

Directions For Use

Required Tools:

- Electric or rechargeable drill, using a sharp spiral drill bit.
(Always refer to package in use for recommended drill bit size - 1/4", 3/8", or 1/2")
- Hammer
- Flat end punch, or dowel rod.
- Tree Wound dressing

Calculation and Application of Tree Implants:

(Read through instructions in their entirety prior to use)

1. Calculate the Circumference of the Tree: To find the circumference, use a tape measure around the tree trunk at **4 ft. above ground**. The number of implants required is based on the tree trunk size at 4 ft. above ground and the specific recommendations for the product being used. Measure circumference in inches.

2. Calculate the Number of Implants Needed: Divide the circumference by the recommended spacing for the product being used (3, 4 or 6 inches). If tree base is larger than measured circumference, make sure to place recommended number of implants evenly around the tree base.

EXAMPLE: 40.8 inches circumference ÷ 4 inches implant spacing = 10 implants

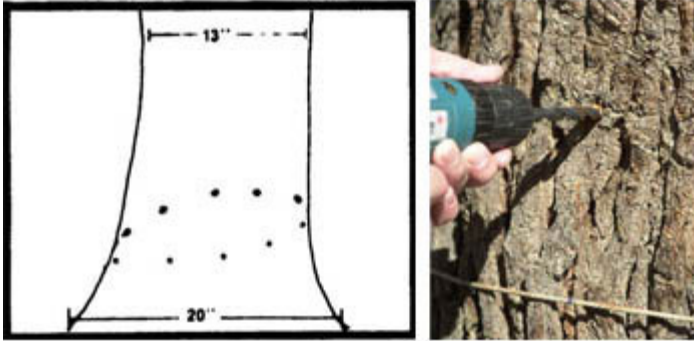
3. Calculate Drill Hole Depth: The holes need to be deep enough to allow each implant to be recessed just inside the inner bark. **Hole depth is determined from inside the inner bark.** For proper drilling depth:

Tree Size	Recommended Size of Implant Diameter	Drill Each Hole Depth
1 1/2" - 3" (3.8 - 7.6cm)	"Mini" 1/4" (.64cm)	7/8" (2.23cm)
3" and up (7.6cm and up)	"Standard" 3/8" (.95cm)	1 1/4" (3.2cm)
8" and up (20.3cm and up)	* "Super" 1/2" (1.27cm)	1 1/4" (3.2cm)

*** 1/2" Implants Available Only In MEDICAP FE.**

4. Gauging Drilling Depth: After drilling the first hole, use a measuring instrument (i.e. flat end of pen or pencil) as a depth gauge, insert completely into the hole and mark the depth by placing your thumb against the outer bark. **Be sure to remove drill shavings from each hole.** Repeat this procedure for every drilled hole.

5. Application of Tree Implants: Drill the implant holes at a uniform spacing, spiraling up and around the lower tree trunk surface. Start approximately 6 inches (15.2 cm) from the soil level.



6. Inserting the Tree Implants: Place the implant cartridge into the pre-drilled holes, simply pressing them into the tree trunk. Be sure to press the cartridges in as far as possible. Using a hammer and a flat end punch or dowel rod carefully drive the cartridge into the tree, recessing the large end slightly beneath the cambium surface, **which is just below the bark.**



7. Wound Dressing: The cartridge head securely plugs the small wound made to the tree trunk, however on thin barked trees (i.e. birch, ficus, etc.) it is recommended that a light wound dressing be applied over the implant site. This provides further protection until the cambium closes over. We suggest that [LacBalsam](#), artificial bark be used.

8. Completion of Application Process: With the application process completed the natural sap flow will “systemically” absorb the chemical and distribute it throughout the tree. The active layer of cambium will soon grow over and close the implant site. The cartridges are to be left inside the tree.

Notes:

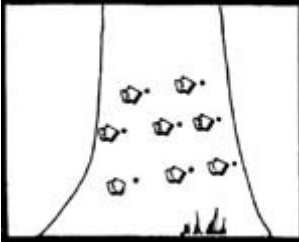
1. Where lower branching occurs 4 feet or less from the ground, make certain the implants are placed directly beneath the lower branches. This will assure adequate distribution of chemical throughout the tree.



2. On large trees where there is no main stem or trunk and multiple branching occurs, treat each stem as if it were a separate tree. This will assure adequate distribution of chemical through the tree.



3. When Re-treatment is necessary, place the new implants in a spiral pattern between, and above or below the previous treatment. Do not attempt to drill into and remove the cartridges implanted previously. Note the positioning of three applications.



4. Extensive research has shown that when MEDICAPS containing plant nutrients are properly applied, the response should be beneficial for 2-3 growing seasons. Therefore, repeat applications would normally not exceed two over a 4 to 5 year period. **Do not repeat implant treatments where tree has not shown the ability to adequately close over the prior treatment.**

Follow Cautions Where Indicated:

Do:

- Always read & follow label directions for product being used.
- Use proper drill bit
- Remove shavings from hole
- Recess cartridge end below the inner bark
- Sterilize the drill bit (using Lysol aerosol, or similar type, disinfectant) between trees being treated
- Water thoroughly if weather conditions are dry
- Carefully read the Application Timing for optimum results

Do Not:

- Enlarge the hole diameter
- Use a sharp end punch
- Remove the previously implanted cartridges
- Break plastic gelatin
- Place implant too deep

Application Timing:

The “effect” of systemic implants is maximized when implants are in place in the tree during the period of optimum xylem activity, to transfer the chemical from the implants into the crown of the tree. The chemicals used in **MEDICAPS** possess little (if any) phloem activity, therefore, it is suggested **application be avoided as trees are going into dormancy!** The following guidelines are provided to facilitate optimum initial results – and the best residual control. Statements made below are not intended as a guarantee of the residual activity of **MEDICAP** implants.

MEDICAP® FE and MEDICAP® MD:

For optimum first season response and for maximum duration control (i.e. 2-3 seasons), implants should be made after the trees are dormant, and prior to or during spring vegetative growth. Late summer/early fall treatments may be effective if trees still possess vegetative growth. If late summer, applications do not provide an initial response, benefit is normally evident the following growth season.

MEDICAP® MN and MEDICAP® ZN:

Since manganese and zinc do not translocate into existing chlorotic foliage, application is recommended prior to or during spring vegetative growth only. Limited initial response may be observed with early summer implants of MN or ZN if trees are capable of new vegetative growth. Deep root liquid feeding of a high nitrogen fertilizer will enhance the response of all **MEDICAP** implants, and particularly when using MN or ZN.