



# ARBORBIOTIC™

OXYTETRACYCLINE	GROUP 41	FUNGICIDE
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ArborBiotic™ is a systemic water-soluble injectable antibiotic for the control or suppression of Huanglongbing (HLB, Citrus Greening) caused by *Candidatus Liberibacter asiaticus* (Clas) in orange trees (Crop Subgroup 10-10A).

**FOR DISTRIBUTION AND USE ONLY WITHIN FLORIDA**  
**LABEL EXPIRATION DATE: DECEMBER 4, 2025**

Active Ingredient	
Oxytetracycline Hydrochloride*	39.60%
Other Ingredients	60.40%
Total	100.00%
*Equivalent to 36.7% oxytetracycline	
Net Contents: 10 Kg	
EPA Reg. No. 88482-1	
Florida SLN No. FL230002	
EPA Est. No. 061205-FL-001	

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING      AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

## **FIRST AID**

Call a poison control center or doctor for treatment advice.

### **IF IN EYES**

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

### **IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have the 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 to an unconscious person.

### **IF INHALED**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth.
- Call a poison control center or doctor for future medical advice.

### **IF ON SKIN OR CLOTHING**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

## **HOT LINE NUMBER**

Have the product container with you when calling a poison control center or doctor or going for treatment. You may contact the American Association of Poison Control Centers at 1-800-222-1222 for emergency medical treatment information.

## **PRECAUTIONARY STATEMENTS**

### **HAZARD TO HUMANS AND DOMESTIC ANIMALS**

**WARNING:** Causes substantial but temporary eye injury. Harmful if inhaled. Avoid breathing dust. Do not get in eyes or on clothing. Wear protective eyewear (goggles, facemask, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. This material is not to be used for medical, veterinary or human purposes.

### **Personal Protective Equipment (PPE)**

#### **Applicators and other handlers must wear:**

- Long sleeved shirt
- Long pants
- Chemical-resistant gloves
- Shoes plus socks
- Eye protection (goggles) or face protection (face shield)

#### **Mixer loaders must wear:**

- Long sleeved shirt
- Long pants
- Chemical-resistant gloves
- Shoes plus socks
- Eye protection (goggles) or face protection (face shield)

- NIOSH-approved particulate filtering face piece respirator with any N, R or P filter (TC- 84A); OR an elastomeric NIOSH-approved particulate respirator with any N, R or P filter (TC-84A); OR a NIOSH-approved powered air purifying respirator with an HE filter (TC- 21C). Higher level respirators that are NIOSH-approved for particulates that contain oil may also be used.

### **User Safety Requirements**

- Follow 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.

### **User Safety Recommendations**

Users must:

- 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/PPE.
- 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**

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 cleaning equipment or disposing of equipment wash water or rinsate.

### **Resistance Management**

This product contains a Group 41 Fungicide/Bactericide, Oxytetracycline. To reduce the development of bacteria with resistance to Oxytetracycline and to maintain the effectiveness of this and other bactericide/fungicide products, this product should only be used to treat Citrus Greening Disease or Huanglongbing (HLB) in orange trees.

Follow appropriate resistance management strategies to reduce the development of bacteria with resistance to Oxytetracycline and to maintain product efficacy:

- Use only the specified and full-strength application rates.
- When alternatives are available, use of ArborBiotic™ should be alternated with other fungicide/bactericide with a different mode of action.
- Monitor treated groves for signs of decreased product performance.
- Use tank-mixtures or premixes with products from different target site of action Groups as long as the involved products are all registered for the same use and are both effective at the tank mix or prepack rate on the pathogen(s) of concern. Do not use any product that has a prohibition on tank mixing. When tank mixing, follow the most restrictive use directions.
- The mode of action for oxytetracycline is the inhibition of protein synthesis. This product should only be used to treat or prevent infections that are proven or strongly suspected to be caused by the indicated target bacteria. To reduce likelihood of bacteria developing resistance to oxytetracycline, follow the crop-specific resistance-management and use direction information present on this labeling. Use of this product should conform to resistance-management practices/strategies established for the crop and use area (for example the use of IPM, disease forecasting models, resistance crop varieties, etc.) Consult your local extension/crop consultant or State agricultural authority if reduced efficacy is suspected.
- Adopt an integrated disease-management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications.

For further information or to report signs of suspected resistance, contact Invaio Sciences, Inc., 75 Moulton Street, Cambridge, MA 02138, (617)-401-9511.

## DIRECTIONS FOR USE

It is a violation of State and Federal law to use this product in a manner inconsistent with its labeling. Persons using this product must comply with all applicable directions, restrictions, and precautions found on this labeling and that of the label of the federally registered product upon which this amendment is based. This labeling must be in the possession of the user at the time of pesticide application.

### Restrictions

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift or dust. Only protected handlers may be in the area during application and the reentry interval. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**This product must only be applied with the Invaio Sciences, Inc. Trecise™ system.**

### Application Restrictions

- **ONLY APPLY** with Invaio Sciences, Inc. Trecise™ systems.
- **DO NOT** use for medical, veterinary, or human purposes.
- **DO NOT** use in residential areas.
- **DO NOT** use for foliar or aerial applications.
- **DO NOT** apply this product through any type of irrigation system, including chemigation.
- **DO NOT** apply more than 380 mg (150 mg Oxytetracycline Hydrochloride [OTC-HCL]) of this product per tree per season.
- **DO NOT** apply more than twice per year.
- **DO NOT** apply any other products containing Oxytetracycline in the same year this product is applied.

### 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 apply to uses 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 12 hours. 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, wear:

- Coveralls over long-sleeved shirts and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

The device may require up to 14 days to dispense its contents during the application period. Warning signs must be posted in treated areas during the entire application period. Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

## Application Methods

### Invaio Sciences, Inc. Trecise™ System

**ArborBiotic™ must be used with Invaio Sciences, Inc. Trecise™ devices<sup>1</sup>.** Read and follow carefully Invaio Sciences, Inc. manufacturer use directions.

The device comprises the Trecise™ tip connected to a prefilled and pressurized application container holding the ArborBiotic™ product in aqueous solution mixed for application. Safely remove Trecise™ devices according to manufacturer's directions after a maximum of 14 days. Follow the manufacturer's directions for proper cleaning, storage, and recycling of the Trecise™ device components.

The Trecise™ devices must be applied using Trecise™ application technology specified by Invaio Sciences, Inc. to ensure correct application. The Trecise™ devices and application tools are configured to precisely deliver the aqueous application solution into the vascular system of the tree.

Depending on tree size, 95 mg ArborBiotic™ (37.5 mg Oxytetracycline Hydrochloride) to 380 mg ArborBiotic™ (150 mg Oxytetracycline Hydrochloride) will be mixed with water and applied as an aqueous application solution ranging from a minimum volume of 30 mL to 240 mL per season.

Invaio Sciences, Inc. or their agent(s) will supply pre-filled and pre-assembled Trecise™ devices ready for tree installation. The application process will be performed by Invaio Sciences, Inc. or their agent(s).

### Preparation of Trecise™ devices

Invaio Sciences, Inc. or their agent(s) will fill and assemble Trecise™ devices with an aqueous solution of ArborBiotic™ using Invaio Sciences, Inc. filling equipment operated according to manufacturer's directions. Trecise™ devices holding the aqueous application solution should not be stored at ambient temperature for longer than five (5) days prior to application. Once Trecise™ devices are removed from ambient temperature storage, the application should take place within 24 hours.

Surplus Trecise™ devices remaining at the end of the application day cannot be used for future applications and must be returned and recycled following the manufacturer's directions.

### Application rate and timing

Trunk (scion) diameter 10 cm above the graft determines product application rate and the size of the Trecise™ tip (Table 1).

Trees with a trunk diameter between 1 cm and 6 cm may have up to two applications into the rootstock with a maximum of 190 mg of product (75 mg Oxytetracycline Hydrochloride) per season.

Trees with a trunk diameter greater than 6 cm and up to 15 cm may have one or two applications into the rootstock with a maximum of 380 mg of product (150 mg Oxytetracycline Hydrochloride) per season. Do not apply to trees with a trunk diameter greater than 15 cm.

**Timing and Site of Applications:** Make first application as soon as possible following previous season's harvest. Make second application at least 60 days after the first one. Make second application injection in the rootstock of the same tree at least 90 degrees around the circumference of the tree from the previous injection site. Avoid applications during the months of May through July.

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<sup>1</sup> Patents pending.

**Pre-Harvest Interval:** 120 days.

Follow these instructions to minimize injection site damage and to maximize product uptake, distribution, and effectiveness.

Table 1. Trecise™ system requirements per application based on trunk diameter.

Trunk (scion) diameter (cm)	Amount of product applied per application (mg)	Volume of application solution per application (mL)	Amount of OTC-HCL per application (mg)	Maximum number of applications per season	Maximum amount of OTC-HCL per season (mg)	Recommended Trecise™ tip <sup>2</sup> size
1 – 6	95	30 – 60	37.5	2	75	Medium
> 6 – 15 <sup>3</sup>	190	60 – 120	75	2	150	Large
	380	90 – 240	150	1	150	

<sup>2</sup>Patents pending.

<sup>3</sup>Do not apply to trees with a trunk diameter greater than 15 cm.

### Removal of Trecise™ devices

Remove devices from the tree no later than 14 days after application.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep tightly closed and sealed. Product is temperature sensitive. Store in a cool (<77°F / 25°C), dry place away from heat and open flames with minimum exposure to the atmosphere. Avoid extremes in temperature.

**Pesticide Disposal:** Liquid wastes resulting from use of this product must be collected and disposed of at an approved waste disposal facility.

**Container Handling:** Non-refillable container. Do not reuse or refill this container. Triple rinse the container to remove any leftover residue from the container. Then offer for recycling if available or dispose of in a sanitary landfill or by incineration or if allowed by state and local authorities, by burning. If burned, stay out of smoke or equivalent. Offer for recycling if available. If not, discard in sanitary landfill.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**Notice:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Tree injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or tree conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of INVAIO SCIENCES, INC. or seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold INVAIO SCIENCES, INC. and seller harmless for any claims relating to such factors.

INVAIO SCIENCES, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions. This warranty does not extend to the use of the product contrary to label instructions, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, INVAIO SCIENCES, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the fullest extent permitted by applicable law, INVAIO SCIENCES, INC. or Seller shall not be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF INVAIO SCIENCES, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

INVAIO SCIENCES, INC. and Seller offer this product, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of INVAIO SCIENCES, INC.

This label may contain some or all of the following statements.

ArborBiotic™ can be used to treat the following bacterial diseases in the following trees:

**Citrus Greening, Huanglongbing, Candidatus Liberibacter asiaticus, on orange trees**

**FIFRA 24(c) Registrant:** Invaio Sciences, Inc., 75 Moulton Street, Cambridge, MA 02138, (617)-401-9511

ArborBiotic™ is a trademark of MGF Scientific, Inc.

Trecise™ is a trademark of Invaio Sciences, Inc.