots and soil for control of plant root diseases [and plant-pest nematodes\*] and not for spray application to foliage or fruit.

**[\*Not for use in California]**

{Note to reviewer: [bracketed text] is optional or alternative wording; {curly bracketed text} is informational.}  
{Additional California use restrictions (“\*Not for use in California” and appropriate asterisk “\*”) may be added to the above Directions for Use as required by the California Department of Pesticide Regulation.}

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store original container in a cool dry and locked place inaccessible to children and pets. Do not contaminate food or feed during storage. Do not store at temperatures above 75°F for prolonged periods. Keep container tightly closed when not in use.

**PESTICIDE DISPOSAL AND CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling, if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.