

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

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Kim Davis Consultant/Agent ArborSystems, Inc. c/o RegWest Company, LLC 30856 Rocky Road Greeley, CO 80631-9375

JAN 15 2009

Subject: Label Notification(s) for Pesticide Registration Notice 98-10 Changes in Packaging and Related Labeling Statements Changes to Directions for Use

Other Revisions

Dear Ms. Davis:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated November 26, 2008 for:

EPA Registration 69117-3

Shepherd Fungicide

The Registration Division (RD) has conducted a review of this request for applicability under PR Notice 98-10 and finds that the label changes requested falls within the scope of PR Notice 98-10. The label has been date-stamped "Notification" and will be placed in our records.

If you have any questions, please contact me directly at 703-305-6249 or Nicole Williams of my staff at 703-308-5551.

Sincerely,

Linda Arrington

Notifications & Minor Formulations Team Leader Registration Division (7505P)

Office of Pesticide Programs

Please read instructions on	reverse before comple	ting form.			Form Ap	proved. OMB No. 2070-0060.
United States					Registration	OPP Identifier Number
Environmental Protection A			y		_	
	0 Pennsylvania A				Amendment	Notification
Washington, DC 20460-0001					Other	
	Α	pplication fo	or Pesticide –	Section	n i	
Company/Product Numb EPA	er A Reg. No. 69117-	3	2. EPA Proc	duct Manag Iry L. Wa		roposed Classification
4. Company/ Product (Nam			PM#	21		None
5. Name and Address of A			6 Eynad		iew In accord	lance with FIFRA Section
ArborSystems, Inc.						dentical in composition and
c/o RegWest Compa	ny, LLC		labeling to:			
30856 Rocky Road					NOTIFI	CATION
Greeley, CO 80631-9			EPA Reg. I	EPA Reg. No.		
☐ ch	eck if this is a new add			Product NameJAN 1 5 2009		
		S	Section – II			· · · · · · · · · · · · · · · · · · ·
Amendment - Explain	below.		☐ Final pr	inted labels	in response to Ager	ncy letter dated
Resubmission in respo	nse to Agency letter d	ated	🔲 "Me Too	o" Application	on.	
Notification - Explain b	elow.		Other -	Explain be	low.	
Explanation: Use add	ditional page(s) if nece	ssary. (For Section	I and Section II.)			
	Submit	lahel revision	notification per	PR Notic	ce 98-10.	
			i for an illustrati			
(re	visions related p					ents).
Ī	•	-	_	-		Ť
						er changes have been made to
						1001 to willfully make any false I 40 CFR § 152.46 this product
may be in violation of FIFRA						
		S	ection – III			
1. Material This Product V			14.1 5 1 1 1 5 1			
Child Resistant Packaging	Unit Packaging		Water Soluble Pack	aging	2. Type of (Container
Yes*	Yes		☐ Yes		■ Plastic	1
■ No	■ No		No No		Glass	
*Certification must	If "Yes" Unit Packaging Wt.	No. Per	If "Yes"	No. Per Contair	I B Danar	
be submitted	Onit Packaging vvt	Container	Packaging Wt.	Contain	Other (
3. Location of Net Contents	Information	4. Size(s) Retail			5. Location of Lal	
 			oz. (120 ml) and 2 fl. oz. (1000 ml	,	On Label	
Label	Container	1 41. 4	vz. (1000 IIII	,	On Labeling	Accompanying Product
6. Manner in Which Label is	s Affixed to Product		nograph	Stend		
S. HIGHIOT IS FERIOUS ECOCIE		_	• •			4.4.4
Paper glued Other <u>Self-adhesive booklet</u> Section - IV						
1. Contact Point (Comp	lata itame disastir be			ho contact	ad If nanceau 4-	process this application
Name	rete Henris Uni BULLY DB	Title	ion oi maividual to	ue contact	Telephone No. (In	
(970) 353-0611						
Kim Davis, CC, Al	Kim Davis, CC, APC, Manager Consultant/Agent kim@regwest.com					
Certification I certify that the statements I have made on this form and all attachments thereto are true,						
						(Stamped)
accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.						
2. Signature 3. Title						
			-			
			Consultant/Agent			
4. Typed Name		5. Dat	e			
Kim Davis, CO	Kim Davis, CC, APC, Manager November 26, 2008					
EPA Form 8570-1 (Rev. 8-9		e obsolete				

November 26, 2008

Ms. Linda Arrington
Document Processing Desk – NOTIF
Office of Pesticide Programs – 7504P
U.S. Environmental Protection Agency
2777 South Crystal Drive
One Potomac Yard, Room S-4900
Arlington, VA 22202

Dear Ms. Arrington:

Subject: ArborSystems, Inc.

Shepherd® Fungicide EPA Reg. No. 69117-3

On behalf of *ArborSystems, Inc.*, RegWest Company, LLC is submitting the attached materials as notification of a label revision for subject product. RegWest will act as sole agent in this endeavor.

Attached are the following:

- 1. Application for Pesticide: Other (Notification)
- 2. One Reference Label (illustrating the revisions)
- 3. Two **New Labels** (incorporating the revisions)
- 4. Two sets of market labels

We are making several revisions to the labeling, primarily due to a change in packaging concepts. The previous packaging/container concepts were:

For the 4 fl oz (120 ml) size: a box containing a chemical bottle (with reduced labeling) and an insert For the 1 qt 2 fl oz (1000 ml) size: a box containing a pouch.

The attached labeling reflects the current container concepts which are:

For the 4 fl oz (120 ml) size: a collapsible pouch sealed in a closed plastic canister (i.e., the "pack"), which is then put in an outer box

For the 1 qt 2 fl oz (1000 ml) size: a collapsible pouch in a sealed box (i.e., the "pack") which is then put in an outer box.

The 4 fl oz pack now has a booklet (instead of an insert) affixed to the canister and an outer box label (with reduced labeling). When used to inject chemical into trees, the pack is removed from the outer box and installed onto the delivery device. The 1 qt 2 fl oz pack now has a full label on the box (the pouch cannot be removed from the box without destroying the box) and an outer box label (with reduced labeling). The box has a connective tube. When used to inject chemical into trees, the pack is removed from the outer box and the tube is connected to the delivery device.

Please refer to the *Reference Label* for a complete illustration of all label revisions.

Please contact me at (970) 353-0611 or kim@regwest.com if you require additional information or have any questions.

Regards,

RegWest Company, LLC

Kim Davis, CC, APC, Manager

Consultant/Agent

Attachments

30856 Rocky Road Greeley CO 80631-9375 970-352-0611 970-359-0613 Fax Kim@regwest.com

cc: ASI - Doolittle, C.

SHEPHERD® Fungicide

(Affixed Booklet - Front Panel)

SHEPHERD® Fungicide An ArborSystems™ Direct-Inject™ Chemical

For systemic fungicide suppression of selected diseases in trees

Active Ingredient:

Propiconazole (CAS No. 60207-90-1)	14.3%
Other Ingredients	85.7%
Total	100.0%
Contains 0.5 oz. (14 grams) active ingredient per 4 fl. oz. (120 ml)	pack.

Net Contents: 4 fl. oz. (120 ml)

Keep Out of Reach of Children WARNING

See inside for additional precautionary statements and complete Directions for Use.

{Affixed Booklet}

SHEPHERD® Fungicide

An ArborSystems™ Direct-Inject™ Chemical
• Easy • No Drilling • Saves Time and Money

For systemic fungicide suppression of selected diseases in trees.

For use by professional arborists/applicators.

To be used only with the ArborSystems Direct-Inject Tree Injection System

NOTIFICATION

LIAN 1 5 2009

ArborSystems™

The No-Drill Injection Solution www.ArborSystems.com 800-698-4641 • Fax: 402-339-5011 P.O. Box 34645 • Omaha, NE 68134

Net Contents: 4 fl. oz. (120 ml) EPA Reg. No. 69117-3 • EPA Est. 69117-NE-1

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING: Causes substantial but temporary eye injury. Wear goggles or face shield. Causes skin irritation. Do not get in eyes, on skin or on clothing. Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing vapor. Wear rubber or neoprene gloves when handling this product. Thoroughly wash with soap and water after handling. Remove and wash contaminated clothing before reuse.

First Aid

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 rinsing		
	eye.		
	Call a poison control center or doctor for treatment advice.		
If on Skin	Take off contaminated clothing.		
or Clothing	Immediately rinse skin with plenty of water for 15-20 minutes.		
	Call a poison control center or doctor for treatment advice.		
If Swallowed	 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 the poison control center or doctor.		
	Do not give anything by mouth 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-to-mouth, if possible.		
	Call a poison control center or doctor for further treatment advice.		
Have the produ	ct container or label with you when calling a poison control center or doctor, or going for		
treatment.			
	cian: If ingested, lavage stomach to avoid aspiration. A slurry of activated charcoal in		
water can be lef	ft in the stomach. Give a saline laxative and supportive therapy.		

(Note: The First Aid statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.)

Environmental Hazards

This product is toxic to fish. 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 waters.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

For use by professional arborists/applicators.

General Information ArborSystems™ Direct-Inject™ Tree Injection System

The ArborSystems Direct-Inject Tree Injection System injects pesticides into a tree with minimal wounding. The system will inject chemicals into the area of bark separation where the chemical can be actively transferred to other parts of the tree. Injections made during the spring or summer will be more successful than waiting until the fall. Specifically, each tree needs to be inspected. The bark needs to be pliable and that depends upon local weather conditions.

It's right for the trees. It's right for the company (increase profits). Minimizes wounding, promotes long-term tree vigor. Protects tree vascular system. Allows for annual retreatment. Complete treatment in 3 minutes per tree. No waiting, drilling, spraying or mixing. Fast, easy and tree-friendly.

Shepherd Fungicide is a systemic fungicide for use as an injection for prevention and treatment of (1) Oak wilt (*Ceratocysds fagacearum*) of Oak (*Quercus* spp.), (2) Dutch Elm disease (*Ceratocystis ulmi*) of Elms (*Ulmus* spp.), (3) Sycamore anthracnose (*Apiognomonia veneta*), and (4) leaf diseases (i.e., *Venturia inaequalis, Gymnosporangium juniperi-virginianae, Pucciniastrum goeppertianum*, etc.) of Crabapple (*Malus* spp.).

These fungi infect the vascular system and cause plugging throughout the tree. It is recommended that Shepherd Fungicide be administered by trained arborists or others trained in injection techniques and in the identification of Oak wilt and Dutch Elm disease. When possible, Shepherd Fungicide should be injected into flare roots to ensure even distribution throughout the vascular system of the tree.

Important: Oak trees exhibiting less than 20% crown loss from Oak wilt will have the best chance of responding to treatment with Shepherd Fungicide. Preventive application is more effective than therapeutic treatment in trees showing disease symptoms. Trees in advanced stages of disease development may not respond to treatment.

Trees exhibiting specific symptoms or symptomless trees immediately adjacent to a diseased tree should be considered infected. Symptomless trees separated by a primary plow line from diseased trees may be at less risk of infection. Do not use on sick plants or plants weakened by extreme environmental conditions such as heat, flooding, cold, etc.

Indications	Dosage
Treatment of Oak wilt disease for an uninfected Live Oak (not including Red Oak).	3-5 ml per injection site*
Treatment of Dutch elm disease for an uninfected Elm or Oak other than Live Oak.	5-10 ml per injection site*
Treatment of leaf diseases in Crabapple. Do not use fruit from treated trees for food or feed purposes.	1-2 ml per injection site*
Treatment of Anthracnose in Sycamore.	

^{*}The number of injection sites is based on 1 injection for every 3" to 5" of trunk circumference.

Retreatment: Record the level of disease in each tree prior to initial Shepherd Fungicide injection. Consider preventative applications 12 months after the initial injection. Reevaluate the disease level in all trees, particularly those in high disease risk areas or high-value trees, for possible retreatment 12 months after each treatment and/or on an annual basis.

Notes: (1) Accurate diagnosis of Oak wilt and Dutch Elm disease is important, since Shepherd Fungicide provides only suppression of the diseases listed on this label. (2) Shepherd Fungicide will be most effective when used in conjunction with other cultural practices recommended for management of Oak wilt and Dutch Elm disease (removal of dead elm trees, pruning of diseased tree limbs and branches, control of bark beetles, etc.). (3) If difficulty in keeping all of the chemical in per site is encountered, mark this site and move on to the others. When finished moving around to the trees, return to the marked tree and add the required amount of chemical needed.

How to Use ArborSystems Direct-Inject Chemicals with ArborSystems Direct-Inject Tree Injection System

- 1. Use protective eyewear and rubber or neoprene gloves when handling or installing the ArborSystems Direct-Inject Tree Injection System.
- 2. Attach the chemical pack to the Direct-Inject unit.
- 3. Set the delivery volume on the unit.
- 4. Determine the thickness of the bark. Insert the Wedgle® Tip into the fissure of the tree. If the tip penetrates more than the length of a WedgeChek™ the injection will be made in the fissure. If the tip penetrates less than the length of a WedgeChek the injection will be made through the tight bark of the tree. On thin-barked trees you may find it necessary to insert the WedgeChek in only one-half as far as normal.
- 5. Insert the WedgeChek Punch into the tree. Remove the punch and squeeze the trigger to remove the bark core. Examine the core to make sure the core that has been removed is approximately the same length as the WedgeChek. Repeat this step while moving around the flare of the tree. Be sure to follow the label directions in this booklet to determine how many injection sites are needed on any given tree. Usually this is approximately 1 injection for every 3" to 5" of trunk circumference. Make WedgeChek insertions around the flare of the tree spacing evenly.
- 6. Place the WedgeChek on the protruding pin on the bottom of the grip, then insert the WedgeChek directly into the punched hole. The barbs on the WedgeChek will secure it in the tree.
- 7. Insert the Wedgle Tip with a straight motion through the WedgeChek. Make sure the hole in the tip passes completely through the WedgeChek. As the tip is pushed through the WedgeChek and the bark, the blunt-edged tip automatically stops when it reaches the wood.
- 8. With a smooth motion, firmly squeeze both handles at the same time. This allows the bark to separate and the chemical to be deposited into the area. The WedgeChek plugs the hole, allowing the chemical to remain in the tree.
- 9. Slowly withdraw the tip and repeat this step while moving around the circumference of the tree.
- 10. Move laterally and make the next injection until the entire tree trunk has been treated. After the tree has taken up the chemical each WedgeChek can either be removed or left in the tree.

Storage and Disposal

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

Pesticide Storage: Store in original container in a cool, dry place. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill or if allowed by State and local authorities, by burning; if burned, stay out of smoke.

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, express or implied, concerning this product.

ArborSystems[™]
The No-Drill Injection Solution
www.ArborSystems.com
800-698-4641 • Fax: 402-339-5011

P.O. Box 34645 • Omaha, NE 68134

Shepherd® Fungicide, Portle® and Wedgle® are registered trademarks of ArborSystems.

ArborSystems™, Direct-Inject™ and WedgeChek™

are trademarks of ArborSystems.

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

Wedgle® Tip is protected by U.S. Patent #5,239,773

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

Portle® Tip is protected by U.S. Patent #7,178,286

[] Denotes alternate/optional language

{ } Denotes language that does not appear on the market label

(Box Label)

SHEPHERD® Fungicide An ArborSystems™ Direct-Inject™ Chemical

For systemic fungicide suppression of selected diseases in trees.

For use by professional arborists/applicators.

To be used only with the ArborSystems Direct Inject Tree Injection System.

Active Ingredient:

Propiconazole (CAS No. 60207-90-1)	14.3%
Other Ingredients	85.7%
Total	100.0%
Contains 0.5 oz. (14 grams) active ingredient per 4 fl. oz. (120 ml)	pack

Keep Out of Reach of Children WARNING

See booklet for additional precautionary statements and complete Directions for Use.

DIRECTIONS FOR USE

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

The ArborSystems Direct-Inject units are designed to be used only with ArborSystems' pre-packed chemicals. Tampering with packs or contents may cause non-warrantied damage to your injection system.

Storage and Disposal

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

Pesticide Storage: Store in original container in a cool, dry place. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill or if allowed by State and local authorities, by burning; if burned, stay out of smoke.

Net Contents: 4 fl. oz. (120 ml)

EPA Reg. No. 69117-3 • EPA Est. 69117-NE-1

ArborSystems[™]

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www.ArborSystems.com
800-698-4641 • Fax: 402-339-5011
P.O. Box 34645 • Omaha, NE 68134

[] Denotes alternate/optional language

{ } Denotes language that does not appear on the market label

{Pack Label}

SHEPHERD[®] Fungicide An ArborSystems™ Direct-Inject™ Chemical

For systemic fungicide suppression of selected diseases in trees.

Active Ingredient:

Propiconazole (CAS No. 60207-90-1)	14.3%
Other Ingredients	85.7%
Total	
Contains 0.5 oz. (14 grams) active ingredient per 4 fl. oz. (120 ml)	pack.
[Contains 4.2 oz. (116.7 g) active ingredient per 1 qt. 2 fl. oz. (100 m	l) pack.]

Keep Out of Reach of Children WARNING

See booklet [box label] for additional precautionary statements and complete Directions for Use.

DIRECTIONS FOR USE

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

The ArborSystems Direct-Inject units are designed to be used only with ArborSystems pre-packed chemicals. Tampering with packs or contents may cause non-warrantied damage to your injection system.

Storage and Disposal

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

Pesticide Storage: Store in original container in a cool, dry place. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill or if allowed by State and local authorities, by burning; if burned, stay out of smoke.

Net Contents: 4 fl. oz. (120 ml)
[Net Contents: 1 qt. 2 fl. oz. (1000 ml)]

EPA Reg. No. 69117-3 • EPA Est. 69117-NE-1

ArborSystems[™]

The No-Drill Injection Solution
www.ArborSystems.com
800-698-4641 • Fax: 402-339-5011
P.O. Box 34645 • Omaha, NE 68134

[] Denotes alternate/optional language

{ } Denotes language that does not appear on the market label

{1 qt. 2 fl oz box label}

SHEPHERD® Fungicide An ArborSystems™ Direct-Inject™ Chemical • Easy • No Drilling • Saves Time and Money

For systemic fungicide suppression of selected diseases in trees.

For use by professional arborists/applicators.

To be used only with the ArborSystems Direct-Inject Tree Injection System.

Active Ingredient:

Propiconazole (CAS No. 60207-90-1)	14.3%
Other Ingredients	<u>85.7%</u>
Total	100.0%
Contains 4.2 oz. (116.7 grams) active ingredient per 1 gt. 2 fl. oz. (1000)) ml) pack.

Keep Out of Reach of Children WARNING

See to the right for additional precautionary statements.

ArborSystems[™]

The No-Drill Injection Solution www.ArborSystems.com 800-698-4641 • Fax: 402-339-5011 P.O. Box 34645 • Omaha, NE 68134

Net Contents: 1 qt 2 fl oz (1000 ml) EPA Reg. No. 69117-3 • EPA Est. 69117-NE-1

PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

WARNING: Causes substantial but temporary eye injury. Wear goggles or face shield. Causes skin irritation. Do not get in eyes, on skin or on clothing. Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing vapor. Wear rubber or neoprene gloves when handling this product. Thoroughly wash with soap and water after handling. Remove and wash contaminated clothing before reuse.

First Aid

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 rinsing eye. 		
	Call a poison control center or doctor for treatment advice.		
If on Skin	Take off contaminated clothing.		
or Clothing	Immediately rinse skin with plenty of water for 15-20 minutes.		
	Call a poison control center or doctor for treatment advice.		
If Swallowed	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 the poison control center or doctor.		
	Do not give anything by mouth 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-to-mouth, if possible. 		
	Call a poison control center or doctor for further treatment advice.		
1	ct container or label with you when calling a poison control center or doctor, or going for		
treatment.			
Note to Physic	cian: If ingested, lavage stomach to avoid aspiration. A slurry of activated charcoal in		

water can be left in the stomach. Give a saline laxative and supportive therapy.

(Note: The First Aid statements' grid format will be used if market label space permits; otherwise a paragraph format will be used.)

Environmental Hazards

This product is toxic to fish. 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 waters.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

General Information ArborSystems™ Direct-Inject™ Tree Injection System

The ArborSystems Direct-Inject Tree Injection System injects pesticides into a tree with minimal wounding. The system will inject chemicals into the area of bark separation where the chemical can be actively transferred to other parts of the tree. Injections made during the spring or summer will be more successful than waiting until the fall. Specifically, each tree needs to be inspected. The bark needs to be pliable and that depends upon local weather conditions.

It's right for the trees. It's right for the company (increase profits). Minimizes wounding, promotes long-term tree vigor. Protects tree vascular system. Allows for annual retreatment. Complete treatment in 3 minutes per tree. No waiting, drilling, spraying, mixing or posting. Fast, easy and tree-friendly.

Shepherd Fungicide is a systemic fungicide for use as an injection for prevention and treatment of (1) Oak wilt (Ceratocysts fagacearum) of Oak (Quercus spp.), (2) Dutch Elm disease (Ceratocystis ulmi) of Elms

(*Ulmus* spp.), (3) Sycamore anthracnose (*Apiognomonia veneta*), and (4) leaf diseases (i.e., *Venturia inaequalis, Gymnosporangium juniperi-virginianae, Pucciniastrum goeppertianum*, etc.) of Crabapple (*Malus* spp.).

These fungi infect the vascular system and cause plugging throughout the tree. It is recommended that Shepherd Fungicide be administered by trained arborists or others trained in injection techniques and in the identification of Oak wilt and Dutch Elm disease. When possible, Shepherd Fungicide should be injected into flare roots to ensure even distribution throughout the vascular system of the tree.

Important: Oak trees exhibiting less than 20% crown loss from Oak wilt will have the best chance of responding to treatment with Shepherd Fungicide. Preventive application is more effective than therapeutic treatment in trees showing disease symptoms. Trees in advanced stages of disease development may not respond to treatment.

Trees exhibiting specific symptoms or symptomless trees immediately adjacent to a diseased tree should be considered infected. Symptomless trees separated by a primary plow line from diseased trees may be at less risk of infection. Do not use on sick plants or plants weakened by extreme environmental conditions such as heat, flooding, cold, etc.

Indications	Dosage
Treatment of Oak wilt disease for an uninfected Live Oak (not including Red Oak).	3-5 ml per injection site*
Treatment of Dutch elm disease for an uninfected Elm or Oak other than Live Oak.	5-10 ml per injection site*
Treatment of leaf diseases in Crabapple. Do not use fruit from treated trees for food or feed purposes.	1-2 ml per injection site*
Treatment of Anthracnose in Sycamore.]

^{*}The number of injection sites is based on 1 injection for every 3" to 5" of trunk circumference.

Retreatment: Record the level of disease in each tree prior to initial Shepherd Fungicide injection. Consider preventative applications 12 months after the initial injection. Reevaluate the disease level in all trees, particularly those in high disease risk areas or high-value trees, for possible retreatment 12 months after each treatment and/or on an annual basis.

Notes: (1) Accurate diagnosis of Oak wilt and Dutch Elm disease is important, since Shepherd Fungicide provides only suppression of the diseases listed on this label. (2) Shepherd Fungicide will be most effective when used in conjunction with other cultural practices recommended for management of Oak wilt and Dutch Elm disease (removal of dead elm trees, pruning of diseased tree limbs and branches, control of bark beetles, etc.). (3) If difficulty in keeping all of the chemical in per site is encountered, mark this site and move on to the others. When finished moving around to the trees, return to the marked tree and add the required amount of chemical needed.

How to Use ArborSystems Direct-Inject Chemicals with ArborSystems Direct-Inject Tree Injection System

- 1. Use protective eyewear and rubber or neoprene gloves when handling or installing the ArborSystems Direct-Inject Tree Injection System.
- 2. Attach the chemical pack to the Direct-Inject unit.
- 3. Set the delivery volume on the unit.
- 4. Determine the thickness of the bark. Insert the Wedgle® Tip into the fissure of the tree. If the tip penetrates more than the length of a WedgeChek™ the injection will be made in the fissure. If the tip penetrates less than the length of a WedgeChek the injection will be made through the tight bark of the tree. On thin-barked trees you may find it necessary to insert the WedgeChek in only one-half as far as normal.
- 5. Insert the WedgeChek Punch into the tree. Remove the punch and squeeze the trigger to remove the bark core. Examine the core to make sure the core that has been removed is approximately the same length as the WedgeChek. Repeat this step while moving around the flare of the tree. Be sure to follow the label directions on this label to determine how many injection sites are needed on any given tree. Usually this is approximately 1 injection for every 3" to 5" of trunk circumference. Make WedgeChek insertions around the flare of the tree, spacing evenly.
- 6. Place the WedgeChek on the protruding pin on the bottom of the grip, then insert the WedgeChek directly into the punched hole. The barbs on the WedgeChek will secure it in the tree.
- 7. Insert the Wedgle Tip with a straight motion through the WedgeChek. Make sure the hole in the tip passes completely through the WedgeChek. As the tip is pushed through the WedgeChek and the bark, the blunt-edged tip automatically stops when it reaches the wood.
- 8. With a smooth motion, firmly squeeze both handles at the same time. This allows the bark to separate and the chemical to be deposited into the area. The WedgeChek plugs the hole, allowing the chemical to remain in the tree.
- 9. Slowly withdraw the tip and repeat this step while moving around the circumference of the tree.
- 10. Move laterally and make the next injection until the entire tree trunk has been treated. After the tree has taken up the chemical each WedgeChek can either be removed or left in the tree.

Storage and Disposal

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

Pesticide Storage: Store in original container in a cool, dry place. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Completely empty pack into application equipment, then dispose of empty pack in a sanitary landfill or if allowed by State and local authorities, by burning; if burned, stay out of smoke.

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, express or implied, concerning this product.

ArborSystemsTM
The No-Drill Injection Solution
www.ArborSystems.com
800-698-4641 • Fax: 402-339-5011

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P.O. Box 34645 • Omaha, NE 68134

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

Wedgle® Tip is protected by U.S. Patent #5,239,773

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

Portle® Tip is protected by U.S. Patent #7,178,286

[] Denotes alternate/optional language

{ } Denotes language that does not appear on the market label

NOTIFICATION JAN 1 5 2009