Injecting Hardwoods

1. Select the correct length tip. The standard .75" Wedge Tip is used for most hardwood trees; the longer 1.5" tip is for thick-barked trees such as elms and eucalyptus. To determine which length tip to use, grasp a short Wedge Tip at the hub, then push it through the bark until you feel resistance of the tip as it reaches the outer ring of sapwood (xylem). If you do not feel the tip reach the wood, switch to the longer Wedge Tip.

2. Attach a Wedge Tip to the Front QC Coupler (#17) by sliding back the coupler and inserting the tip hub. Release to lock the tip in place. Be sure to position the tip so the small hole on the barrel of the tip is directed upward.

3. Position the Deflector Shield. Slide the Shield (#46) over the tip until positioned snugly against the hub. Set the injection unit aside.

4. Remove a bark core. Working around the flare of the tree, within 12" of the ground, insert the SpeedChek™ WedgeChek Punch into the tight bark plate and rotate the punch in both clockwise and counterclockwise motions. Withdraw the punch with a straight motion, removing a small core of bark from the tree. Squeeze the punch trigger to remove the bark core from the punch into the palm of your hand. Examine the core to make sure the entire core has been removed. If part of the core remains in the tree, the SpeedChek WedgeChek may not seat properly. Use the punch to remove the remaining core or repeat the procedure at a new location.

Note: Avoid moving the punch side to side or up and down as this may enlarge the hole in the bark and cause the SpeedChek WedgeChek to not seat firmly.

5. Insert a SpeedChek WedgeChek into the site where bark core has been removed. With a SpeedChek WedgeChek strip inserted in the SpeedChek WedgeChek Punch, position the cone shaped end of the punch over the punched site. Using the palm of your hand, press firmly on the plunger to insert a SpeedChek WedgeChek into the punched hole. The barbs on the SpeedChek WedgeChek will secure it in the bark. See notes on Page 5 for treating thin-barked trees.

6. Slide the Wedge Tip through the SpeedChek WedgeChek and bark with a straight, gentle motion until you feel resistance of the tip meeting sapwood. Do not jab Wedge Tips into a tree, as tips may bend or break.

Do not force the tip into the sapwood. Only moderate hand pressure is needed. If the correct tip length was selected, it will usually be inserted no more than three-quarters of the length of the tip. The tip should be inserted so chemical will be delivered to the cambial zone; between the bark and the outer ring of sapwood (xylem).

7. Squeeze both handles of the injector at the same time, using a smooth, firm motion. This places a pre-measured dose of chemical into the cambial zone between the bark and the xylem, where it can easily be absorbed. Apply equal pressure on both handles—unequal pressure may bend or break the tip. Follow chemical label instructions to determine correct dosage, and number and spacing of injection sites.

8. Slowly remove the Wedge Tip from the tree. The self-sealing WedgeChek plugs the hole. Repeat these steps while moving around the flare of the tree. Leave the WedgeCheks in the tree. Tree growth will eventually push the WedgeCheks out.

9. If using a WedglePlus Tip you may remove the injection unit from the tip, allowing additional time for the tree to absorb chemical while you make other injections. Use the check valve in the tip hub to test if chemical has been fully absorbed. See step 7 on page 7 for more details.

Wedge Direct-Inject unit is preset to release a 1 ml dose of chemical with each full stroke of the handles. If you desire to inject a .5 ml dose of chemical, move the Dose Adjustment Ring (#25) to the .5 ml Dose Adjustment Groove (#52). This will limit the handle stroke so the unit will release a .5 ml dose of chemical. (see page 9)

Avoiding chemical waste: Any time you remove a chemical pack (after making injections), there is approximately 2.5 ml of chemical retained in the injection unit. To avoid wasting this chemical, remove the chemical pack and replace with a water pack before making your final injections. You will be able to make two additional 1 ml injections (or four or five .5 ml injections) with the chemical remaining in the injection unit. Be sure and replace the cap on the chemical pack when you remove it from the injection unit.

Benefits of making injections at the base, or flare, of the tree:

- When controlling cambial feeding borers, it is crucial that injection occurs in the flare, so the entire trunk is treated. Chemical will distribute more evenly throughout the tree.
- Injecting greater volumes of chemical such as fungicides is easier.
- For tough-barked trees, such as hackberry and hickory, the flare offers a more pliable area of injection.
- If any sap or chemical seepage occurs, it is less visible at the base of the tree.
- The base or flare of the tree provides best lateral movement of chemical.

Timing of applications: Spring through late summer is the ideal time for injecting hardwoods. The bark needs to be pliable, and that depends on the growing season. Chemical injected too early or too late in the season may not be absorbed because of slow or no translocation occurring in the tree. Read and follow chemical label instructions.

Notes on treating thin-barked trees: Chemical retention is improved when injections are made through the thickest available bark, generally found around the flare or base of the tree. For small trees, you may want to pull some soil away from the base and inject below grade where the bark is thicker and moist. You may reduce the amount of chemical per injection and increase the number of injection sites. Do not be concerned if the WedgeChek does not fully insert into the bark—barbs will hold the WedgeChek in place.