

# BRANDT® Turfzilla™

## Systemic Fungicide

### ACTIVE INGREDIENTS:

Mono- and di-potassium salts of Phosphorous Acid\* ..... 45.8%

**OTHER INGREDIENTS** ..... 54.2%

**TOTAL** ..... 100.0%

\*Contains 5.17 lbs/gallon of the active ingredients mono- and di-potassium salts of Phosphorous Acid. Equivalent to 3.35 lbs Phosphorous Acid/gallon

EPA Reg. No. 83416-1-48813

EPA Est. 83416-KS-1

## KEEP OUT OF REACH OF CHILDREN CAUTION

### FIRST AID

<b>IF SWALLOWED:</b>	Immediately call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
<b>IF IN EYES:</b>	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.
<b>IF ON SKIN OR CLOTHING:</b>	Take off contaminated clothing. Immediately rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
<b>IF INHALED:</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For non-emergency information on product usage call 785-542-2577, Monday through Friday, 9 am to 5 pm (Central time). For medical emergencies call the National Poison Control Center at 1-800-222-1222.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist or vapors. Thoroughly wash with soap and water after handling. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment ("PPE").

#### PERSONAL PROTECTIVE EQUIPMENT (PPE) APPLICATORS, MIXERS, LOADERS AND OTHER HANDLERS MUST WEAR:

- Protective eyewear
- Long pants and long-sleeved shirt
- Waterproof gloves
- Shoes plus socks

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

See booklet for additional Precautionary Statements and complete Directions for Use.

Manufactured for:  
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www.BRANDT.co  
800 300 6559  
2024-05

**BRANDT®**

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- Shoes plus socks

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

## USER SAFETY RECOMMENDATIONS

### USERS SHOULD:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside; then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## 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 wash water or rinsate.

## DIRECTIONS FOR USE

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

Read entire label before using this product.

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 state or tribal agency responsible for pesticide registration.

## 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, unless wearing the appropriate PPE.

PPE required for early entry to treated areas that are permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls worn over short-sleeved shirt and short pants; waterproof gloves; shoes plus socks; and protective eyewear.

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements of 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.

Do not enter treated areas without protective clothing until sprays have dried.

## CHEMIGATION

Use of **BRANDT Turfzilla** through chemigation is not permitted in California.

Apply this product only through center pivot, solid set or drip (trickle) irrigation 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 nonuniform distribution of treated water. If you have questions about calibration, 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 a person under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### **Sprinkler and Drip (Trickle) Irrigation Systems:**

The irrigation 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. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. 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. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. 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. 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.

**Sprinkler Chemigation:** Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply **BRANDT Turfzilla** continuously for the duration of the water application. After treatment with **BRANDT Turfzilla** has been completed, avoid further irrigation of the treated area until foliage is dry or for 24 to 48 hours.

## APPLICATION INSTRUCTIONS

Apply **BRANDT Turfzilla** by various application methods, including foliar spray, soil drench, soil incorporation, basal bark application and bare root dip. For foliar sprays, apply **BRANDT Turfzilla** with sufficient water volumes for adequate coverage of foliage, according to crop and growth stage. To ensure good coverage, spray to wetness, but avoid runoff. When using **BRANDT Turfzilla** with Pentra-Bark® Bark Penetrating Surfactant (hereinafter "Pentra-Bark") adhere to both products' label directions. Use Pentra-Bark with only basal bark applications. Not for tree injection in New York State.

## MIXING INSTRUCTIONS

1. Fill the spray tank with 1/4-1/2 of the volume of water required before adding **BRANDT Turfzilla**.
2. Slowly add **BRANDT Turfzilla** to the tank and agitate by mechanical or hydraulic means.
3. Continue agitating as tank fills with water to the desired volume.
4. Maintain agitation during application.

## INJECTION PROCEDURES

**Not for tree injection in New York State**

### Guidelines:

Measure the tree diameter at check height (54" from ground) in inches to find the Diameter at Breast Height ("DBH"). If measuring circumference, divide this number by three to determine DBH. Locate drill holes low in tree, generally in or near the trunk flare, every 6" around the circumference of the tree. Do not inject into areas of obvious decay, canker or mechanical injury on the tree trunk.

### Basic Injection Procedures:

Drill holes 7/32" (5 mm) for Stinger Tip, 9/32" (7 mm) for the #3 Arborplug™ or 3/8" (9 mm) in diameter (for #4 Arborplug) into live sapwood to a minimum depth of 5/8" (15 mm) to a maximum of 2" (5 cm) at a right angle into the trunk uniformly around the tree circumference, using a sharp, clean drill bit. Initially apply no pressure to the drill; the bit will naturally cut through the bark. It will stop penetrating when it meets the harder sapwood. Next, apply pressure to the drill to cut 5/8" to 2" into the sapwood. Insert an Arborplug and tap in using the set tool and mallet. Use the #3 (9/32" d) or #4 (3/8" d) Arborplug in hardwoods. Use the #4 Arborplug in conifers. Using the injection needle, pierce the internal septum to start the injection process. Shut off and remove the injection needle upon completion.

### Resinous Conifers:

In resinous conifers, such as pine and spruce, insert the injection needle and immediately start liquid flow after inserting the Arborplug into the sapwood. A delay may reduce uptake due to resin flow. For trees exhibiting rapid resin flow (in spring during needle expansion) a deeper injection channel of 2" may assist in uptake.

### Monocots:

Inject into the trunk into lignified (hardened, woody) tissues typically within 2 to 3 ft. of the soil. Drill into the stem 4" deep using a 3/8" drill bit. Insert a #4 Arborplug. Inject through the Arborplug. Only one injection site is typically needed. Refer to Table 1 for dose recommendations based on canopy spread.

### When to Treat/Timing of Stem Injection Applications:

**Tree Health and Growing Conditions:** Apply prior to bud break in spring. Alternatively, make applications to trees in full leaf after elongation or after leaf senescence (coloration or drop) in fall. Moist soil conditions and moderate temperatures (i.e., >40°F and <90°F) favor transpiration and are optimal for injection uptake.

Best results are obtained when treatments are applied prior to infection. Treat trees early, when foliar symptoms (e.g., spot, blotch, blight) affect less than 10% of the canopy. Anticipate historical early season foliar infections by treating prior to bud break. For example, make application in late summer or early fall the year prior to infection.

*Phytophthora* root rot occurs most frequently in poorly drained and compacted soils. Susceptible species are at risk of infection following heavy precipitation or irrigation. Trees growing in low lying areas are also at risk of disease. Treat as early as possible in the infection cycle for best tree response.

For optimal uptake, apply when soil is moist, soil temperatures are above 40°F, ambient temperatures are between 40°F to 90°F and during the 24-hour period when transpiration is greatest, typically before 2:00 pm. Applications to drought- or heat-stressed trees may result in injury to tree tissue, poor treatment and subsequent control. Watering the trees prior to injection may enhance the uptake of **BRANDT Turfzilla**.

#### **Trunk Injection Application Instructions:**

This product is for use with the **BRANDT Turfzilla Tree Injection Systems** or those systems that meet the label and dosage requirements. Follow system manufacturer's use directions.

#### **Micro-Injection Applications for Use as Formulated (Non-Diluted):**

**BRANDT Turfzilla** may be applied undiluted by micro-injection. The **BRANDT Turfzilla** dose rates are 3.5 to 7.0 milliliters ("mLs") per inch DBH. Use the 3.5 mL rate in trees less than 12" in diameter. For trees 12" to 24" in diameter, apply 3.5 to 5.0 mLs per inch DBH. Use the higher rates of 5.0 to 7.0 mLs in trees greater than 24" in diameter.

#### **Calculating Application Rate:**

The dosages and number of application sites are based on tree diameter. To determine the application/dose rate per tree:

Measure the tree diameter in inches at chest height (54" from ground) to find the Diameter at Breast Height ("DBH").

If measuring tree circumference, divide circumference by three to obtain the DBH in inches.

Calculate the number of injection sites by dividing the DBH in inches by two. Multiply the tree DBH by the dosage rate (5.0 mL per inch DBH) to calculate the total dose in milliliters per tree.

Divide the total dose by the number of injection sites to determine required dosage per injection site.

**Example:** For a tree with a DBH of 10 inches (or circumference of 30 inches) and 3.5 mL dosage rate:

DBH = 10" (circumference 30" ÷ 3 = 10");

Divide DBH of 10" by 2 = 5 injection sites;

Multiply DBH" of 10 by 3.5 mL = 35 mL total dose per tree;

Divide 35 mL by 5 injection sites = 7 mL per injection site to deliver the required dosage.

#### **Micro-Injection Applications for Use as a Dilute Injection:**

#### **Ornamental, Forest, Conifers/Narrow-Leaved Evergreens and Crop Trees Calculating Application Rate and Mixing Instructions**

To determine the application rate, refer to Table 1 for (1:3) dilution of **BRANDT Turfzilla**. Identify plant size by determining tree diameter in inches at breast height (DBH) measured at 54" above the soil line. If measuring tree circumference divide by three to obtain the DBH.

In Table 1, one part of **BRANDT Turfzilla** is diluted with two parts water. Determine the amount of **BRANDT Turfzilla** needed by multiplying inch of DBH by the rate used (3.5 mLs). For example, to treat a 10" tree, 35 mLs of **BRANDT Turfzilla** is required.

To prepare the injection solution, carefully add **BRANDT Turfzilla** to the tank. In the example of the 10" tree, add 35 mLs of **BRANDT Turfzilla**. Next, fill the tank with water to bring up to volume, close and agitate to mix. In the example of a 10" tree, 65 mLs of water is added. Therefore, to treat a 10" DBH tree using the standard dilution, use 35 mLs of **BRANDT Turfzilla** in 65 mLs of water for a total injection volume of 100 mLs. Inject 20 mLs of the solution every 6" of trunk circumference as directed. Refer to Table 1 for specific close applications for inch diameter of tree.

**Table 1****Tree Injection per Inch Diameter and Dilution for Micro Injection Use**

To prepare 100 mLs of solution, measure 35 mLs of **BRANDT Turfzilla** and add water to bring up to volume. Apply 20 mLs of solution per injection site every 4-8" of trunk circumference. For specific disease instructions see tables below.

Inch DBH	mLs Solution*
5-8	60-80
9-12	100-120
13-16	140-160
17-20	180-200
21-24	220-240
25-28	260-280
29-32	300-320
33-36	340-360
37-40	380-400
41-44	420-440
45-48+	460-480

\*total dose per tree

**COMPATIBILITY**

**BRANDT Turfzilla** is compatible with most products used in agriculture. However, individual crop sensitivity to these mixtures may vary. Mixtures of **BRANDT Turfzilla** with some foliar fertilizers and copper products are not always compatible and may be phytotoxic to some plants. If these combinations or others have not been previously used, do not tank mix without first testing the compatibility of the tank mix. Do not apply tank mixture without first assessing phytotoxicity. Tank mix **BRANDT Turfzilla** with fertilizers only if crop safety has been established and the **BRANDT Turfzilla** use rates are carefully followed.

Due to **BRANDT Turfzilla's** acidic nature, do not use acidifying-type compatibility agents. Test spray adjuvants before use to confirm **BRANDT Turfzilla** compatibility. Use a jar test to test compatibility: In a clean jar using the same water source that is normally used to fill the spray tank, add the same proportions of each product and the appropriate quantity of water, then mix thoroughly. Let stand for 3 minutes. The mixture is compatible if it remains in solution or is readily remixed in the jar. Spray the solution that results from the compatibility test onto a few plants and inspect 3-7 days later for visual effects of phytotoxicity.

**RECIRCULATING HYDROPONIC SYSTEMS APPLICATIONS**

Disease	Rate	Application Program
General root rots ( <i>Pythium</i> and <i>Phytophthora</i> spp.) and root diseases	1-2 qts. of <b>BRANDT Turfzilla</b> in 5,300 gal. of nutrient solution OR 1-2 L of <b>BRANDT Turfzilla</b> in 20,000 L of nutrient solution	Apply every 4-6 weeks in the summer and every 8 weeks in the fall. Modify the application time interval depending on crop load, water quality and disease pressure.

## AGRICULTURAL APPLICATIONS

PALMS (Including Coconut Palms)*			
Disease	Application Method	Rate	Application Program
<i>Fusarium oxysporum</i>	Injection (Not for tree injection in New York State)	Between 4 tsp. and 2 fl. oz. of <b>BRANDT Turfzilla</b> per tree. Small canopy (6-12 ft. spread): 4 tsp (20 mLs) Medium canopy (13-24 ft. spread): 1.3 fl. oz. (40 mLs) Large canopy (>24 ft. spread): 2 fl. oz. (60 mLs)	Inject into trunk, drilling 4" deep, 3 ft. above soil level. To protect new spear growth, apply 10-15 weeks prior to expected initiation of new growth.

\*Not for use in California

## COMMERCIAL APPLICATIONS

CONIFERS (INCLUDING CHRISTMAS TREES) IN COMMERCIAL NURSERIES, FORESTS AND PLANTATIONS			
Apply in conjunction with good agricultural management practices on conifers including, but not limited to, Douglas fir, pines and spruce. Use higher application rate when disease pressure is severe. To prevent plant injury, do not exceed application or frequency rates stated below. Do not apply to conifers that are moisture or heat stressed. Do not graze livestock in treated areas of conifer nurseries or plantations. Do not feed forage from treated plantation/nursery areas.			
Disease	Application Method	Rate	Application Program
Root rot ( <i>Phytophthora</i> spp.)	Foliar spray	1-2 qts. of <b>BRANDT Turfzilla</b> per 30-100 gals. of water OR 2-4 tsp. of <b>BRANDT Turfzilla</b> per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals.
	Soil drench	1-2 qts. of <b>BRANDT Turfzilla</b> per 100 gals. of water OR 2-4 tsp. of <b>BRANDT Turfzilla</b> per gal. of water	Apply 1 gal. of solution per square yard of soil. Follow application with irrigation. Repeat as required at 14-21 day intervals.
	Bare root dip	1 qt. of <b>BRANDT Turfzilla</b> per 100 gals. of water OR 2 tsp. of <b>BRANDT Turfzilla</b> per gal. of water	Immediately before transplanting, dip transplants for 2 minutes; keep roots submerged and ensure root mass is thoroughly wet.

(continued)

Disease	Application Method	Rate	Application Program
Pine pitch canker ( <i>Fusarium subglutinans</i> )	Basal bark spray	1 gal. of <b>BRANDT Turfzilla</b> + 2 gals. of water + 4 fl. oz. of Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line.
	Injection (Not for tree injection in New York State)	20 mLs per tree of a mixture containing: 1 gal. of <b>BRANDT Turfzilla</b> + 2 gals. of water	Drill holes in trunk 3/16 inch (5 mm) in diameter and 1- 2 inches (25-50 mm) deep with a slight downward angle. Place syringe holes in the main tree trunk and space evenly around the trunk circumference. Suitable for use with Ag-murf gun, ARBORjet devices, Chemjet tree injectors or hydraulic tree injection devices. Trees must be at least 10" diameter at breast height.

#### FORESTRY, GOLF COURSE, LANDSCAPE, NURSERY AND PARK APPLICATIONS

Use on various shade trees such as, but not limited to, Ash, Aspen, Azalea, Bald Cypress, Beech, Birch, Black Gum, Black Locust, Buckeye, Catalpa, Cedar, Cherry (Stonefruits), Chestnut, Coffee Tree, Cork Tree, Crab Apple, Dogwood (All), Elder, Elm, Fir, Golden Raintree, Hawthorne, Hazelnut, Honey Locust, Juniper, Lilac, Linden, London Plane tree, Magnolia, Maples (All), Mock Orange, Monterey Pine, Oaks (All), Olives, Ornamental Pear, Pine, Plum, Pyracantha, Red Bud, Smoke Tree, Sumac, Sweet Birch, Sweet Gum, Sycamore, Tulip Tree, Viburnum, Walnut, White Cedar, White Pine, Willow, Witch Hazel, Zelkova and various conifers in the landscape.

Apply before disease development and in conjunction with good agricultural management practices. Use higher rate of application when disease pressure is severe. To prevent tree injury, do not exceed application or frequency rates as stated below. Do not apply to trees that are heat or moisture stressed. Do not apply to trees that are in a state of dormancy. Apply to only target plants.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> spp., <i>Pythium</i> spp. and Sudden Oak Death ( <i>Phytophthora ramorum</i> )	Injection (Not for tree injection in New York State)	1 fl. oz. of <b>BRANDT Turfzilla</b> per 21 fl. oz. of water	Using a slow drill, drill holes in trunk 3/16 inch (5 mm) in diameter into live sapwood (hole depth is dependent upon age of tree) with slight downward angle. Space injector holes evenly around the trunk circumference. Do not inject into areas of obvious decay, canker or mechanical injury that appear on the tree trunk. Calculate the amount of product required by measuring the tree using one of the following 3 methods and use the highest calculated number of injections: <ol style="list-style-type: none"> <li>1) 1 injection per square yard of canopy;</li> <li>2) 1 injection per yard of canopy diameter measured at the drip-line;</li> <li>3) 1 injection per 6 inches of trunk circumference measured 4 feet above soil level.</li> </ol> Use injection applicators that maintain positive pressure differential such as Ag-murf gun, ARBORjet devices, Chemjet, Marley® Injector, Sidewinder®, Smart Shot® injector or other hydraulic injector type equipment that forces solution into the tree sapwood.

(continued)



Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> spp., <i>Pythium</i> spp. and Sudden Oak Death ( <i>Phytophthora ramorum</i> )	Basal bark spray	62.4 fl. oz. of <b>BRANDT Turfzilla</b> + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	For best results apply in spring and fall. Best for thin bark trees such as dogwoods, lindens, maples and sycamores. Spray mixture around the complete trunk circumference until saturation/run-off. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present.
<i>Phytophthora</i> spp.*	Foliar spray	4-6 pts. of <b>BRANDT Turfzilla</b> per 100 gals. of water	Spray to the point of runoff and ensure thorough coverage.
Pine pitch canker ( <i>Fusarium subglutinans</i> )	Basal bark spray	1 gal. of <b>BRANDT Turfzilla</b> + 2 gals. of water + 4 fl. oz. of Pentra-Bark	Pines: Apply uniformly to trunk circumference anytime active growth is observed. Spray from top down to ground level from either first branch or from as high (5-6 feet) as possible without exposing applicator to drift. Spray to saturation/runoff. Apply with hydraulic sprayers, handheld pump-type sprayers, backpack sprayers, etc.
Pine pitch canker ( <i>Fusarium subglutinans</i> ) and Sycamore Anthracnose ( <i>Gnomonia platani</i> )	Injection (Not for tree injection in New York State)	20 ml per tree of a mixture containing: 1 gal. of <b>BRANDT Turfzilla</b> + 2 gals. of water	Using a slow drill, drill holes in trunk 3/16 inch (5 mm) in diameter and 1-2 inches (25-50 mm) deep with slight downward angle in the main tree trunk. Space injector holes evenly around the trunk circumference. Suitable for use with Ag-murf gun, ARBORjet devices, Chemjet tree injectors, Smart Shot injector or other positive pressure hydraulic tree injector equipment. Trees must be at least 10" diameter at breast height.
Apple black spot/ scab ( <i>Venturia inaequalis</i> ) and suppression of Anthracnose	Basal bark spray	62.4 fl. oz. of <b>BRANDT Turfzilla</b> + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	Apply in early spring at bud swell or silver tip stage of growth. Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. Treatment generally lasts 8-12 weeks depending on pathogen levels. Higher disease pressure will shorten the length of control. Various types of application equipment can be used such as hydraulic sprayers, handheld pump-type sprayers, backpack sprayers, hose-end applicators with backflow prevention devices and other similar application devices. For severe infestation of Anthracnose in large trees, apply in fall (at leaf senescence) and spring (bud swell to green tip).

(continued)

Disease	Application Method	Rate	Application Program
Various tree cankers	Basal bark spray	48 fl. oz. of <b>BRANDT Turfzilla</b> with 62.4 fl. oz. of water and 1 fl. oz. of Pentra-Bark	For severe canker infestations, apply at green tip or early spring (spring bud break) and repeat in fall prior to leaf senescence.
Fire blight	Foliar spray	1 1/2-3 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water <b>CA Only:</b> 1 1/2-2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. First application at pre-bloom (bud swell or silver tip stage). Apply at 7 day intervals until end of bloom period.
	Basal bark spray	50:50 solution of <b>BRANDT Turfzilla</b> and water + 1% of Pentra-Bark	Apply at bud swell.
Suppression of Anthracnose	Foliar spray	2-3 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre <b>CA Only:</b> 2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at pre-bloom (bud swell or green tip stage) with a supplemental application 14 days later with <b>BRANDT Turfzilla</b> or another fungicide effective against Anthracnose.
	Basal bark spray	62.4 fl. oz. of <b>BRANDT Turfzilla</b> + 62.4 fl. oz. of water + 1 1/2-3 fl. oz. of Pentra-Bark	Apply in early spring at bud swell until green tip stage of growth. Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Anthracnose, apply in fall prior to leaf senescence and again in spring for best results. For trees less than 18 inches DBH, apply in early spring.
Suppression of Verticillium wilt	Foliar spray	2-3 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre <b>CA Only:</b> 2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. For trees previously identified with infections, apply first application pre-bloom. Repeat applications at 21-30 day intervals.

(continued)

Disease	Application Method	Rate	Application Program
Suppression of Verticillium wilt and Armillaria	Basal bark spray	1 1/2-2 qts. of <b>BRANDT Turfzilla</b> + 2 qts. of water + 2 fl. oz. of Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger than 24 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Verticillium wilt, apply in fall prior to leaf senescence and again in spring for best results. For trees less than 24 inches DBH, apply in early spring.
Needle cast	Foliar spray	2 1/2-4 qts. of <b>BRANDT Turfzilla</b> per 30-100 gals. of water per acre <b>CA Only:</b> 2-2 1/2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Treat when symptoms first appear. Spray to runoff. Repeat application 30 days later.
Black walnut and English walnut: Thousand Cankers Disease ( <i>Geosmithia morbida</i> )		2 1/2-4 qts. of <b>BRANDT Turfzilla</b> in 50 gals. of water per acre or a 1% solution <b>CA Only:</b> 2-2 1/2 qts. of <b>BRANDT Turfzilla</b> in 50 gals. of water per acre or a 1% solution	Start spray program in spring and treat every 60 days in combination with an insecticide program to control Walnut Twig Beetle, <i>Pityphthorus juglandis</i> , during times of insect flight. Spray to runoff.
	Basal bark spray	32 fl. oz. of <b>BRANDT Turfzilla</b> + 48 fl. oz. of water + 2 fl. oz. of Pentra-Bark per 18 DBH inches of tree circumference	Spray mixture, to saturation/runoff, on trunk circumference from ground level up 6 feet or to first scaffolding limbs, if present. Treat in spring at leaf out and fall prior to leaf senescence. Use in combination with an insecticide program to control Walnut Twig Beetle.
<i>Phytophthora</i> spp.* and <i>Pythium</i> spp.*; and Suppression of Fire blight*, Anthracnose*, Oak blight*, Oak wilt*, Apple scab*, and Stem* and twig blights*	Soil injection or drench	0.5% solution in water	Uniformly drench soil or inject solution into the soil around the base of the plant using 1 gallon of solution per diameter inch of landscape plant measured 6 inches above ground.  For trees, uniformly drench soil or inject solution into the soil at the rate of 1 gallon of solution per diameter inch of tree trunk measured at DBH (4.5 feet from ground level).

\*Not for use in California

**Table 2****Dilution (1:30) for use with Tree I.V. for Sudden Oak Death**

Apply 40 mLs of solution per injection site every 4-8" of trunk circumference

*Not for use in New York State*

Inch DBH	mLs Solution*
5-8	120-160
9-12	200-240
13-16	280-320
17-20	360-400
21-24	440-480
25-28	520-560
29-32	600-640
33-36	678-718
37-40	758-798
41-44	838-878
45-48+	918-958

\*To prepare 1000 mLs of solution, measure 32.5 mLs of **BRANDT Turfzilla** and add water to bring up to volume.**GRASS GROWN FOR SEED PRODUCTION**

Use on turf grasses such as, but not limited to, bent, Bermuda, blue, buffalo, fescue, poa annua, rye and zoysia.

Disease	Application Method	Rate	Application Program
Damping-off and Root rot ( <i>Phytophthora</i> and <i>Pythium</i> spp.)	Foliar spray	1 1/2-2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply, as necessary, at 14-21 day intervals.

### NURSERY AND BEDDING PLANTS

Use on bedding plants grown in/on golf courses, greenhouses, interiorscapes, landscapes, nurseries and parks such as, but not limited to, ageratum, aglaonema, algerian ivy, anthurium, aphelandra, arborvitae, artemesia, aster, azaleas, baby's breath, begonia, bougainvillea, boxwood, caladium, carnation, cattleya skinneri, ceanothos, chrysanthemum, cissus, coleus, columbine, cotoneaster, daisy, delphinium, dieffenbachia, dogwood, Easter lily, English ivy, ficus, foxglove, gaillardia, geranium, gloxinia, hibiscus, impatiens, Japanese holly, juniper, lavender, leather fox fern, marigold, Monterey pink, pansy, peperomia, petunia, philodendron, phlox, photinia, pieris, pinks, poinsettia, pothos, pottosporum, primrose, prostrate rosemary, rhododendron, rosemary, salvia, schefflera, sedium, sempervivum, snapdragon, spathiphyllum, taxus media, verbena, vinca, white cedar, white pine, zinnia and zygocactus; and on vegetable transplants or cultivars grown in greenhouse, lath house or shade house sites.

Apply before disease development in conjunction with good agricultural management practices. Use higher application rate when disease pressure is severe. To prevent plant injury, do not exceed application or frequency rates as stated below. Do not apply to plants that are heat or moisture stressed. When applying to indoor plants do not overspray and apply only to target plants. If meeting these conditions is not possible, move plants to an outdoor location for treatment and drying before taking back indoors.

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	1 1/4-2 1/2 qts. of <b>BRANDT Turfzilla</b> per 30-100 gals. of water OR 1/2-1 1/8 fl. oz. of <b>BRANDT Turfzilla</b> per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals.
<i>Phytophthora</i> spp. and <i>Pythium</i> spp. diseases		1-2 qts. of <b>BRANDT Turfzilla</b> per 30-100 gals. of water OR 2-4 tsp. of <b>BRANDT Turfzilla</b> per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals. Do not apply more than 500 gals. of spray solution per acre.
	Soil drench	6 1/4-12 3/4 fl. oz. of <b>BRANDT Turfzilla</b> per 100 gals. of water	Apply 25 gals. per 100 sq. ft. Follow application with irrigation. Repeat as required at monthly intervals.
Lavender: <i>Phytophthora</i> spp.	Foliar spray	2 qts. of <b>BRANDT Turfzilla</b> per acre	Apply in 20-60 gals. per acre.
	Hand gun	2 qts. of <b>BRANDT Turfzilla</b> per 100 gals. of water	Thoroughly wet all foliage.

**ORNAMENTAL APPLICATIONS**

Use on ornamentals in golf courses, greenhouses, interiorscapes, landscapes, nurseries and parks such as, but not limited to, aglaonema, anthurium, aphelandra, arborvitae, azaleas, bougainvillea, boxwood, cattleya skinneri, ceanothus, cissus, cotoneaster, dieffenbachia, English ivy, eucalyptus, ficus, hibiscus, Japanese andromeda, Japanese holly, leather leaf fern, peperomia, philodendron, photinia, pieris, pittosporum, pothos, rhododendron, roses (container, field, landscape and mini varieties), schefflera, sedum, sempervivum, Spathiphyllum, syngonium, taxus media and zygocactus.

Apply before disease development and in conjunction with good agricultural management practices. Use higher application rate when disease pressure is severe. To prevent plant injury, do not exceed application or frequency rates as stated below. Do not apply to plants that are heat or moisture stressed. Do not apply to plants that are in a state of dormancy.

Disease	Application Method	Rate	Application Program
Bacterial blight ( <i>Xanthomonas campestris</i> ) pathogens: <i>dieffenbachia, ficus, hederiae</i> and <i>syngolini</i>	Foliar spray	2-4 pts. of <b>BRANDT Turfzilla</b> per 30-100 gals. of water OR 2-4 tsp. of <b>BRANDT Turfzilla</b> per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 7-14 day intervals.
Downy mildew		1 1/2-2 1/2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
<i>Phytophthora</i> spp. including Sudden Oak Death ( <i>Phytophthora ramorum</i> ) and <i>Pythium</i> spp.		1-2 qts. of <b>BRANDT Turfzilla</b> per 30-100 gals. of water OR 2-4 tsp. of <b>BRANDT Turfzilla</b> per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required, at 14-21 day intervals.
	Soil drench	6 1/4-12 3/4 fl. oz. of <b>BRANDT Turfzilla</b> per 100 gals. of water	Apply 25 gals. of solution per 100 sq. ft. Follow application with irrigation. Repeat as required, at monthly intervals.
	Soil incorporation	1-2 pts. of <b>BRANDT Turfzilla</b> per cubic yard of soil	Just prior to potting, mix into growing media. For high disease pressure, apply by foliar spray or soil drench.
	Root dip	2 pts. of <b>BRANDT Turfzilla</b> per 100 gals. of water OR 2 tsp. of <b>BRANDT Turfzilla</b> per gallon of water	Immediately before transplanting, dip transplants' bare roots for 2 minutes, keeping roots submerged. Thoroughly wet root mass.

(continued)

Disease	Application Method	Rate	Application Program
Powdery mildew	Foliar spray	1 1/2-2 1/2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Application amount depends upon plant type, maturity and application technique/method. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Suppression of Anthracnose		2-2 1/2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply prior to onset of disease. Apply spray to saturation/runoff.
Roses: Black spot		2 qts. of <b>BRANDT Turfzilla</b> in 30-100 gals. of water OR 2 qts. of <b>BRANDT Turfzilla</b> per gal. of water (0.5% solution v/v concentration)	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply when disease is present and spray to the point of runoff.
<i>Phytophthora</i> spp.* and <i>Pythium</i> spp.*; and Suppression of Fire blight*, Anthracnose*, Oak blight*, Oak wilt*, Apple scab*, and Stem* and twig blights*	Soil injection or drench	0.5% solution in water	Uniformly drench soil or inject solution into the soil around the base of the plant using 1 gallon of solution per diameter inch of landscape plant measured 6 inches above ground.  For trees, uniformly drench soil or inject solution into the soil at the rate of 1 gallon of solution per diameter inch of tree trunk measured at DBH (4.5 feet from ground level).

\*Not for use in California

#### SEED TREATMENT

Use on agricultural crop seeds from crops listed elsewhere on this label. Do not use treated seed for food, feed or oil. Dye used to color treated seed must be an EPA-approved dye (refer to 40 CFR § 153.155(c)). Seed treatment on agricultural establishments in hopper box, planter box or other seed treatment application at or immediately before planting is within the scope of the WPS, while commercial treatment of seeds is not within the scope of the WPS.

Disease	Application Method	Rate
<i>Phytophthora</i> , <i>Pythium</i> and <i>Fusarium</i> spp.	Apply at planting or in commercial seed treatment operations	8-24 fl. oz. of <b>BRANDT Turfzilla</b> per 100 lbs. of seed or 4-10 qts. of <b>BRANDT Turfzilla</b> per ton of seed, depending on the size of the seeds to be treated.
<i>Damping-off*</i> ( <i>Phytophthora</i> spp. and <i>Pythium</i> spp. prevention)		3.5 fl. oz. of <b>BRANDT Turfzilla</b> per 220.5 lbs. of seed.

\*Not for use in California

**TURF**

Use on turf grasses in/on commercial landscapes, commercial turf production sites, golf courses, parks and sod farms. Apply preventatively when conditions favor disease and repeat as directed below. Use higher application rate when disease pressure is severe.

Disease	Application Method	Rate	Application Program
Damping-off ( <i>Pythium</i> spp.)	Foliar spray	5-10 fl. oz. of <b>BRANDT Turfzilla</b> per 1000 sq. ft.	Apply in 1-2 gals. of water per 1000 sq. ft. Ensure grass is thoroughly wet. Repeat as required at 14-21 day intervals. Do not irrigate or mow treated areas until spray has completely dried.
Suppression of Anthracnose			Apply in 5 gals. of water per 1000 sq. ft. Ensure grass is thoroughly wet. Apply every 14-21 days in a rotational fungicide program. Do not irrigate or mow treated areas until spray has completely dried.
Suppression of Pink snow mold		5-10 fl. oz. of <b>BRANDT Turfzilla</b> in 2 gals. of water per 1000 sq. ft.	Apply when temperatures and conditions favor disease outbreak; or apply in fall prior to onset of winter with other snow mold controlling fungicides.
Rhizoctonia			Repeat applications at 14-17 day intervals.

**TURF-TANK MIXTURES**

Apply to turf grasses in/on commercial landscapes, commercial turf production sites, golf courses, parks and sod farms. Do not graze animals on treated turf areas. Do not feed treated turf clippings to poultry or livestock.

Product	Disease	Rate per 1,000 sq. ft.	Application Program
<b>BRANDT Turfzilla</b> + mancozeb-containing fungicide	Summer stress complex ( <i>Rhizoctonia</i> and <i>Pythium</i> spp.)	5-10 fl. oz. of <b>BRANDT Turfzilla</b> + 4-8 fl. oz. of mancozeb-containing fungicide	Apply as a foliar spray in 1-5 gals. of water per 1000 sq. ft. Apply as a preventive spray and repeat as required at 2 week intervals. Do not irrigate or mow treated areas until spray has completely dried.
	Pink snow mold	5-10 fl. oz. per 1000 sq. ft.	Apply prior to disease development or when conditions favor disease outbreak.



## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep this product in containers stored upright and secured with the original closure. Do not store this product near any heat source or near strong oxidants. If transfer to another container becomes necessary, ensure that the container is clearly labeled, the container is a type suitable for the product and is clean and free of other materials.

**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. Triple rinse (or equivalent) or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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