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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:

69117-3

Date of Issuance:

FEB 26 1999

Term of Issuance:

Conditional

Name of Pesticide Product:

Shepherd Fungicide

NOTICE OF PESTICIDE:
 x Registration
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Arbor Systems LLC
c/o RegWest Company
P.O. Box 2220
Greeley, Colorado 80632-2220

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Change the word "apple" to "crabapple" on page 2, under item "7."
2. In the specific directions for use on crabapples, add "Do not use fruit from treated trees for food or feed purposes."
2. Make the following labeling change before you release the product for shipment: Add the phrase "EPA Registration No. 69117-3".
3. Submit a copy of the final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Signature of Approving Official:

Mary L. Walker

Date:

FEB 26 1999

2044

SHEPHERD™ FUNGICIDE

For Systemic Fungicide Suppression of Selected Diseases in Trees

ACTIVE INGREDIENT:

Propiconazole (CAS No. 60207-90-1)	14.3%
INERT INGREDIENTS	85.7%
Total	100.0%

Contains 14 grams (0.5 oz.) active ingredient
per 120 ml (4 oz.) bottle

**Keep Out of Reach of Children
WARNING**

See below for additional precautionary statements

Net Contents: 4 oz. (120 ml)

EPA Reg. No. 69117-G EPA Est. _____

**ACCEPTED
with COMMENTS
In EPA Letter Dated:
FEB 26 1999**

[Sold by]

Arbor Systems, LLC

P.O. Box 34645
Omaha, NE 68134

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
69117-3**

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. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

Statement of Practical Treatment

If in Eyes: Immediately flush with a steady gentle stream of water. Get medical attention. **If on Skin:** Wash thoroughly with soap and water. Get medical attention if irritation occurs. **If Swallowed:** Do not induce vomiting. Drink plenty of water and contact a physician, hospital or local poison control center. **If Inhaled:** Move person to fresh air. **Note to Physician:** 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.

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. For assistance, contact ArborSystems at 403-339-4459.

DIRECTIONS FOR USE

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

Storage and Disposal

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

Storage: Store in a cool, dry place away from heat or open flame. **Disposal:** Do not reuse empty container; wrap and put in trash.

GENERAL INFORMATION

ArborSystems Injection System using the Patented Wedgle™ Tip and Patented WedgeChek™

The ArborSystems injection system injects pesticides or micronutrients 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. Spring through late summer is the ideal time for injection. Specifically, each tree needs to be inspected. The bark needs to be pliable and that depends upon local weather conditions.

Injections made during the spring or summer will be more successful than waiting until the fall.

Shepherd™ 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™ 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™ 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 by Shepherd™. 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 of 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 nor plants weakened by extreme environmental conditions such as heat, flooding, cold, etc.

How to Use the ArborSystems Injection System

1. Use protective eyewear and rubber or neoprene gloves when handling or installing the ArborSystems injection system.
2. Remove the small tab on top of the bottle and attach the bottle of chemical to the injector gun.
3. Attach the Wedgle™ Tip to the injector gun. Make sure the small hole in the tip is pointing straight up. Set the delivery volume on the syringe to 1 ml.
4. Determine the thickness of the bark. Insert the Wedgle™ Tip into the fissure or valley 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 outer bark of the tree.
5. Insert the WedgeChek™ punch into the tree. Rotate the punch to separate the core from the tree bark and remove the punch from the tree. Squeeze the trigger to remove the bark core and make sure the removed core is as long as the WedgeChek™.
6. Put the WedgeChek™ on the Wedgle™ Tip.
7. Using a straight motion insert the Wedgle™ into the tree until it stops against the wood. This will usually be about ½" on Elms, shorter on apple, oak and sycamore trees. As the tip is pushed into the tree, the Wedgle™ cuts through the WedgeChek™ and the blunt-edged tip automatically stops when it reaches the wood.
8. Using a smooth motion firmly squeeze both handles at the same time. This motion 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. Be sure to follow the label directions to determine how many injection sites are needed on any given tree. Usually this is approximately 1 injection for every 3 to 4 inches of circumference.
10. Move laterally and make the next injection until the entire tree trunk has been treated. The WedgeCheks™ may be left in the tree and used to inject the tree the following year.

Indications	Dosage	Illustrations of Injections Will Appear Here
Treatment of Oak wilt disease for an uninfected live oak (not including Red Oak)	3-5 ml per injection site spaced every 3-4" around the tree measured at DBH	
Treatment of Dutch elm disease for an uninfected elm or Oak other than live oak	5-10 ml per injection site spaced every 3-4" around the tree measured at DBH	
Treatment of Leaf diseases in crabapple	3-5 ml per injection site spaced every 3-4" around the tree measured at DBH	
Treatment of Anthracnose in Sycamore	3-5 ml per injection site spaced every 3-4" around the tree measured at DBH	

Retreatment

Record the level of disease in each tree prior to initial Shepherd™ injection. Preventative applications should be considered 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™ provides only suppression of the diseases listed on this label.
2. Shepherd™ 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, inject 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.

NOTICE OF WARRANTY

ArborSystems, LLC warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Plant injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials or the manner of use or application, all of which are beyond the control of ArborSystems. In no case shall ArborSystems be liable for consequential, special or indirect damages resulting from the use or handling this product. The buyer shall assume all such risks. Except as expressly provided herein, ArborSystems makes no warranties, guarantees or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular purpose, or use or eligibility of the product for any particular trade usage. Buyer's or user's exclusive remedy, and ArborSystems' total liability, shall be for damages not exceeding the cost of the product.

For assistance contact

Arbor Systems, LLC

P.O. Box 34645 Omaha, NE 68134

Toll-Free 1-800-698-4641 Phone (402) 339-4459 FAX (402) 339-5011

www.arborsystemsllc.com

Shepherd™, Wedgle™ Tip and WedgeChek™ are registered trademarks of ArborSystems, LLC

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

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