MICRO-INFUSION DOSAGE

General Information

APPLICATION TO ORNAMENTALS: ACE-jet is for use on trees & landscape ornamentals including conifers, Christmas tree & deciduous tree farms and plantations. ACE-jet is an infusible insecticide formulated to translocate in the plant vascular system from the microinjection site(s). To assure optimum effectiveness, this product must be placed into the active sapwood.

DIRECTIONS

ACE-jet is designed for use only with the Arborjet Tree Injection Systems specified on this label. The specified dosages and number of application sites are based on tree diameter. Measure the tree diameter at chest height (54” from ground) in inches to find the Diameter at Breast Height (DBH). If measuring circumference, divide this number by three to determine Diameter at Breast Height (DBH). Best uptake is in trees in full leaf. Conditions that favor transpiration (i.e., sunny, breezy, low humidity) are optimal for injection uptake. Treat conifers in the early morning during hot, dry periods for optimum uptake. Micro-Injection of trees stressed by drought or extreme heat may result in poor uptake or foliar injury. Irrigate trees prior to treatment for optimal product uptake.

ARBORJET MICRO-INJECTION AND MICRO-INFUSION PROCEDURES

In choosing between Micro-Injection and Micro-Infusion procedures, it is important to consider treatment needs. Micro-Injection applications are designed for shorter-term activity against pests as compared to Micro-Infusion. Micro-Infusion dosages are designed to deliver higher volumes to compensate for the drop in concentration of A.I. reported in large trees and to extend the period of product activity against pests as compared to a Micro-Injection application. For optimum distribution, inject into the sapwood tissues at the base of the tree. Work around the tree, injecting no closer than6.0 inches apart.

Basic Arborjet VIPER

Procedure: Drill through the bark then 5/8” to 1-5/8” (in hardwoods) or 1-5/8” to 2” (in conifers) into the sapwood using the appropriate sized drill bit. Brad point bits

are recommended, and all drill bits should be clean and sharp. Insert the Arborplug with the set tool and mallet tapping in to the point where the bark and sapwood meet.

Alternative Arborjet STINGER Procedure: Alternatively insert the (7/32” drill bit) STINGER injector tip 5/8” deep into the sapwood with a hand push or by gently tapping the injector tip into predrilled hole with a mallet. Remove STINGERS upon completion of infusion process by twisting and pulling out counter-clockwise. We recommend using a disinfectant such as CLEAN-jet, between trees when using the reusable STINGER tips.

Resinous Conifers: In resinous conifers, such as pine and spruce, start the injection and/or infusion process immediately after drilling or following the setting of the Arborplug into the sapwood.

A prolonged delay may reduce uptake efficacy due to resin flow.

Ornamental Monocots: Make applications low in the stem, typically within 12” of the soil. Avoid wounding the meristematic tissue located within the crown of the plant. In palm*, drill into the central vascular bundle approximately one-third into the stem, insert an Arborplug 5/8” deep to form a seal and use the VIPER needle to complete the application. Only one site is needed.

*Not for use in California

Mixing Instructions : Mix each 15 gram ACE-jet packet per 100 milliliters of water. Refer to the Dosage Tables below to determine the number of packets and total volume needed to be mixed for tree application. Mix only the amount needed for immediate use. Empty the contents of the packet into the injection canister. Add the appropriate amount of water to the container. Use distilled water or acidic to neutral water (pH 5.5 – 7.0). Close the container by screwing on the lid. Next, swirl the contents THOROUGHLY until all the ACE-jet is dissolved.

ARBORJET SYSTEMS

Air/Hydraulic MICRO-Injection Application: Prepare the solution following the mixing instructions above. To inject, set the primary regulator to 75 PSI, charge the Dose-Sizer by pulling back on Dose-Sizer knob after priming, and apply the specified dose equally into the preset Arborplug ports.

Hand-Operated MICRO-Injection Application: Prepare the solution following the mixing instructions above. Close and hand pump or pressurize to between 15 and 25 PSI. Charge the Dose-Sizer by pulling back on Dose-Sizer knob, then apply specified dose equally into the preset Arborplug ports.

Quik-jet micro -Injection Application : Prepare the solution following the mixing instructions above. To Micro-Inject, set the Arborjet Tree Micro-Injector to the 3 mL/per shot setting. Draw formulation into the injector cylinder and squeeze handle to deliver the shot. Repeat until the full dose per injection site is delivered. Refer to the Tree Micro-Injection Dosages Table to determine the volume in milliliters to be delivered and number of injection sites to apply.

Tree I.V. MICRO-Infusion Application: Prepare the solution following the mixing instructions above. Close and pressurize the contents from 25 to 60 PSI and prime the lines by opening each injector valve slowly to purge the air. Insert the VIPER needle into the ArborplugTM port to begin the infusion. Remove when application is complete.

Refer to the Micro-Infusion Dosages Table to determine the volume in milliliters to be delivered and number of application sites to apply.

CLEAN-UP

IMPORTANT! It is critical to rinse the Arborjet System thoroughly after use. Use CLEAN-jet, soap and water or isopropyl alcohol. Residues left in the device may gum the internal components.

COMPATIBILITY

ACE-jet is compatible with all Arborjet fertilizers including the MICRO-jet infusible series. However, the physical compatibility of ACE-jet should be tested before use with other products.

To determine the physical compatibility of ACE-jet with other products, use a jar test

as described below.

1. Using a pint jar, add the proportionate amounts of the two products to 1 pint of water.

2. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed, it is physically compatible. If precipitates form, the combination is incompatible.

3. Once compatibility has been proven acceptable, use the same procedure for adding required ingredients to the formulation tank.

User must comply with all applicable directions, restrictions and precautions on the EPA-registered label when using any pesticide in tank mix combinations. The most restrictive labeling applies when using a tank mix.

NOTE: The safety of all potential tank mixes on all trees listed on this label may not have been tested. Before applying any tank mixture not specifically recommended on this label, the safety to the target tree should be tested. It is not advisable to apply pesticides via trunk injection or infusion applications that do not completely dissolve or disperse in solution. Application of liquid flowables, suspension concentrates, or dispersible granules that do not completely dissolve is NOT recommended.

CAUTION: Phytotoxicity has been reported in some crabapple cultivars.

WHEN TO TREAT

Apply when signs of insects first appear. ACE-jet is effective against actively feeding insects. However, insect activity should be monitored to establish a damage threshold for retreatment. Repeat applications as necessary.

RESTRICTIONS

- Keep away from children.
- Keep away from heat and open flame.
- Do not treat trees that are moisture stressed or suffering from herbicide damage.
- Do not inject trees within two weeks of any other spray or soil chemical treatment.

Limitations, Restrictions, and Exceptions

Tree DBH”: 5-7"

4: injection sites

For use with the Arborjet Tree I.V.
Low dose may be used in trees with small canopies or light (or early) infestations; use the higher dosages in trees with large canopies or moderate to severe (or late) infestations.

Christmas Tree Plantations, & Palms: Not for use in California

Refer in the label for tree DBH specific rates.

Method
Injection
Timings
When signs of insects first appear.