

Tree Planting Review

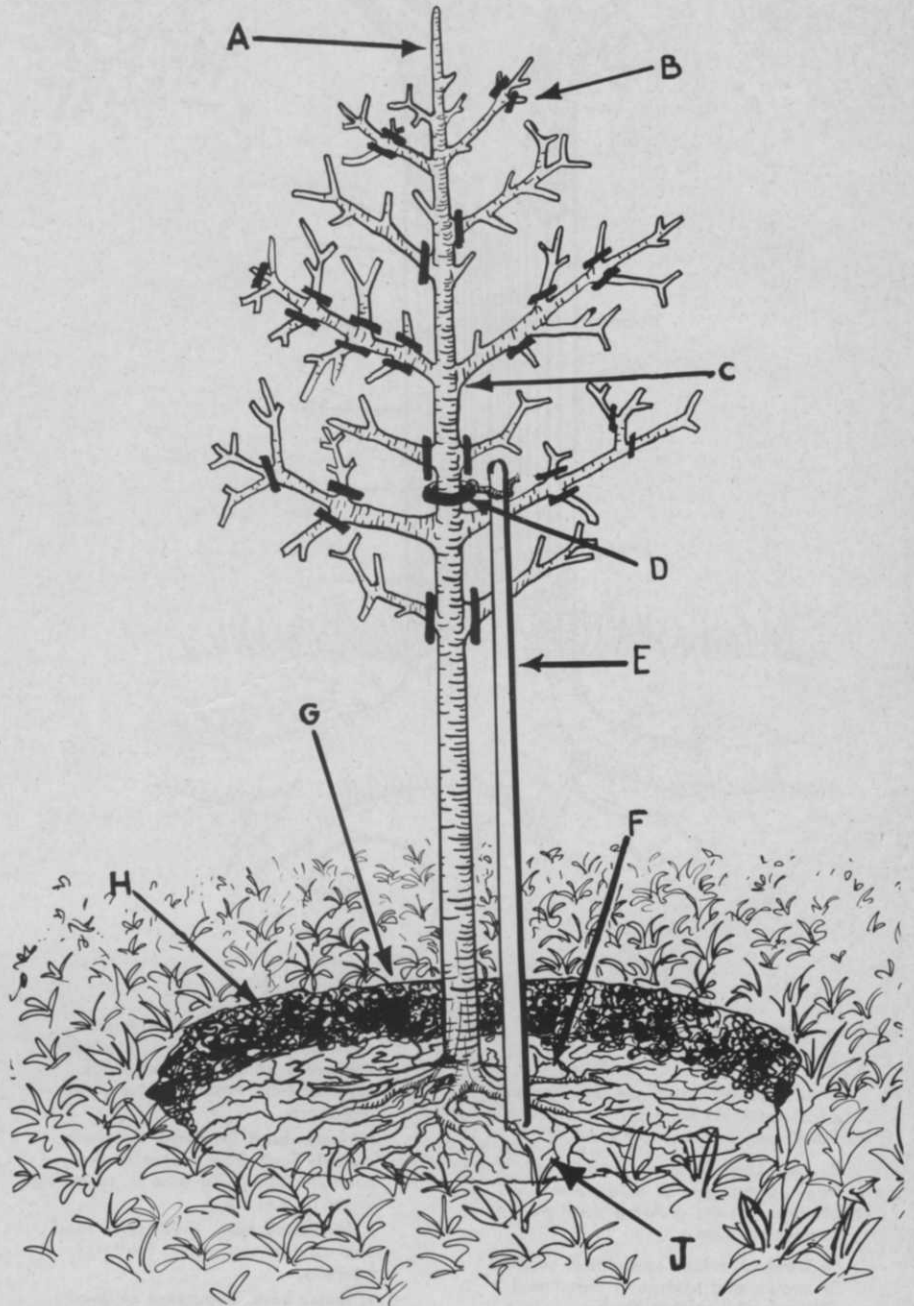
check list for new employees

TREE CARE MEN have to answer lots of questions. During tree planting operations, passersby and buyers become literal sidewalk superintendents. Questions as to why medium-sized and dwarf species are best for streets and ranch-type homes need answers. This is good for the industry.

At the same time, the tree man must be prepared to astutely discount the value of old, favored, but less desirable trees. For example, he must explain why Chinese and Siberian elms, poplars, willows, silver maple, boxelder, and others are not suitable. Though fast growing, they are relatively short-lived. Also, their brittle wood is susceptible to storm damage, roots invade underground pipes, and they are subject to pest and disease attack. A learned explanation assures the onlooker and promotes the professional care business.

Further, careful planting can build business. It does much to increase the percentage of trees which survive a move. This is especially true of wilding trees. Nursery stock is usually much easier to handle.

Most tree men prefer nursery stock, either that grown by themselves or purchased from a reputable operator. Nurseries generally offer a large selection of sizes and species. When compared to wilding trees, the nursery trees will have better root and crown systems, will become



A. Well developed head with strong leader, branches set at wide rather than close angles.

B. Before setting, tree should be pruned at points indicated by black lines rather than clipping the ends of branches.

C. Base of permanent crown should not obstruct walks or roadway.

D. Loop brace needs to be loose, pliable. Remove after the tree becomes firmly established.

E. Stake, 2½ inches by 10 feet in height,

needs to be driven into ground and secured with rubber covered wire or canvas.

F. Preserve all fibrous roots possible. Remove broken roots with a clean cut.

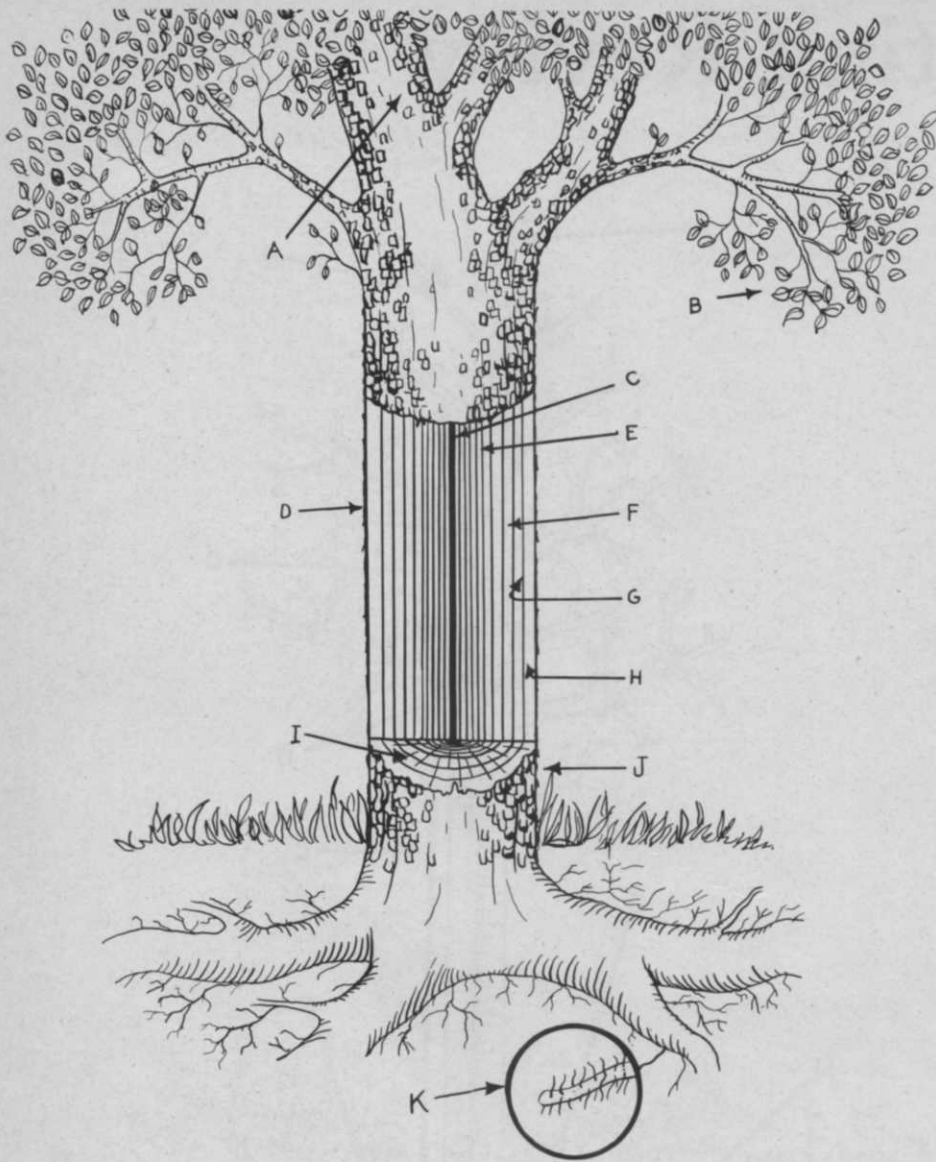
G. Dig hole at least 2 feet in diameter and 18 inches or more in depth.

H. Fertile soil needs to be packed firmly about roots and the hole filled to original soil level on trunk. Keep the soil surface pulverized.

J. Set tree 2 inches deeper than it was originally in the nursery. Fill hole to the lower root level with a 3:1 mixture of good soil and peat moss.

established more quickly, and are more likely to live.

When wilding trees are used, they need to be dug in open rath-



Functional Tree Parts

A. Crown.

B. Leaves. With sunlight these convert carbon dioxide from the air plus "raw" sap into useable food.

C. Pith. Located at very center of trunk. Composed of tissue which is produced at the growing point of the elongating stem.

D. Trunk. Provides mechanical support for crown and transports water and nutrients plus storing food manufactured in leaves.

E. Heartwood. Composed of dead cells and main function is support.

F. Sapwood (xylem). Conducts "raw" sap from the roots to leaves. Consists of both living and dead cells.

G. Cambium. Located between sapwood and inner bark or phloem. Composed of a thin, continuous layer of cells. Produces new wood and bark.

H. Inner bark (phloem). Conducts useable food from leaves to the cambium to nourish tree or to storage areas in the wood.

I. Medullary rays. These store food and conduct water and food laterally.

J. Outer bark. Composed of dead cells. Insulates and protects inner tissues from disease, infections, and drying.

K. Roots and hair roots. Hair roots absorb water and mineral salts from soil. Larger roots anchor tree and store nitrogen and carbohydrates.

er than wooded areas. When possible, pick trees from areas where soil is rich and deep. Trees growing from sprouts or in clumps should not be used. Also, with wilding trees, save as much

of the fibrous root system as possible. A tree not more than 10-12 feet in height is a good size to plant.

Trees larger than 12 feet can be successfully transplanted. But

such trees require the extra care gained by experience. Special methods and heavy equipment are also needed. Small trees, those 6-8 feet in height and about 1½ inches in basal diameter, can be dug and moved immediately. Larger trees, 10-12 feet in height and more than 2 inches in basal diameter, respond best when root-pruned a year before moving. Make the root-pruning cut about 6 inches away from the tree for every inch in diameter of the trunk. Remaining roots then form a compact fibrous root system ahead of moving the following spring.

Large Trees Can Be Successfully Transplanted

For even larger trees, those with basal trunks of more than 3 inches, root-prune for 2 years and move the 3rd year. In the first year, root-prune only part of the way around the trunk. Do the final root-pruning the 2nd year and then move the tree the next season. Though this is seldom practical, it is safest and will pay dividends in livability.

Evergreens are dug the same as hardwoods, making full use of the soil ball. However, evergreens need not necessarily be root-pruned prior to digging. When moving trees with a soil ball, work burlap well up and around the ball. Tie the burlap at the top of the ball so that it holds the soil securely in place.

Hardwoods may also be dug with roots bare. When this is to be done, dig around the tree carefully and cut the roots. Use a spading fork to loosen soil. Do this by gradually working the soil away from the roots. Start at the outer edge where the cut has been made and work toward the tree. In moving trees with bare roots, place peat moss and burlap around the root system. In all cases, keep roots moist until planted.

Best tree planting time is spring, during the dormant stage

HI-RANGER



HI-RANGER® IS

... your most productive, safest aerial platform for fastest, easiest tree service. Self-leveling bucket with one-hand, "3D" all-direction control enables one or two men to maneuver while operating tools.

YOU ARE

... assured of maximum work accomplished by happy crews who appreciate the safety inherent in HI-RANGER® insulated bucket and upper boom. Available with "all-day" chipbox. HI-RANGER's Series 5TD is most popular with tree men. Get all the facts now.

ASK
FOR
4D-5TD
DATA

MOBILE AERIAL TOWERS, INC.
DEPT. N 2314 BOWSER AVENUE
FORT WAYNE, INDIANA 46803

before the buds break. Trees are also easily moved during fall months, from leaf-coloring until freezing weather.

Once dug, trees need to be planted as soon as possible. When stock cannot be planted immediately, it needs to be heeled in by setting roots or soil ball in a hole, covered firmly with soil and kept moist.

Planting sites are important. Street trees do best when planted inside the sidewalk, rather than between walk and curb. The exception to this, of course, is when there is a wide area available between walk and curb.

Before planting, carefully consider the size of the fully matured tree. Trees need to be set 30 feet from structures and 50 feet apart. Make the hole deep enough and with sufficient width to receive the root ball without crowding roots. It is wise to dig a larger hole than needed and to refill excess space with a mixture of well-rotted manure, compost or peat moss, and rich loam. Trees need to be set about 2 inches deeper than they were in their original site.

When planting, remove burlap from ball or lay it flat in the hole. Spread all roots in a natural position. When this is not done, girdling roots may result and kill the tree. Jagged, broken, or badly injured roots need to be cleanly cut above the injury. Save as many small, fibrous roots as possible. Fill the hole in steps with a mixture of soil, rotted manure or peat moss. Tamp slightly and water as more fill is added. This forces soil around the roots and prevents air pockets. Leave a small depression around the tree to catch as much water as possible.

Stake the tree with loops which are attached loosely. Canvas or other pliable material such as a section of rubber hose works well. Do not use anything which will injure the bark. Com-

mercial loops can be purchased. Also, a recheck to see that stakes are holding the tree in a rigid position is worthwhile. Water as conditions warrant.

In the case of hot or particularly drying weather, the prepared anti-drying mixtures or waxes may prove profitable. These permit the tree to become established without too much drying out.

Hardwoods Need To Be Pruned Before Planting

Top-pruning is a must for hardwood (deciduous) trees. This offsets root loss which results from digging and moving. Nursery trees, because they have been root-pruned prior to digging, need less pruning than wilding trees which are dug and immediately planted.

Pruning needs to be distributed over the tree rather than just removing the ends of all limbs or removing all the branches on the lower half or third of the tree. Remove interfering limbs. Space limb crotches so that plenty of space is left for each remaining limb. Cuts should be flush for rapid healing of pruning wounds. Never cut back the leader unless one of the laterals in the top whorl is also removed. Otherwise, an undesirable forked tree will result.

Evergreens are seldom pruned except when root loss is severe. In such cases, remove some of the past year's lateral growth. Do not prune off entire limbs on evergreens or the natural form of the tree will be destroyed.

Recommendations for this WTT Tree Care Report are based on technical material of the Maine Forest Service. Illustrations likewise are based on Maine recommendations for planting and care of shade trees and supplied by Maine State Entomologist Robley W. Nash, Augusta.