

How to Stake A Young Tree

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LET'S begin this discussion of staking street trees by assuming that staking is unnecessary. It costs a lot of money; it takes time to stake and restake a tree; farmers rarely stake any of their orchard trees. Why, then, is it necessary or even a good idea to stake landscape street trees?

To get the answer, let's compare orchard with street tree plantings: In both situations, there is a limited root system for the size of the tree. However, farmers often cut new trees 18

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to 30 in. from the ground at planting time. Street tree planters, on the other hand, often leave all top growth on trees as they come from the nursery, so that the problem of a limited root system is more acute.

Orchardists want low-headed trees. Street trees must be headed high, which presents the built-in necessity of supporting the head against wind and keeping it upright until the root system is large enough to do the job. Also, the long, thin main stem of the new street tree is often simply not strong enough.

An important difference between orchard and street tree

plantings is the "after planting human element." In short, street trees are wide open to frequently unintentional damage or destruction by cars, lawnmowers, children, etc.

Staking Is Necessary Evil

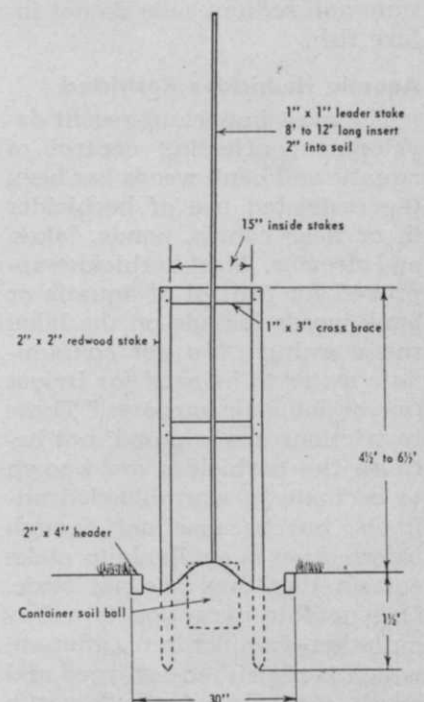
Staking street trees appears to be a necessary evil. Once this is accepted, the next step is to determine how to do the job effectively for the least cost. It is important, then, to consider the requirements for a proper staking job. Effective staking must:

1. Last at least three years in the landscape.
2. Support the young tree, but allow it flexibility, particularly in the head.
3. Be large enough and strong enough to support the tree throughout its training period, and protect it from mechanical damage.
4. Be placed so it will not interfere with growth development of the root system.
5. Not be so large that it overpowers the young tree at time of planting.
6. Be tall enough to support the leader from which scaffold branches will arise.
7. Afford support for protective shade.

Few stakes will meet all of these requirements. For example, the 1-in.-square nursery



Above, author Hamilton describes the double, or "Pomona," stake for protecting a young tree, a method widely used by park departments in the windy San Francisco Bay area of California. Diagrams at right clearly illustrate this effective staking technique.



stake meets the conditions of only 4 and 5. The 2-in.-square stake generally fails in requirements 2,3,4, and 6. The 2-in. by 4-in. stake, or 4-in.-square stake, generally fails in all requirements but 1. The double or triple 2-in.-square stake is an improvement, but fails to meet condition 6, and partially fails in 2 unless the tree is specially secured with loop wire ties.

Double Support Stake Works

Double 2-in.-square support stakes with rigid cross braces ("Pomona stakes") fulfill these requirements and give trees the support needed for several years in the landscape. A center 1-in.-square leader stake attached to the cross brace affords support required for the trunk and for development of scaffold branches.

By placing support stakes 15 in. apart, they will not interfere with the root ball or damage it at time of planting. When secured 18 in. into the soil and tied together with cross braces, this type of stake is far stronger than any single stake that might be used.

There is no way around the problem of securing the tree to the stake. Again, a small leader stake is most desirable for this purpose. A larger stake, 1 in. by 3 in. or 1 in. by 4 in., will seriously interfere with branch de-

velopment, since the tree must be tied to the stake.

Cheapest and most satisfactory method is to tie the tree to a thin leader with 1-in. plastic nurseryman's tape. Rope or wire, even though protected by a heavy rubber shield, will cause a great deal of damage to trees.

What about kind of wood for the stake? Redwood, long noted for its lasting qualities, is brittle. One park department collected nearly 2,000 redwood stakes that broke off at the ground line for one reason or another. Heartwood from slow-growth timber is increasingly difficult to get. Redwood, sapwood, or heartwood from rapid-growth timber may be little better than pine or other untreated soft wood. Douglas fir is being tried and looks promising.

A protective material, such as copper naphthalate, pentachlorophenol, or creosote, should be used to treat the base of the stake to a few inches above ground to make it last. For best results when selecting lumber for stakes, choose a uniform grade with only small tight knots.

Important as staking a young tree is, it should be realized that this is only one facet of growing potentially beautiful and valuable trees in controlled landscaping.

AAN Makes Landscape Awards

Thirteen U. S. companies from across the country have received industrial landscaping awards from the American Association of Nurserymen. Presented at a recent luncheon in Washington, D. C., the awards are designed to stimulate interest in industrial beautification.

Award recipients for 1966 are Anheuser Busch, Inc., for its Busch Gardens at Van Nuys, Calif.; Atlantic Richfield Co., Arco Chemical Div., Anaheim, Calif.; Bullock's Fashion Square, Santa Ana, Calif.; Capitol Car Distributors, Inc., Lanham, Md.; College of San Mateo, San Mateo, Calif.; First National Bank in Dallas, Dallas, Tex.; International Minerals and Chemical Corp., Skokie, Ill.; Lincoln First Federal Savings & Loan Association, Spokane, Wash.; Peoria County Courthouse, Peoria, Ill.; Prudential Insurance Co. of America, Boston, Mass.; Raleigh Savings and Loan Association, and Wachovia Bank and Trust Co., Raleigh, N. C.; Rossmoor Leisure World, Rockville, Md.; and Washoe County Library, Reno, Nev.

Ohio Tree, Turf, Nursery Men Meet Together in Jan.

Nearly all phases of nonfarm vegetation management will be covered by the 38th Annual Ohio State University Short Course for Arborists, Turf Managers, Landscape Contractors, Garden Center Operators, and Nurserymen, at the Sheraton-Columbus Hotel, Columbus, Ohio, Jan. 23-26.

Turf topics will highlight one of the split sessions on opening day, with items of interest to commercial, utility, and municipal treemen on the other. Successive days will be devoted to landscape, garden center, and nursery interests. Ohio Nurserymen's Assn. and Ohio Chapter, International Shade Tree Conference, will also hold annual meetings.

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