

88482-1

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Dr. Matthew Brooks
Director, Ag-Chem Consulting
12208 Quinque Lane
Clifton, VA 20124

FEB 07 2012

Subject: Arborbiotic
EPA Reg. No. 88482-1
EPA Decision Number: 459949
Your label amendment submitted on January 8, 2012 to create a split label; one for use in palm trees and one for use in all other approved trees

Dear Dr. Brooks:

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

One copy of the label stamped "Accepted" is enclosed for your records. This label supersedes all labels previously accepted for this product. Please submit one copy of the final printed label before the product is released for shipment. If you have any questions, please contact Heather Garvie by phone at: 703-308-0034 or via email at: garvie.heather@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Heather Garvie for".

Shaja Joyner
Product Manager 20
Fungicide Branch
Registration Division

Enclosure: Stamped label "Accepted"

ArborBiotic



[Sublabel 1: Palm Tree Use]

Arbor Biotic™ is a systemic water soluble injectable antibiotic for the control of certain bacterial diseases in non-food bearing palms including Phytoplasma Disease (Lethal Yellowing and Texas Phoenix Palm Decline).

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

ACCEPTED

FEB 07 2012

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg No. **88482-1**

KEEP OUT OF REACH OF CHILDREN WARNING

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 INHALED

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

This material is not to be used for medical veterinary or human purposes.

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.

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PRECAUTIONARY STATEMENT
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.

Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical resistant category selection chart.

Applicators and other handlers must wear:

- Long sleeved shirt
- Long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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.

DIRECTIONS FOR USE

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

Restrictions

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. Do not apply this product through any type of irrigation system. To be used on non-crop bearing ornamentals only. **Fruit and nuts from treated trees are not for consumption.**

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 made of any waterproof material
- Shoes plus socks
- Protective eyewear

Application Methods

ArborBiotic™ can be used with a variety of root flare and/or trunk injection devices. For all injection devices, read carefully and follow all manufacturer use directions. Most injection devices may require several minutes or more to empty into tree, however, some may take longer to empty depending on the health of the treated tree and local weather conditions. Do not leave the injection devices unattended. Do not leave empty injection devices on trees. Promptly and safely remove them according to manufacturer's directions. Follow the manufacturer's directions for proper cleaning and storage of the injection device.

Application in Palm Trees

Phytoplasma Disease (Lethal Yellowing and Texas Phoenix Palm Decline) in Palms using the MGF Palm Injection Valve (PIV)™

Apply to Palms 3-4 times annually for continuous protection from Phytoplasma Disease. For suppression of symptoms in a symptomatic palm use up to 3 times the amounts described in the table under Application Instructions. Once symptoms subside return to a preventative dosing schedule.

Mixing Instructions

Two bottle sizes of ArborBiotic™ are available for palms.

Bottle Size	Amount of Water to Add	Total Yield of Mixed Solution	# of Palms Treated
28 gram	30cc	47cc	≈ 10 palms
86 gram	90cc	145cc	≈ 30 palms

1. Determine total number of doses needed.
2. Remove lid from bottle and add purified water to the contents of the bottle (30cc for 28 gram bottle, 90cc for 86 gram bottle).
3. Replace lid and shake vigorously for several minutes until ArborBiotic™ powder is completely dissolved.

Application Instructions

Due to the nature of a palm's vascular system, only one injection site is needed per palm per application.

Small Palm	Average Palm	Large Palm
<6' clear trunk*	6'-15' clear trunk*	>15' clear trunk*
≈3cc solution	≈5cc solution	≈6.5cc solution

*Trunk diameter should be taken into consideration. A small trunk diameter can reduce by one category the dose required and a large trunk diameter can increase by one category the dose required.

First Injection in palm:

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1. Using a 5/16" drill bit drill into the trunk at a slight downward angle to a depth of approximately 3.5" for small palms, 5.5" for average size palms and 6.5" for large palms. Injection site can be anywhere in the trunk of the palm but is typically performed at knee height. Stay away from adventitious roots (roots above ground level), areas of decay or old injection sites.
 2. Insert MGF Palm Injection Valve (PIV)™ into tree leaving approximately 1/4" of valve exposed.
 3. Draw ArborBiotic™ solution into syringe and inject correct amount of solution as described in chart above into MGF Palm Injection Valve (PIV)™ by piercing the valve seal with syringe needle and squeezing the handle. The valve stays with the palm.

Second Injection in the Same Site:

1. Prepare ArborBiotic™ solution as described in Mixing Instructions for Palms.
2. Using a pair of pliers, remove the used valve from the trunk of the palm.
3. Using a 5/16" drill bit, drill into the trunk approximately 1/2" deeper than the original injection depth to get to clean wood.
4. Insert used valve flush into the palm. This lets the user know that the valve and injection site has been used twice.
5. Draw ArborBiotic™ solution into syringe and inject correct amount of solution as described in the table above into MGF Palm Injection Valve (PIV)™ by piercing the valve seal with syringe needle and squeezing the handle. The valve stays with palm.

*Each Valve and injection site can only be used two times. After two injections start again with "First Injection" instructions.

STORAGE AND DISPOSAL

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

Pesticide Storage: Keep tightly closed and sealed. Product is moisture, temperature and light sensitive. Product is hygroscopic so protect from moisture. 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. If the injection device does not completely empty within a few hours, depressurize the device and remove from the tree in an inverted position to avoid the solution leaking.

Pesticide Disposal: Wastes resulting from use of this product must be disposed of on site or 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 MGF SCIENTIFIC, 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 MGF SCIENTIFIC, INC. and seller harmless for any claims relating to such factors.

MGF SCIENTIFIC, 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, MGF SCIENTIFIC, 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, MGF SCIENTIFIC,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 MGF SCIENTIFIC,INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

MGF SCIENTIFIC,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 MGF SCIENTIFIC,INC.

MGF Scientific, Inc.
P.O. Box 210847
Royal Palm Beach, FL 33421
(561) 798-1377

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:

Phytoplasma Disease
Palms

ArborBiotic™ by MGF Scientific, Inc.

[Sublabel 2: Label for use in all other labeled trees except palm]

ArborBiotic™ is a systemic water soluble injectable antibiotic for the control of certain bacterial diseases in non-food bearing trees including Bacterial Leaf Scorch.

Active Ingredient	
Oxytetracycline Hydrochloride*	39.60%
Other Ingredients	60.40%
Total	100.00%

*Equivalent to 36.7% oxytetracycline

Net Contents:

EPA Reg. No 88482-1
EPA Est. No. 061205-FL-001

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Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical resistant category selection chart.

Applicators and other handlers must wear:

- Long sleeved shirt
- Long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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.

DIRECTIONS FOR USE

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Restrictions

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- Shoes plus socks
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Application Methods

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Application Method

For treatment of Bacterial Leaf Scorch, Fire Blight and Ash Yellows using the MGF Tree Injection Valve (TIV)™

Apply once per growing season in spring after leaves have fully developed. Scorch symptoms are suppressed only during the growing season in which treatment is administered. Re-treatment is required during each growing season for continued suppression.

Mixing Instructions

Two bottle sizes of ArborBiotic™ are available for trees.

Bottle Size	Amount of Water to Add	Total Yield of Mixed Solution	DBH Treated
2.8 grams	2cc	3.5cc	10"
28 grams	20cc	35cc	100"

1. Measure the diameter of the tree at breast height (DBH) to determine the total number and/or size of ArborBiotic™ bottles needed.
2. Remove lid from bottle and add purified water to the contents of the bottle (2cc for 2.8 gram bottle, 20cc for 28gram bottle).
3. Replace lid and shake vigorously for several minutes until ArborBiotic™ powder is completely dissolved.

Application Instructions

1. Identify and/or expose the root flare.

2. Determine the diameter of the tree at breast height (DBH) and divide by two to determine the number of injection sites needed. Alternatively, determine the circumference of the tree at breast height and divide by six to determine the number of injections sites needed. Round down for a fractional number.
3. Using a 23/64" drill bit, drill injection sites at a slight downward angle into the root flare to a depth of approximately 3/4" or until healthy xylem tissue is located below the bark. Injection sites should be spaced at approximately 6" intervals around the tree.
4. Insert MGF Tree Injection Valve (TIV)TM flush or slightly recessed into the tree, lightly tapping in with a hammer. The valve stays with the tree permanently and is not removed.
5. Draw ArborBioticTM solution prepared as described in Mixing Instructions into syringe and inject 0.7cc of mixed solution into each MGF Tree Injection Valve (TIV)TM by piercing the valve seal with syringe needle and squeezing the handle.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage or disposal.
Pesticide Storage: Keep tightly closed and sealed. Product is moisture, temperature and light sensitive. Product is hygroscopic so protect from moisture. 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. If the injection device does not completely empty within a few hours, depressurize the device and remove from the tree in an inverted position to avoid the solution leaking.
Pesticide Disposal: Wastes resulting from use of this product must be disposed of on site or 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

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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 MGF SCIENTIFIC, 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 MGF SCIENTIFIC, INC. and seller harmless for any claims relating to such factors.

MGF SCIENTIFIC, 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, MGF SCIENTIFIC, 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, MGF SCIENTIFIC, 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 MGF SCIENTIFIC, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

MGF SCIENTIFIC, 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 MGF SCIENTIFIC, INC.

MGF Scientific, Inc.
P.O. Box 210847
Royal Palm Beach, FL 33421
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ArborBiotic™ can be used to treat the following bacterial diseases in the following trees:

Ash Yellows

Ash

Bacterial blast

Apple
Pear

Bacterial Blight

Flowering Crabapple
Hawthorn
Lilac
Walnut

Bacterial Canker

Hickory
Horsechestnut
Maple
Mimosa
Oak
Persian Walnut
Walnut

Bacterial Leaf Scorch

Elm
Gum
Oak
Oleander
Sycamore

Blossom Blast

Citrus
Grapefruit
Lime
Tea rose
Walnut

Blossom Blight and Canker

Almond
Apricot
Cherry
Peach
Pear
Plum

Bunch Disease

Butternut
Pecan
Walnut

Crown Gall

Flowering Quince
Quince

Decline

Peach
Pear
Nectarine

Fire Blight

Apple
Apricot
Cherry
Chokecherry
Cliff rose
Cotoneaster
Crabapple
Creambush
Firethorn
Flowering Quince
Hawthorn
Indian Hawthorn
Loquat
Mountain Ash
Ninebark
Pear
Pearlbush
Photinia
Plum
Quince
Rose
Serviceberry

Fruit Spot

Avocado

Leaf and Shoot Blight

Mock Orange

Leaf Blight and Brown Rot

Mandarin Orange

Leaf Spot

Basswood
Hibiscus
Magnolia

Lethal Decline

Basswood
Hibiscus
Magnolia

Phloem Necrosis

Elm

Stem Canker

Poplar

Stubborn Disease

Citrus

Tip Dieback

Maple

Vascular Yellows

Ash
Elm

Wetwood / Slime Flux

Apple
Cherry
Elm
Hickory
Maple
Oak
Peach
Pear
Plum
Poplar
Walnut

Witches' Broom (caused by mycoplasma-like organisms)

Apple
Ash
Dogwood
Elm
Lilac
Locust
Peach
Sassafras

X-Disease

Cherry
Chokecherry
Nectarine
Peach
Plum