APPLICATION EQUIPMENT

A variety of equipment can be used for basal bark applications. High-pressure positive displacement jet stream equipment for treating tall tree foliage or deep root injection is eliminated. Low-pressure equipment is operating below 50 PSI and even small hand held 1 to 3 gallon pump up or backpack type sprayers can be used.

PRODUCT CONSUMED

Amount of product used with the "basal bark application" is far less than foliar treatment and less than deep root injection. Treatment for a 3-inch caliper tree (at 4 feet above ground surface) will require approximately 500 MLs. of product or 1 pint of pesticide/surfactant solution applied uniformly to the circumference to 9 feet above the soil line.
**PENTRA-BARK™** is a unique patent applied for bark periderm penetrating surfactant unlike any other surfactant today. **PENTRA-BARK™** has been specifically designed for use on herbaceous woody plant surfaces with AGRI-FOS® or RELIANT® fungicides for disease control.

**PENTRA-BARK™** is revolutionary in that it enables the fungicides AGRI-FOS® or RELIANT® to be applied to a small limited area of plant bark periderm and effectively control Phytophthora ssp., Pythium ssp. and Phytophthora ramorum in woody plants.

**PENTRA-BARK™** is unique that when used in combination with AGRI-FOS® or RELIANT® in a “Basal Bark Application”, the fungicidal properties are translocated through the bark cortical protective layer into the phelloderm. This enables subsequent transport throughout the vascular system of the plant.

**PENTRA-BARK™'s** new technology facilitates “non invasive treatment” of trees and woody plants for systemic disease control. Standard treatment methods utilizing labor intensive drilling and injecting the root flare is eliminated as well as deep root injection of saturating the soil surrounding plant roots with fungicides. The liability of chemical trespass with foliar application is also eliminated.

### RESEARCH BASED PRODUCT

Research initially directed at control of Sudden Oak Death, Phytophthora ramorum lead to the discovery of **PENTRA-BARK™**. The devastating speed and development of SODs mandated a better application alternative had to be developed if trees were to be saved. The concept of Basal Bark Application was identified as the superior, faster, reduced chemical trespass, reduced labor, non-invasive, non-injurious method of application. A unique blend of bark penetrating translocation aids, specific to periderm, bark were tried and tested which resulted in the creation of **PENTRA-BARK™ Penetrating Surfactant**.

### APPLICATION METHOD

How is **PENTRA-BARK™** used on woody plant material? Currently the only fungicide tested and approved with **PENTRA-BARK™** for disease control is AGRI-FOS® and RELIANT® fungicides. A concentrated solution consisting of 50% water and 50% AGRI-FOS® is created and then **PENTRA-BARK™** is added to the solution at the rate of 2.5% by volume of solution and is then “basally spray applied” at low pressure to trees from 6 to 9 feet above the root flair. Apply downward to ground level to point of saturation run off to the circumference of the tree.

Thorough uniform coverage of tree bark circumference is required.

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University of California, Berkeley
Sod Injection vs. Basal Bark