

## TRIARIO® WG

## **ACTIVE INGREDIENT**

Trichoderma harzianum Rifai strain T-22*	. 3.65%
OTHER INGREDIENTS	96.35%
TOTAL	00.00%

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

# CAUTION

**EPA Reg. No.:** 89635-3 **EPA Est. No.:** 63119-NLD-001

PRODUCT NUMBER: 11434 BATCH CODE: See Packaging (10)

**NET WEIGHT:** 11 lbs (5 kg) **EXPIRATION DATE:** See Packaging (17) as YMMDD

## **MANUFACTURED BY:**

Koppert Biological Systems, Inc. 1502 Old US 23 Howell, Michigan 48843 U.S.A.



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#### 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.

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 eye- wear, 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

Triario® WG 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, grows onto plant roots as they develop and provides protection against plant root pathogens including *Pythium*, *Rhizoctonia*, *Fusarium*, *Cylindrocladium*. *Sclerotinia*. *Sclerotium* and *Thielaviousis*.

Triario® WG is a biological nematicide for control of plant-pest nematodes, including Soybean Cyst Nematode, *Heterodera glycines*.

Triario® WG can be used alone or in conjunction with certain chemical fungicides; consult Triario® WG 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 Triario® WG 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 Triario® WG for root disease control.

Note: Triario® WG contains live spores of a microbe that must be used prior to disease onset. Triario® WG becomes active in soil or on plants when

temperatures are above 50°F and is not effective while temperatures remain cold. Triario® 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, and broadcast), and seed treatments in or on all raw agricultural commodities, food and fiber crops.

If Triario® WG 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

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 is limited to in-furrow with NO OVERHEAD SPRAY. See footnotes for specific directions concerning use pattern.

#### APPLY VIA GROUND APPLICATION ONLY

CROPS	USE	RATE
Agronomic Row or Other Field Crops: 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
Alfalfa Hay and Forage Crops: 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

CROPS	USE	RATE
Legume Vegetable and Field Crops: Snap and Dry beans, Lentils, Succulent and Dry Peas, Peanuts, Soybeans	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
Root Crops: Beets, Sugar beets, Red Beets, Carrots, Celeriac, Chicory, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Turnips	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
Small Grains: Rye, Sorghum, Millet	Planter Box (Onsite) 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
Tuber Crops: Potatoes, Sweet Potatoes, Yams, Jerusalem Artichoke, Cassava, Ginger	Planter Box (Onsite) In-furrow spray or transplant starter solution	0.03 - 3.0 oz / cwt. seed 1.0 - 32.0 oz / acre

Refer to Seed Treatment for True Seed Crops section for direction for onsite application to seed.

#### SEED TREATMENT FOR TRUE SEED CROPS

ONSITE APPLICATION TO SEED: Triario® WG 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. Triario® WG can be applied in sufficient water to coat seeds. For maximum seed protection, especially in cold soils, apply Triario® WG 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 Triario® WG 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 Triario® WG per lb of seed	Ounces of Triario® 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, sugarbeets	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		

# 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 Triario® WG 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 Triario® WG in 20 gallons of water.

For potatoes, consult your Koppert 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.

#### SOIL DRENCH

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. Triario® WG can be tank mixed with certain fertilizers and pesticides; consult tank mix compatibility chart below for detailed information.

TANK MIXING: Triario® WG can be tank mixed and is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products registered for use. If tank mixes are desired, observe the most restrictive of labeling limitations and precautions of all products used in mixtures. Consult the tank mix campatibility part below or the company for more information. This product should not be tank mixed with chemicals that contain the following active ingredients: benzoyl, imazlil, propiconazole, and triflumizole. Do not apply Triario® WG immediately before these pesticides are used. Follow the most restrictive of 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-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.

# 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 ft²	0.56 oz / gal
Iprodione	23.3% Flowable	Chipco 26019 Flo	4 oz / 1,000 ft²	0.6 oz / gal
Thiophanate methyl	50% Wettable Powder	Cleary's 3336 in water soluble bags	8 oz / 1,000 ft²	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 ft²	0.05 oz / gal
Chlorpyrifos	50% Emulsi- fiable Liquid	Lorsban 4E	3.2 oz / gal	3.2 oz / gal

PLANT SAFETY: Triario® WG has been tested on numerous plant varieties with no phytotoxic effects. However, since Triario® WG has not been tested on all plant varieties or in combination with all available tank mixes the manufacturer recommends testing Triario® WG 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 DISPOSAL:** 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.