

# ArborSystems®

Tree Injection Solutions

## Wedgle® Direct-Inject™ TREE INJECTION SYSTEM



## Direct-Inject™ CHEMICALS

### Boxer®

Insecticide - Miticide

### Shepherd®

Fungicide

### Greyhound™

Insecticide

### Whippet®

Fungicide

### Pointer®

Insecticide

### GreenTree Pro

Nutriboosters® 0-15-10

### Retriever®

Insecticide

### Iron/Manganese

Nutriboosters®

### Terrier™

Systemic Antibiotic

### Manganese

Nutriboosters®

### Springer™

Systemic Antibiotic

### Iron

Nutriboosters®

### Pinscher®

PR

### PK Pro®

Nutriboosters® 0-36-23

## EZJECT® SOIL INJECTOR & HERBICIDE LANCE



# Wedgle<sup>®</sup> Direct-Inject<sup>™</sup> TREE INJECTION SYSTEM

## The smarter way to treat trees

### The first and only no-drill tree trunk-injection method

The Wedgle Direct-Inject System was introduced in 1993 and remains the first and only no-drill tree trunk-injection system on the market. New injection tips were pioneered for conifer Direct-Inject treatments in 2006. Injection of palms began in 2011. A new injection tip was introduced in 2013 that penetrates palms easier (Palms are not trees and have a husk instead of bark). Macro-Infusion chemicals in one quart bottles were introduced in 2019 for higher volume tree injection devices.

Why drill trees to “care” for them when you can effectively control pests and prevent disease without drilling?

Compare the Wedgle Direct-Inject System to spraying, soil drenching, or any other trunk-injection method. You won’t find a more effective, efficient way to treat trees.

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#### 1 Increase treatment effectiveness

The Direct-Inject process injects chemicals directly into the active zone delivering faster results and lowering your cost per tree.

#### 2 Treat almost any tree in five minutes or less

There is no waiting for uptake, no guarding, and no return trips. You’ll treat more trees in less time, reducing labor costs.

#### 3 Prevent drilling damage in trees

Direct-Inject is the only trunk injection method that does not require drilling, preventing drilling damage, long-term wounding, and wasted tree energy.

#### 4 Reduce costs and increase profits

You’ll use less chemical and reduce your labor costs with the Direct-Inject process.

#### 5 Simplify the tree-care process

The Direct-Inject System requires no power, no drills, no pumps. Everything you need is included in one carrying case.

#### Notice of Warranty

ArborSystems warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. ArborSystems does not make or authorize any agent or representative to make any other warranty, guarantee or representation, expressed or implied, concerning this product.

# Don't Drill... Direct Inject!

## Direct-Inject protects trees...

Inject chemical directly through bark without drilling. No air enters the sapwood so chemical is readily absorbed.

Vascular system is undisturbed, maintaining nutrient movement upward and laterally.

Chemical is injected into the cambial zone where the tree can use it effectively. You'll see improved results from less chemical.

Multiple or annual treatments can be made without injuring the tree.



**1.** Wedgle Direct-Inject System makes injections through the bark without drilling and without damaging sapwood.

**2.** Chemical is injected into the cambial zone where the tree can easily use it. *(dyed red for visibility)*

## Drilling damages trees...

Drilling for injections allows air into the sapwood disrupting translocation and reducing chemical effectiveness.

Air entering the vascular system triggers wound response causing callusing and Compartmentalization Of Decay In Trees (CODIT).

Drilled holes often extend beyond active layers so chemical is lost in non-active wood where the tree cannot use it.

Drilling wounds cause permanent damage. Repeated drilling can seriously impact tree vitality.



**3.** Injections requiring drilling damage the sapwood, disrupt nutrient movement, and cause permanent damage.

**4.** Drilled holes allow pest and disease entry.

**Fast, easy, proven effective**

# Wedgle® Direct-Inject™ TREE INJECTION SYSTEM

Wedgle® Direct-Inject™ unit is protected by U.S. Patent #5,901,498



## Quick-Connect™ (QC) couplers

The Wedgle injection unit features two QC couplers for fast, easy set up and clean up.

- ▶ The front QC coupler lets you snap on injection tips – many styles treat virtually any tree.
- ▶ The top QC coupler lets you change chemical packs quickly with no spilling.

## Preset delivery

Injector is preset to deliver 1 ml of chemical with each full stroke of the handles. Easily adjusts to deliver 0.5 ml dose.

## Easy to use

Instruction Guide is included with every unit. Tips stop automatically in the correct location.

*Pull back top QC coupler to snap on chemical pack. ▶*

## Closed system

Self-sealing chemical packs and sealed injection system virtually eliminate exposure concerns. No mixing, spilling, spraying. Inject in any position. No caplets to guard or retrieve.

## How-To videos

Complete training, use and maintenance videos online at [ArborSystems.com](http://ArborSystems.com).





# Everything you need to treat trees in one convenient case

The rugged, high-impact plastic carrying case is included at no extra charge with every Wedgle Direct-Inject System purchase. The all-in-one case with custom foam inserts holds the injection unit, all tools, and up to six 120 ml chemical packs. Case without contents also available for those who already own a Wedgle Injection Unit.



Hose Cleaning Adapter



Wrench



Diameter Tape Measure

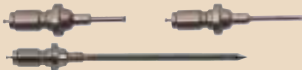


Cleaning Brush

## Tools of the Wedgle Direct-Inject System



▲ Portle Tips are inserted with the Tip Setter.



The SpeedChek<sup>®</sup> Wedge Punch feeds the WedgeChek<sup>™</sup> strip for easier use.



### Kit includes:

- ▶ Wedgle Direct-Inject Injection Unit
- ▶ Six Wedgle Tips: two 1.5" tips, four .75" tips
- ▶ SpeedChek WedgeChek Punch
- ▶ 40 SpeedCheks
- ▶ Tip Setter
- ▶ Twelve Portle Tips: five 1.5" tips, five .75" tips, two .5" tips
- ▶ Three containers for tips and parts storage and tips cleaning
- ▶ Two water packs for priming
- ▶ Diameter tape measure
- ▶ Deflector shield
- ▶ Garden hose adapter for cleaning
- ▶ Safety glasses
- ▶ Cleaning brush
- ▶ ArborSystems ball cap
- ▶ Multipurpose maintenance tool
- ▶ Maintenance kit
- ▶ Instruction guide with parts chart
- ▶ Literature
- ▶ Rubber mallet
- ▶ Knee pad

**No waiting for uptake, no guarding, no drilling**

# Treat almost any tree in five minutes or less

## How to make an injection

### 1 Select the appropriate injection tip

- ▶ Choose the injection tip most appropriate for the tree and conditions. The Wedge Direct-Inject Instruction Guide provides complete information on selecting tips.

### 2 Set up for injections

- ▶ Determine the distance between injection sites and chemical dosage by referring to label instructions.
- ▶ If using Wedge or WedgePlus Tips, insert WedgeCheks around the tree.
- ▶ If using Portle Tips, use the Tip Setter to insert one tip at a time into the tree.
- ▶ Snap on chemical pack to the top QC coupler on the Wedge injection unit.

### 3 Inject, check, and go

- ▶ Make injections moving around the tree.
- ▶ Press the valve on Portle and WedgePlus Tips to confirm absorption.
- ▶ Always slowly withdraw tips.

WedgeChek™ is protected by  
U.S. Patent #5,797,215



WedgeCheks are used when making injections using Wedge or WedgePlus injection tips.



▶ When injections are made using the Portle Tips, use the Tip Setter; no WedgeCheks are needed.

Injector is preset to deliver 1 ml of chemical with each full stroke of the handles. ▼



## Tip Setter

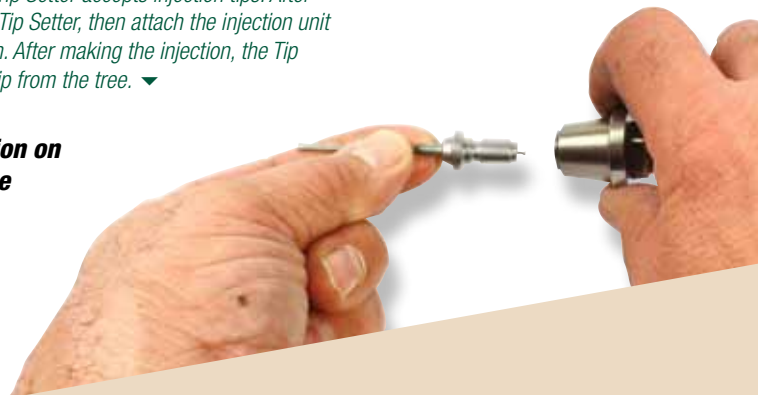
### Used with Portle Tips

Conifers, palms, and some hardwoods may be injected using Portle Tips and the Tip Setter. (WedgeCheks are not used with these tips.) With an easy sliding action, the Tip Setter drives these heavier tips deep into the active areas of conifers and palms, or through the tough outer bark of some hardwoods.



*QC coupler on the end of the Tip Setter accepts injection tips. After setting tip in tree, release the Tip Setter, then attach the injection unit to the tip to make the injection. After making the injection, the Tip Setter is used to remove the tip from the tree. ▼*

**For complete information on using the Tip Setter, see the How-To Videos at [ArborSystems.com](http://ArborSystems.com)**



## The High-Volume Kit

### Treat hundreds of trees nonstop

Make up to 1,000 injections without reloading chemical. Simply attach the transfer line to the 1000 ml chemical pack and the Direct-Inject unit. Heavy-duty nylon backpack\* has padded shoulder straps and carrying handle.

\*Product picture may differ from actual product.  
Injector and chemical not included

**Chemical pack cage, with snap pin lock, holds and protects 1000 ml chemical pack. Cage fits inside backpack and keeps transfer line firmly attached. ▶**



# Quick-Connect™ Injection Tips

*Treat more types of trees,  
more effectively*



## Original Wedgle® Tips

Ideal for most hardwoods, the Wedgle Tip features a patented wedge-shaped end which delivers chemical precisely to a tree's cambial zone, the space between the bark and the outer ring of sapwood. Used with self-sealing WedgeCheks which keep chemical in the tree when tip is withdrawn.



## WedgePlus™ Tips

Designed for injecting larger quantity of chemical. Same Wedgle Tip design with check valve in hub. Used with WedgeCheks. Check valve lets you remove the injection unit from the tip so you can make other injections while letting the tree absorb chemical.



## Portle® Tips

Ideal for injecting conifers and palms, the Portle Tip has openings, or ports, along the length of the tip which inject chemical at multiple locations. A check valve in the hub of the tip keeps chemical in the tree while all injections are being made. Portle Tips are also useful for injecting difficult-to-treat hardwoods or when making large-volume injections (such as for Dutch Elm disease or Oak Wilt) or late season injections when most trees are harder to penetrate.

## Additional Tips

ArborSystems is continually developing new tips to be used with the Wedgle Direct-Inject system. Customer input is always encouraged and when practical, new tip designs will be added to the available tips.

Refer to [arborsystems.com/tips](http://arborsystems.com/tips) for the current offering of injection tips.



## Quick-Connect™ Chemical Packs

Change chemical packs in a snap

### 120 ml chemical packs

Chemical packs snap on to injection unit top QC coupler. No mixing. Air-free packs are easy to prime and work at any angle.

### 1000 ml chemical packs

Used with the High-Volume kit (shown on page 7). Same QC coupling systems as the 120 ml chemical pack. Ask your distributor for the chemicals available in 1000 ml packs.

See pages 9-16 for our  
chemical products.

Wedgle® Tip is protected by U.S. Patent #5,239,773  
Portle® Tip is protected by U.S. Patent #7,178,286



# For two-year control of Emerald Ash Borer and Gypsy Moth

# Insecticide- Miticide

## BOXER® Insecticide-Miticide

An ArborSystems® Direct-Inject™ Chemical

*Chemical: Emamectin Benzoate*

BOXER Insecticide-Miticide is for the control of mature and immature insect and mite pests of deciduous and coniferous trees and palm trees including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards and forested sites in private, municipal, state, tribal and national areas. BOXER Insecticide-Miticide contains the active ingredient Emamectin Benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pests for up to two years.

### ACTIVE INGREDIENT:

Emamectin Benzoate  
(CAS No. 155569-91-8) ..... 4%

OTHER INGREDIENTS ..... 96%  
Total ..... 100%

Contains 0.36 lb Emamectin per gallon



**Emerald Ash Borers**

### PEST CONTROLLED

- Ambrosia Beetles<sup>1</sup>
- Aphid<sup>1</sup>
- Bagworm
- Clearwing Borers (such as Ash and Sequoia Pine Pitch Tube Moth)
- Cone Beetle<sup>1</sup> (Conophthora spp.)
- Conifer Mites<sup>1</sup>
- Cynipid Gall Wasp<sup>1</sup>
- Fall Webworm
- Flatheaded Borers (such as adult and larvae of Bronze Birch Borer<sup>1</sup>, Emerald Ash Borer and Two-lined Chestnut Borer<sup>1</sup>)
- Gypsy Moth
- Honeylocust Plant Bug
- Japanese Beetle
- Leafminers (such as Coleoptera, Hymenoptera, Lepidoptera)
- Mimosa Webworm
- Oak Worm
- Pine Cone Seed Bug (suppression of Leptoglossus and Tetyra spp. in the year of treatment)
- Pine Coneworm (Dioryctria spp.)
- Pine Needle Scale
- Pinewood Nematode
- Red Palm Mite
- Roundheaded Borers (excluding Asian Longhorn Beetles)
- Sawfly (such as Elm, Pine)
- Tent Caterpillars (such as Eastern, Forest, Pacific and Western)
- Tussock Moth
- Western Spruce Budworm
- Winter Moth

<sup>1</sup>Not registered for use in California

**EPA Reg. No. 69117-12**

# Insecticides

## Control Caterpillars, Scale and Japanese Beetles

### RETRIEVER® Insecticide

An ArborSystems Direct-Inject Chemical

#### Chemical: Acetamiprid

Retriever Insecticide is for tree injection application to ornamental or non-bearing fruit and nut trees.

#### ACTIVE INGREDIENT:

Acetamiprid (CAS No. 135410-20-7) ... 8.5%

OTHER INGREDIENTS ..... 91.5%

Total ..... 100.0 %

Contains 0.76 lb Acetamiprid per gallon



Japanese Beetles

#### PRODUCT SPECIFIC USE DIRECTIONS

This product is intended to be applied by only professional applicators for insect control on Ornamental and Non-bearing Deciduous and Evergreen Fruit and Nut Trees. "Non-bearing" means crops that will not produce a harvestable raw product in the season that product is applied.

#### PEST CONTROLLED

- Adelgids
- Adult leaf eating beetles (including European chafer, Japanese beetle and Oriental beetle)
- Aphids (including Cotton, Green, Peach, Melon and Woolly)
- Borers (including Flathead apple, but not Emerald ash or Asian longhorned beetles)
- Caterpillars (including Asian cycad scale, Cabbage looper, Diamondback moth, Fall army worm, Gypsy moth, Southern army worm and Tobacco bud worm)
- Citrus and other thrips (including Cotton, Palm and Western flower)
- Crane fly larvae
- European pine sawfly
- Fungus gnat larvae
- Hard and soft scales (including Caribbean black, Cottony maple, Euonymus, Fletcher, Florida wax, Green shield, Indian wax, Oyster shell, Pine needle, San Jose and Tea)
- Hemlock wooly adelgids
- Leaf miners (including Chrysanthemum and Citrus leaf)
- Leafhoppers (including Glassy wing sharpshooter and Potato)
- Mealybugs (including Citrus, Longtail, Maderia, Obscure and Pink hibiscus)
- Psyllids
- Scale insects (including Azalea bark, Calico, Gloomy)
- Strawberry weevils
- Swede midge
- Tentiform leaf miner
- Whiteflies (including Banded, Giant, Greenhouse, Silverleaf and Sweet potato)

EPA Reg. No. 69117-14

**GREYHOUND™ Insecticide**

An ArborSystems Direct-Inject Chemical

**Chemical: Abamectin**

For systemic insect control in ornamental trees and ornamental palm plants in utility rights-of-way, urban environments, residential areas and interior plantscapes (such as those in domestic landscape/garden areas, public display plantings, recreation areas, highway and other transportation rights-of-way, scenic corridors, storage areas, forest areas, campgrounds and other uncultivated, nonagricultural areas).

For the treatment of woody trees and shrubs for the control of Elm Leaf Beetles, Lace Bugs, Leaf Miners, Mites and Pine Wilt (Pine Nematodes) and for the suppression of Aphids, Thrips and Whiteflies.

**ACTIVE INGREDIENT:**

Abamectin  
(CAS Nos. 65195-56-4 and 65195-55-3).. 2%

**OTHER INGREDIENTS** ..... 98%

**Total**..... 100%

Contains 0.0047 lb Abamectin per 4 fl oz (120 ml) pack.

Contains 0.392 lb Abamectin per 1 qt 2 fl oz (1000 ml) pack.

**INDICATIONS AND TREATMENT TIMING**

As a preventative, apply in the early spring prior to insect activity in the tree. As a curative, apply as needed spring through fall, provided the bark is pliable enough to accept the chemical injections. Due to toxicity to bees, apply only after the tree has finished blooming for the growing season.

Pest control is anticipated to last a typical growing season, although it may be necessary to make two applications per year under severe pest pressure.

This product has been evaluated for phytotoxicity on a wide range of ornamental plants. However, since all ornamental plants have not been tested, it is recommended that one plant be treated first to make certain that no phytotoxicity occurs. Do not use on sick plants or plants weakened by extreme environmental conditions such as heat, flooding, cold, etc.



**Suppression of Whiteflies**

# Insecticides

## Controls Emerald Ash Borers, Spotted Lantern Flies and Whiteflies

### POINTER® Insecticide

An ArborSystems Direct-Inject Chemical

#### Chemical: Imidacloprid

For systemic insect control in a wide variety of ornamental trees in utility rights-of-way, urban environments, residential areas and interior landscapes (such as those in domestic landscape/garden areas, public display plantings, recreation areas, highway and other transportation rights-of-way, scenic corridors, forest areas, campgrounds and other uncultivated, nonagricultural areas).

#### ACTIVE INGREDIENT:

Imidacloprid (CAS No. 138261-41-3).... 5%

OTHER INGREDIENTS ..... 95%

Total ..... 100%

Contains 0.2 oz (6 grams) active ingredient per 4 fl oz (120 ml) pack. Contains 1.8 oz (50.1 grams) active ingredient per 1 qt 2 fl oz (1000 ml) pack.



Pointer®  
Insecticide

**Proven control of Hemlock Wooly Adelgids,  
Spotted Lantern Fly and EAB.**

#### INDICATIONS

**As a preventative**, apply in the early spring prior to insect activity in the tree.

**As a remedial** (on trees already showing symptoms of infestation), apply as needed spring through fall, provided the bark is pliable enough to accept the chemical injections.

#### PEST CONTROLLED

Adelgids (including Hemlock Wooly Adelgids)  
Aphids  
Armored Scales (suppression)  
Asiatic Garden Beetles  
Bark Beetles (including Asian Longhorned Beetle, Citrus Longhorned Beetle and IPS)  
Black Vine Weevil Larvae  
Chafers  
Elm Leaf Beetles  
Eucalyptus Longhorned Borer  
Flatheaded Borers (including Alder-Birch Borer, Bronze Birch Borer and Emerald Ash Borer)  
Japanese Beetles  
Japanese Beetle Larvae  
Lacebugs  
Leafhoppers  
Leafminers  
Mealybugs  
Oriental Beetles  
Pine Bark Beetles  
Pine Tip Moth Larvae  
Psyllids  
Royal Palm Bugs  
Sawfly Larvae  
Soft Scale Insects  
Spotted Lantern Fly  
Thrips (suppression)  
Whiteflies

EPA Reg. No. 69117-1



# Prevents Oak Wilt and Tip Blight

## Effective control of Sudden Oak Death and Canker Blights

# Fungicides

### SHEPHERD® Fungicide

An ArborSystems Direct-Inject Chemical

**Chemical: Propiconazole**

For systemic fungicide suppression of selected diseases in ornamental trees.

**ACTIVE INGREDIENT:**

Propiconazole (CAS No. 60207-90-1) . 14.3%

**OTHER INGREDIENTS** ..... 85.7%

**Total** ..... 100.0%

#### DISEASES

**Diplodia Tip Blight**

**Oak Wilt Disease**

**Dutch Elm Disease**

#### Anthracnose and Leaf Diseases in Hardwoods

##### Anthracnose in Sycamore

**Leaf diseases** in Oaks, Crabapple, and non-bearing ornamentals including Cherry, Citrus, Pecan, Pyracantha and Walnut

**Powdery Mildew** in Ash, Dogwood, Lilac and non-bearing ornamental Crabapple and Pecan

**Flower Blight** of non-bearing ornamental Cherry, Peach, Plum

**Rust** on Douglas Fir, Hawthorn, Poplars, Shasta Fir, and non-bearing ornamental Crabapple

### WHIPPET® Fungicide

An ArborSystems Direct-Inject Chemical

**Chemical: \*Mono- and di-potassium salts of Phosphorus Acid**

For systemic fungicide control of Sudden Oak Death, Sycamore Anthracnose, Stem and Canker Blights, Pine Pitch Canker, Beech Decline and Phytophthora spp. diseases in a wide variety of trees and palm plants in urban environmental, residential areas and interior plantscapes.

**ACTIVE INGREDIENT:**

\*Mono- and di-potassium salts of

Phosphorous Acid ..... 45.8%

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

**Total:** ..... 100.0%

\*Equivalent to 3.35 lbs Phosphorous Acid/gallon. Contains 2.4 oz (69 grams) active ingredient per 4 fl oz (120 ml) pack. Contains 20 fl oz (575 grams) active ingredient per 1 qt 2 fl oz (1000 ml) pack.

#### TREE SPECIES\*

Use on palm plants and trees such as, but not limited to: Almond, Apple, Avocado, Beech, Cedar, Chestnut, Conifers (including Christmas trees and Forests), Crabapple, Dogwood, Elm, Fir, Hawthorne, Juniper, Linden, Macadamia Nut, Monterey Pine, Oaks (Coastal, Live, Shreve, Black Canyon), Oriental Pear, Ornamental Pear, Ornamentals, Pyracantha, Stone Fruit, Sweet Birch, Sweet Gum, Sycamore, Tan Oaks, White Pine, White Cedar and Willow

\*Use in California limited to oaks (Coastal, Live, Shreve, Black Canyon)

# Plant Growth Regulator

PGR

**Prevents fruit/seed set substantially reducing cleanup concerns and labor**

## PINSCHER® PGR

An ArborSystems Direct-Inject Chemical

### **Chemical: Dikegulac-sodium\***

*Not available in CA, HI.*

For systemic chemical pinching of landscape ornamentals. Prevents flowering and fruit/seed set of landscape ornamentals. Pinches off the fruit of landscape ornamentals

#### **ACTIVE INGREDIENT:**

Dikegulac-sodium* (CAS No. 52508-35-7) .....	18.5%
<b>OTHER INGREDIENTS</b> .....	<b>81.5%</b>
<b>Total</b> .....	<b>100.0%</b>

\*Sodium salt of 2,3:4,6-bis-O-(1-methylethylidene)-a-L-xylo-2-hexulofuranosonic acid

Contains 0.2 oz (24 grams) active ingredient per 4 fl oz (120 ml) pack. Contains 1.7 oz (200 grams) active ingredient per 1 qt 2 fl oz (1000 ml) pack.

#### **TREE SPECIES**

Ornamental trees (such as but not limited to) Cottonwood (*Populus deltoides*), Eucalyptus (*Eucalyptus* spp.), London plane tree (*Platanus acerifolia*), Maples [Bigleaf (*Acer macrophyllum*), Norway (*Acer platanoides*), Red (*Acer rubrum*) and Silver (*Acer saccharinum*)] and Sycamore (*Platanus occidentalis*)

**EPA Reg. No. 69117-7**

### **Resources for Professionals Available at ArborSystems.com**

#### **Find our product?**

Distributor search is available on our website for searching by state or zip code. (Please contact us directly if you are outside the United States)

#### **Learning or training?**

Watch the how-to-videos or download free information from our website.

#### **Need to know the chemical amount to use for a tree**

Use our application calculator to assist in your planning but always read and follow the label instructions.

#### **Growing your business?**

Use the marketing materials that include flyers, brochures and direct mail postcards available for free download from our website.

#### **Which state is a product registered?**

Look at our chemical registrations by state on our website to find your answer.

#### **Require label information?**

Find specimen labels, safety data sheets (SDS) and other information on our website

#### **Where will you find ArborSystems?**

See our calendar on our websites for events, trade shows and meetings to see ArborSystems products.

#### **Looking for news and industry updates?**

Read and follow our blog for the latest news from ArborSystems and arborists, tree care professionals and urban foresters using our products.

**Provides seasonal suppression for a variety of diseases**

# Systemic Antibiotics

A ready-to-use systemic antibiotic for palms, non-crop bearing ornamental trees and large woody shrubs providing seasonal suppression for diseases listed below. Preventative application is more effective than therapeutic treatment in trees showing disease symptoms.

## **TERRIER™ Systemic Antibiotic**

An ArborSystems Direct-Inject Chemical

**Chemical:**  
*Oxytetracycline hydrochloride*

For suppression of certain diseases including bacterial leaf scorch, fire blight, yellows diseases and phloem necrosis on ornamental trees.

### **ACTIVE INGREDIENT:**

Oxytetracycline hydrochloride ..... 4.3%

**OTHER INGREDIENTS** ..... 95.7%

**Total** ..... 100.0%

### **PRODUCT INFORMATION**

Terrier Systemic Antibiotic is a ready-to-use antibiotic for non-crop bearing ornamental trees and large woody shrubs. Terrier Systemic Antibiotic provides seasonal suppression of a variety of diseases including bacterial leaf scorch, fire blight, yellows diseases, phloem necrosis, mycoplasmas, xylem-limited bacteria (*Xylella fastidiosa*, BLS) and some bacterial blight diseases. Late summer or early fall applications provide disease suppression the following season. Some diseases may require repeated yearly application.

## **SPRINGER™ Systemic Antibiotic**

An ArborSystems Direct-Inject Chemical

**Chemical:**  
*Oxytetracycline hydrochloride*

For seasonal suppression of lethal yellows (phytoplasma disease) on palms (Florida only).

### **ACTIVE INGREDIENT:**

Oxytetracycline hydrochloride ..... 4.3%

**OTHER INGREDIENTS** ..... 95.7%

**Total** ..... 100.0%

### **PRODUCT INFORMATION**

Springer Systemic Antibiotic is a ready-to-use antibiotic for use on palms. Springer Systemic Antibiotic provides suppression of lethal yellows disease (*phytoplasma disease*) in palms.



**Provides suppression of lethal yellows on palms.**

# Nutriboosters®

## MicroNutrients

**Boost tree health,  
leaf out, green up**

### **Green up fast with Nutriboosters®**

Trees suffering from slow or incomplete leaf-out? Trees looking yellow or tired? Nutriboosters promote leaf health and help trees overcome chlorosis. Watch your trees change from sickly to healthy darker-green in days. Choose the formulation that works best for your trees' conditions.

### **GreenTree Pro Nutriboosters® 0-15-10**

#### **Contains:**

15% Phosphorus, 10% Potassium, 8% Iron

#### **Indications:**

GreenTree Pro helps stressed, weak, and yellowing trees regain health and vitality. One application will help trees quickly green up, leaf out, and recover from drought, construction, or transplant stress. Results are often seen within two weeks, especially when treatments are made in the late spring or early summer.

#### **GreenTree Pro is a unique formulation of three compounds which boost tree vigor.**

- ▶ Phosphorus encourages stem elongation, root growth, and vegetative growth.
- ▶ Potassium promotes overall tree health.
- ▶ Iron promotes the development of darker green, healthy leaves, relieving the symptoms of chlorosis.

**Nutriboosters available in 120 ml Quick-Connect Chemical Packs and One-Quart Macro-Infusion Bottles (PK Pro Nutriboosters 0-36-26 also available in 1000 ml chemical pack).**

### **PK Pro® Nutriboosters 0-36-23**

#### **Contains:**

36% Phosphorus and 23% Potassium

#### **Indications:**

PK Pro is used to counter the effects of stress due to drought, transplanting, or construction damage.

- ▶ Phosphorus encourages stem elongation and is essential for root growth, vegetative growth, and fruit set.
- ▶ Potassium promotes overall tree health.

### **Iron Nutriboosters**

#### **Contains:**

12.5% Iron

#### **Indications:**

Relieves symptoms of iron chlorosis, the general yellowing of foliage. Helps leaves turn green which improves tree health.

### **Iron/Manganese Nutriboosters**

#### **Contains:**

8.5% Iron and 3.5% Manganese

#### **Indications:**

Relieves symptoms of iron and manganese deficiency in trees.

### **Manganese Nutriboosters**

#### **Contains:**

5% Manganese

#### **Indications:**

Relieves symptoms of manganese deficiency in trees.



**Macro-Infusion  
Emamectin Benzoate  
in one-quart bottles**

**Insecticide-  
Miticide**

**TreeMec® Inject**

An ArborSystems Macro-Infusion Chemical

**Chemical: Emamectin Benzoate**

TreeMec® Inject is for the control of mature and immature insect and mite pests of deciduous and coniferous trees and palms including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards and forested sites in private, municipal, state, tribal and national areas. TreeMec Inject contains the active ingredient Emamectin Benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pests for up to two years.

TreeMec Inject is designed to be used with tree injection devices that meet the label and dose requirements for the control of listed pests of trees. Follow manufacturer's directions for equipment use.

**ACTIVE INGREDIENT:**

Emamectin Benzoate  
(CAS No. 155569-91-8) ..... 4%

**OTHER INGREDIENTS** ..... 96%

**Total** ..... 100%

Contains 0.36 lb Emamectin per gallon



**Formulated &  
Bottled in USA**

**Pests Controlled:**

Seed and Cone

- Cone Beetle<sup>1</sup> (Conophthora spp.)
- Pine Cone Seed Bug (suppression of Leptoglossus and Tetyra spp. in the year of treatment)
- Pine Coneworm (Dioryctria spp.)

Bud and Leaf

- Aphid<sup>1</sup>
- Bagworm\
- Conifer Mites<sup>1</sup>
- Fall Webworm
- Gypsy Moth
- Honeylocust Plant Bug
- Japanese Beetle
- Leafminers (such as Coleoptera, Hymenoptera Lepidoptera)
- Mimosa Webworm
- Oak Worm
- Pine Needle Scale
- Red Palm Mite
- Sawfly (such as Elm, Pine)
- Tussock Moth

Shoot, Stem Trunk and Branch

- Flatheaded Borers (such as adult and larvae of Bronze Birch Borer<sup>1</sup>, Emerald Ash Borer and Two-lined Chestnut Borer<sup>1</sup>)
- Tent Caterpillars (such as Eastern, Forest, Pacific and Western)
- Western Spruce Budworm
- Winter Moth
- Clearwing Borers (such as Ash and Sequoia Pine Pitch Tube Moth)
- Ambrosia Beetles<sup>1</sup>
- Cynipid Gall Wasps<sup>1</sup>
- Pinewood Nematode
- Roundheaded Borers (excluding Asian Longhorn Beetles)
- Scolytids (Bark Beetles) Ips Engraver Beetles, Mountain Pine Beetle, Southern Pine Beetle, Spruce Beetle, Western Pine Beetle

<sup>1</sup>Not registered for use in California

**For pesticide and  
fertilizer applications  
under the soil surface.**

# **EZJECT<sup>®</sup>** **SOIL INJECTOR™**

***EZ-Ject: An ArborSystems Partner***

## **EZ-Ject® Soil Injector**

Urban foresters, arborists and tree care professionals now have an easily transportable way for tree and shrub pesticide and fertilizer applications under the soil surface.

The EZ-Ject Soil Injector has a semi-transparent container for viewing product usage, adjustable injection depth from two to eight inches and a replaceable hardened steel tip.



**8.5 LBS.**



## **Soil Injector Features**

- Pumping systems delivers ½ oz. (15 ml) per stroke (¼ oz. (7.5 ml) per stroke option available)
- Narrow handle and profile for dense underbrush
- Adjustable foot plate and probe depth control
- One-gallon chemical tank
- Wide-mouth screw cap for filling



# EZJECT<sup>®</sup> HERBICIDE LANCE

**EZ-Ject: An ArborSystems Partner**

## EZ-Ject<sup>®</sup> Herbicide System

Foresters, utility managers, and agricultural producers now have an efficient, effective, economical way to kill unwanted trees, stumps, and invasive woody plants.

With one simple movement, the spring-loaded EZ-Ject Herbicide Lance injects a herbicide shell into the base of a tree, stump, or brush and into the cambium layer. The systemic herbicide is absorbed by the tree, effectively killing roots, trunk, and foliage. Dead tree, stump, or vegetation can be removed or left to decompose naturally.

### Many diverse uses

- ▶ Control non-compatible species
- ▶ Thin hardwoods
- ▶ Manage juvenile spacing
- ▶ Kill stumps

### Control trees in many situations

- ▶ Buffer zones
- ▶ Roadsides
- ▶ Watersheds
- ▶ CPC land
- ▶ Drainage areas
- ▶ Prairies
- ▶ Woodlots
- ▶ Utility right-of-ways

### USE YEAR-ROUND

Tree may be injected at any time of the year except when wood is frozen.

**Effectively control  
unwanted trees**



Gravity-fed, spring loaded head injects shells ▶ through bark with minimal operator effort.



◀ Load up to 400 herbicide shells through the screw-off end cap.

## ATV and behind seat friendly!

The **standard EZ-Ject Lance** is 63.5" (161 cm) long and has a capacity of 400 shells, 100 in each of four chambers. Fully loaded, the EZ-Ject Lance weighs less than 10 pounds.

The **short EZ-Ject Lance** is 41.25" (104 cm) long and has a capacity of 228 shells, 57 in each of 4 chambers.

The **Bull Dog EZ-Ject Lance** is 25.25" (64 cm) long & has a capacity of 100 shells, 25 in each of 4 chambers.

EZ-Ject<sup>®</sup> Herbicide Lance is protected by U.S. Patent #5,596,837 and Canadian Patent #2039447

## Diamondback<sup>®</sup> Herbicide Shells

### Contains Glyphosate

Weedy brush, trees and vines controlled by this product are listed on the product label.

#### ACTIVE INGREDIENT:

Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt (CAS No. 38641-94-0) .....	83.5%
<b>OTHER INGREDIENTS</b> .....	16.5%
<b>Total</b> .....	100.0%

EPA Reg. No.: 83220-1

## Copperhead<sup>®</sup> Herbicide Shells

### Contains Imazapyr

The species of woody brush, trees and vines controlled by this product are listed on the product label.

#### ACTIVE INGREDIENT:

Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid)* .....	83.5%
<b>OTHER INGREDIENTS</b> .....	16.5%
<b>Total</b> .....	100.0%

\* Equivalent to 0.008 ounces (0.23 grams) per shell of Isopropylamine salt of Imazapyr or 0.006 ounces (0.18 grams) of Imazapyr Acid.

EPA Reg. No.: 83220-2

# Wedgle® Direct-Inject™ TREE INJECTION SYSTEM

Our advanced technology for tree treatment allows you to

**INCREASE THE  
NUMBER OF TREES  
YOU TREAT  
IN A DAY!**

- ◆ No drilling damage
- ◆ No mixing at job sites
- ◆ No guarding or return trips
- ◆ No waiting for uptake
- ◆ Treats most trees in five minutes or less!
- ◆ Successful and most profitable add-on service



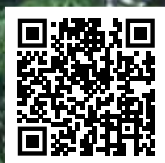
Multiple injection tips designed for all types of trees, conifers and palms

Insecticides • Fungicides • PGR • Antibiotics • MicroNutrients



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enhancements, offers and events.

**ArborSystems®**  
Tree Injection Solutions

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