72098-5

7/17/2003

TAEGRO™

For Plant Strengthening, Growth Enhancement and Suppression of Certain Diseases

% w/w ACTIVE INGREDIENT - Bacillus subtilis var. amyloliquefaciens Strain FZB24*...... 24.5% OTHER INGREDIENTS..... 75.5% 100.0% Total

Contains 5.0 x 10¹⁰ Colony Forming Units ("CFU")/gram.

KEEP OUT OF REACH OF CHILDREN WARNING JUL 17 2003 PRECAUTIONARY STATEMENTS Under the Federal Insecticule. Fuzzicide, and Rodenticlide Act as amended, for the pesticide HAZARDS TO HUMANS AND DOMESTIC ANIMALS d tered unde MPA Reg. No.

WARNING

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Causes skin irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

FIRST AID

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or if available, by administering syrup of ipecac. If a person is unconscious, do not give anything by mouth and do not induce vomiting. IF ON SKIN OR CLOTHING: Wash with plenty of soap and water. Get medical attention if irritation persists.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

IF IN EYES: Flush with plenty of water. Get medical attention if irritation develops.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Long-sleeved shirt and long pants. Waterproof gloves. Shoes plus socks. Dust-mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N, R, P or HE filter. 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.

EMERGENCY INFORMATION

For spill, leak, fire, exposure, or accident call CHEMTREC at 1-800-424-9300.

ENVIRONMENTAL HAZARDS

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 cleaning equipment or disposing of equipment washwaters.

Not for Sale or Us	se after (<u>Date to</u>	Be Inserted)
Net Contents:	Ounces;	Grams

Earth BioSciences Inc. 451 Orange Street New Haven, CT 06511 U.S.A.

EPA Establishment Number

EPA Registration Number: 72098-

Made in Germany Revision: 030716

DIRECTIONS FOR USE

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

Not for use, sale or distribution in Hawaii.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the 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.

For uses that are incorporated mechanically or by irrigation, do not enter treated areas without footwear until dust has settled. There is no restricted-entry interval (REI) requirement for uses that are incorporated. For all other uses, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

USER SAFETY RECOMMENDATIONS

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing.
- Remove personal protection equipment immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

GENERAL

TAEGRO is used for plant strengthening, enhancing growth, increasing yields, and for suppressing selected soil-born diseases such as *Rhizoctonia* and *Fusarium* on vegetables, tree, vine, bush and other crops, herbs and spices, ornamentals, shrubs, shade and forest trees and other plants.

TAEGRO is recommended for use on the following crops/plants grown in the greenhouse, indoors, or outdoors:

VEGETABLES

Radishes Artichoke, Jerusalem Collards Leeks Lentils Rhubarb **Artichokes** Com, Pop Rutabagas **Asparagus** Corn, Sweet Lettuce Cucumbers Lupin Salsify Beans **Bedding Plants** Eggplant Melons Seed Beds **Beets Endive** Mushrooms Seedling Plants **Mustard Greens Bok Choy** Flowers, Edible Spinach Broccoli Garlic New Zealand Spinach Squash **Brussels Sprouts** Ginseng Strawberries **Nursery Crops** Gourds **Sweet Potatoes** Cabbage Okra Swiss Chard Carrots Guar **Onions Tomatillos** Cassava Horseradish **Parsnips** Cauliflower **Jicama** Peas **Tomatoes** Celeriac Jucabbu **Peppers Turnips** Celerv Kale Wasabi **Potatoes** Chicory Kohlrabi **Pumpkins** Yams Chinese Cabbage

TREE, VINE, BUSH AND OTHER CROPS

Almonds Coffee Pineapple Loquat Apples Crabappie Lvchee Pistachio **Apricots** Cranberry Macadamia Nuts **Plantains** Avocados Currant, Black or Red Mandarin **Plums** Bananas Cuttings Mangoes Pomegranate **Bedding Plants** Dewberry Mayhaw Prunes, Dry **Beechnut** Elderberry Mulberry Prunes, Fresh Blackberry Filberts (Hazelnuts) **Nectarines Pummelo** Blueberry Quince Gooseberry **Nursery Crops Brazil Nut** Grapefruits Olives Raisins **Butternut** Guava **Oranges** Raspberry Caneberry Hops **Tamarind** Papaya Cashew (Nut and Fruit) Huckleberry Papayas **Tangelos** Cherries, Sweet Peaches Kiwifruit Tangerines Cherries, Tart Tobacco Kumquat Pears Cloudberry Lemons **Pecans** Walnuts, Black Limes Coconuts Persimmon Walnuts, English

HERBS AND SPICES

Allspice Cilantro Lavender Sage Anise Coriander Lemongrass Savory Balm Cress Marjoram Seed Beds Seedling Plants Basil Cumin **Mints Bedding Plants** Curry **Nursery Crops** Sorrel Borage Dill Nutmeg Tarragon Chamomile Fennel Oregano Thyme Caraway Ginger Parsley Watercress Catnip Horseradish Wintergreen Pennyroyal Chives Hyssop Rosemary

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ORNAMENTALS

Abutilon Achillea **Actinopteris** African Violet Ageratum Aglaonema Ajuga Allamanda Allium Alocasia Alyssum Amaryllis Anemone Annuals, Omamental **Anthurium** Aphelandra

Aralia Artemisia Aster Azalea Dracena Baby's Breath **Dusty Miller Bachelors Button Bedding Plants** Beefsteak Plant Begonia Bird of Paradise

Bleeding Heart Bougainvillea **Bromeliad Bulbs Buttercup Butterfly Bush** Cactus Caladium

Calathea Calceolaria Calendula Calla Lilv Calliandra Campanula Candy-Tuft Camation Celosia Centaurea Cerastium

Chinese Evergreen Chrysanthemum Cineraria Cockscomb Coleus Columbine Coral Bells

Corcus Coreopsis Cosmos Crossandra Croton Crown of Thoms

Cultivated Greens

Cut Florist Greens Cut Flowers Cuttings Cyclamen **Daffodils** Dahlia Daisy Daylily Delphinium Dianthus Dieffenbachia Dizygotheca

Easter Lilv Echeveria **Episcia** Euonymus Euphorbia Exacum

False Dragonhead Fatsia Ferns **Ficus Fittonia**

Foliage Plants Foxglove Freesia **Fuchsia** Gaillardia Gardenia Gazania Geranium Gerbera Geum Gladiolus Gloxinia

Grape Grass, Omamental **Ground Covers** Gynura Gypsophila Hedera **Hibiscus**

Hollyhock

Honeysuckle Hosta (Plantain Lily) Hoya (Wax Plant) Hvacinth Hydrangea Ice Plant **Impatiens**

Iris Ivy, Algerian lvy, English Jasmine Jessamine Kalanchoe Lantana Liatris Lilv

Lily of the Nile Liriope Lobelia Loosestrile Lupine Manvilla Maple, Flowering

Marigold Monarda Mondo Grass Morea, Yellow Myrtle Narcissus Nasturtium Nigella **Nursery Crops**

Ophiopogon Orchid Omithogalum Osmanthus Oxalis Pachysandra Pansy Pelargonium Peony Peperomia

Perwinkle Petunia Philodendrum Phlox Photinia

Pilea **Pinks** Pittosporum **Plugs**

Podocarpus

Poinsettia Poppy Portulaça Potentilla **Pothos**

Potted Flowering Plants

Praver Plant Primrose Pyracantha Ranunculus Rhododendron Rose

Rosemary Rubber Plant Rudbeckia Saintpaulia Salvia Sansevieria Schefflera Scilla Sedum Seed Beds Seedling Plants Sempervivum Senecio Shrubs Sinningia Snapdragon Spathiphyllum Stachys Statice Stock

Stokesia Strawberry, Wild Strawflower Sweet Pea Sweet William Syngonium Tulip Verbena Veronica Vinca

Virginia Creeper Wall Flower Wandering Jew Wisteria

Yarrow Yucca Zinnia

Violet

SHRUBS

Abelia Andromeda Arborvitae Aucuba Azalea Bamboo Barberry **Beauty Bush Bedding Plants** Blueberry, Ornamental Bog Rosemary **Bottlebrush** Boxwood **Bridal Wreath** Broom Buckthorn Camellia Caranaga Carob Heath Carex Heather

Clevera Cordvline Crape Myrtle Crotoneaster Cuttings Daphne Deutzia Elderberry Escallonia Eugenia Euonymus Fig Firethorn Forsythia **Fuchsia** Guava Hawthorn

Hibiscus

Hickory Holly Hydrangea Indian Hawthorn Juniper Laurel Leucothoe Ligustrum Lilac Lippia Manzanita Mock Orange Nandina **Nursery Crops** Oleander Oregon Grape Osmanthus

Privet Pyracantha Quince, Ornamental Rhamnus Rhododendron Rockrose Rose Santolina Snowberry Spicebrush Spirae St. Johnswort Vibumum Wax Myrtle Weigla

Pittosporum

Podocarous

Poinciana

SHADE AND FOREST TREES

Acacia Alder Ash Aspen Basswood **Bedding Plants** Beech Birch **Buckeye Butternut** Catalpa Cedar Chamaecyparis Cherry, Wild Chestnut Christmas Trees Conifers

Ceanothus

Cottonwood Crabapple Cuttings Cypress Dogwood Douglas Fir Elder Elm Fir **Forest Seedlings Forest Trees** Ginako Gum Hackberry Hawthorn Hemlock Hickory

Holly Hombeam Ironwood Juneberry Juniper Larch Linden Locust Magnolia Maple Mimosa Mulberry Myrtle **Nursery Crops** Oak

Pachistima

Photinia

Pachysandra

PawPaw Pine Poplar Privet Quince Redbud Redwood Sassafras Sourwood Spruce Sumac Sycamore Tamarack Tulip Tree Willow Yellowwood

Yew

TURF

Palm

Athletic Fields **Bahiagrass Bedding Plants** Bentgrass Bermudagrass Bluegrass, Kentucky Carpetgrass

Dichondra **Fescue** Golf Course, Fairways Golf Course, Greens Golf Course, Roughs Golf Course, Tees

Centipedegrass

Lawns, Commercial Lawns, Industrial Lawns, Institutional Lawns, Residential **Nursery Crops** Parks Ryegrass, Annual

Sod Farms St. Augustinegrass Turf. Commercial Turf, Newly Plugged Turf, Newly Sodded Zoysiagrass

Rvegrass, Perennial

MIXING INSTRUCTIONS

TAEGRO must be pre-mixed thoroughly with water to assure a properly concentrated suspension. Mix the necessary amount of TAEGRO with one-third the desired final volume of water. When the suspension is thoroughly mixed, add the remaining water. Apply content of entire suspension within a few hours of mixing to ensure viability of TAEGRO. For best results, agitate final suspension immediately before application to ensure complete and even suspension of product.

USE OF FUNGICIDES PRIOR TO OR FOLLOWING TREATMENT WITH TAEGRO

TAEGRO is not a species of fungus. Fungicides, other than those containing hydrogen peroxide or hydrogen dioxide, may be used prior to or following treatment with TAEGRO, if necessary, without compromising efficacy of TAEGRO.

APPLICATION INSTRUCTIONS

Apply TAEGRO as early as possible in the life cycle of the plant to enhance growth and disease resistance. TAEGRO should be applied to plants every few weeks for up to three to four applications as needed. For best results, apply TAEGRO to seedlings or to newly rooted cuttings.

<u>Transplants, Including Plugs</u> – TAEGRO may be applied to transplants by dipping or by drenching, making sure the root system is thoroughly soaked. For dipping, follow the instructions for "Cutting and Root Dips" before planting transplants into soil medium. For drenching, first plant the transplants into soil medium and then follow instructions for "Drenching."

<u>Drenching</u> – Apply TAEGRO to seedlings or to newly rooted cuttings. Drench plants with the TAEGRO suspension making sure the root system is thoroughly soaked. Allowing TAEGRO to work into the root zone.

Apply TAEGRO as follows:

- Per 100 gallons of water By weight use 75 grams or 2.6 ounces; By volume use 3.5 fluid ounces of TAEGRO
- Per 1 gallon of water By weight use 0.75 gram; By volume use 0.2 teaspoon of TAEGRO

<u>Cutting and Root Dips</u> – Stir suspension for several minutes to ensure complete mixture and to eliminate clumps. Place rootstock in the suspension for five to ten minutes allowing time for TAEGRO to penetrate the root zone. Ornamentals should receive at least one follow-up drench treatment two to three weeks following initial treatment.

Apply TAEGRO as follows:

- Per 10 gallons of water By weight, use 40 grams; By volume, 1.8 fluid ounces of TAEGRO
- Per 1 gallon of water By weight, use 4 grams; By volume, use 1 teaspoon of TAEGRO
- Per 1 Liter of water By weight, use 1 gram of TAEGRO

<u>Turf</u>: As an overhead spray, mix 75 grams of TAEGRO in 100 gallons of water. Before applying, stir product for several minutes to ensure complete suspension. Apply suspension with a conventional sprayer using 50 gallons to 100 gallons of water per acre. Water-in TAEGRO immediately after application with a minimum of 1/10 inch of water. For best results, make two or three applications spaced one week apart.

Row Crops: Mix 75 grams of TAEGRO in 100 gallons of water which will treat up to two acres. Before applying, stir product for several minutes to ensure complete suspension. At time of (or just following) planting, apply as a spray over furrow. Water-in TAEGRO immediately after application with a minimum of 1/10 inch of water. For best results, make two or three applications spaced one week apart.

<u>Hydroponics</u>: Prepare a stock solution by adding 1 gram of TAEGRO, for every 50 feet of irrigation tubing, in one gallon of water. Stir product for several minutes to ensure complete suspension. Add solution to circulating water system and allow to go through 3 to 5 watering cycles before clearing the system. For best results, make two or three applications spaced one week apart.

<u>Seed Treatments</u>: Prior to planting, mix 4 grams of TAEGRO in 1 liter of water (or 3 teaspoons per gallon of water). Stir solution for several minutes to ensure complete suspension. Pour seeds into solution and allow to soak for 10 to 30 minutes. For very small seeds, soaking seedlings in plug trays after germination might be easier.

<u>Tubers, Bulbs and Corms</u>: Mix 4 grams of TAEGRO in 1 liter of water (or 3 teaspoons per gallon of water). Stir solution for several minutes to ensure complete suspension. Dip tubers (or bulbs, etc.) for 10 to 30 minutes before planting. For best results, make two or three applications spaced one week apart.

<u>Soil Incorporation</u>: Mix TAEGRO into soil or soilless growing media at a rate of 250 grams per cubic yard. Thoroughly mix media, using mechanical mixing equipment, to ensure a uniform distribution of product. Incorporated into soil, TAEGRO can be raked into growing beds prior to planting.

<u>Mushrooms</u>. Mix TAEGRO into spawn medium at a rate of 10 grams per cubic foot. Thoroughly mix, using mechanical mixing equipment, to ensure a uniform distribution of product.

<u>Interiorscapes</u>. Before application, thoroughly moisten root zone with water. Mix 1 gram of TAEGRO per 1 liter of water (or 3/4 teaspoon per gallon of water). Stir solution for several minutes to ensure complete suspension. Drench solution onto root zone to ensure coverage to all roots. TAEGRO performs best when applied to seedlings or young plants. For best results, make two or three applications spaced one week apart.

<u>Orchids and Ferns</u>. For potted orchids and ferns, follow directions for drenching. For orchids and ferns with exposed roots, prepare 4 grams of TAEGRO in 1 liter of water (or 3 teaspoons per gallon of water). Pour solution into spray container (or squirt bottle) and spray roots to point of drip. TAEGRO performs best when applied to seedlings or young plants. For best results, make two or three applications spaced one week apart.

CHEMIGATION

General

TAEGRO may be applied alone or in combination with other pesticides registered for application through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move), food (basin); furrow; border or drip (trickle) irrigation system(s). Do not apply this product through any other type of irrigation system.

If TAEGRO is applied in combination with other pesticides, compatibility should be determined prior to application through the irrigation system. Pour the products into a small container of water in the correct proportions and mix. Let stand for ten (10) minutes and if the product combination remains mixed or can be easily remixed, the mixture is compatible

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 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 the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

General Instructions for Use of TAEGRO in Chemigation

A pesticide supply tank is recommended. Fill supply tank to approximately one-half of the desired volume and add TAEGRO, mixing while pouring in TAEGRO. Fill the supply tank to the desired volume. Continuous agitation of TAEGRO in the supply tank is required.

Mix 75 grams of TAEGRO in 100 gallons of water. Use irrigation levels of 0.2 to 0.5 inches of water per acre. Inject TAEGRO into irrigation system for no more than last 30 minutes of chemigation. For best results, make two or three applications spaced one week apart. Use more frequent applications for high disease pressure. Apply in sufficient amount of water to move into root zone, but not to runoff.

Chemigation System 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 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 (RPZ), back flow preventer or the functional equivalent in the water supply line upstream form 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.

Drip (Trickle) and Sprinkler Chemigation

- 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 dosed, 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.

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7. Do not apply using sprinkler chemigation when wind speed favors drift beyond the area intended for treatment.

Floor (Basin), Furrow and Border Chemigation

- 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.

STORAGE AND DISPOSAL

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

STORAGE: TAEGRO consists of living microbes. Store in a cool dry place. Do not freeze or expose to temperatures above 80° F. Opened packages should be closed tightly and stored in a cool dry place and used within one month or in a refrigerator and used within one year.

PESTICIDE DISPOSAL: Unused TAEGRO and wastes resulting from the use of this product may be disposed of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL: Dispose of empty container in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE.

Earth BioSciences Inc. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to manufacturer, and buyer assumes the risk for any such use.