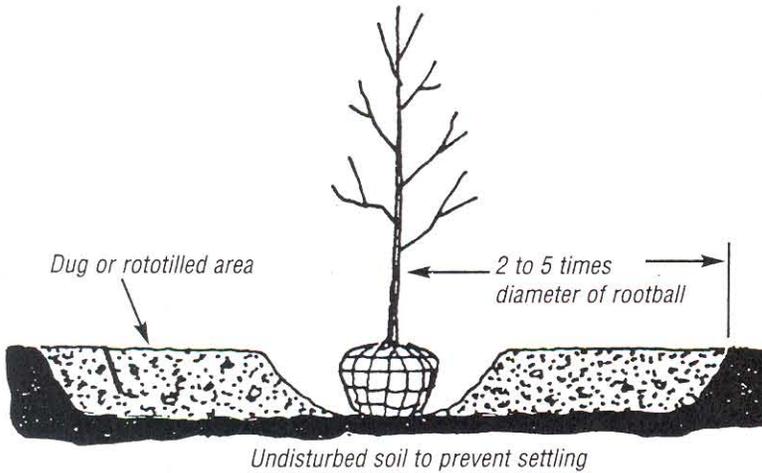


Tree Care

Keep this handy reference section to help with your family's future planting projects, school projects, etc.

Planting Burlapped or Potted Trees

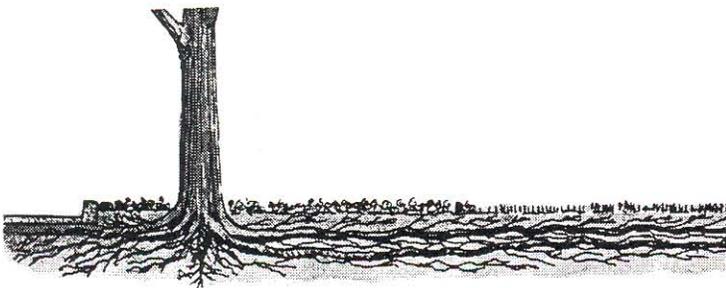


Recommendations for planting have evolved in recent years as more is learned about the nature of roots and compacted soils. Here are some guidelines created by tree experts and based on the latest research:

- Try to remove all synthetic burlap, rope and wire basket from rootball after tree is in hole.
- Cut slits in burlap for easier root growth.
- Pull back burlap from tree trunk to prevent future girdling root problems.
- Check each tree trunk for proper planting depth; tree trunk flare should be visible.
- Keep the rootball intact and move it carefully.

Where Roots Really Grow

It is amazing how far roots can extend. The diagram below depicts how and where roots grow. Understanding this will help you to avoid damage from trenching, construction and compaction.



- Because roots need oxygen, they don't normally grow in compacted oxygen-poor soil found under paved streets.
- Most roots grow within 18 inches of the surface.
- Roots often grow outward to a diameter that is at least one to two times the height of the tree.

The Planting Hole

The most significant change in tree planting procedures is focused on the planting hole. It can be summed up by saying, "Plant a \$10 tree in a \$100 hole!" Proper preparation will encourage healthy root growth. Following these directions will give your tree a boost toward rapid recovery from transplant shock.

Most roots spread through the top 18" of soil in a wide periphery around the tree. Slope the sides of the hole and dig or deeply rototill an area around the hole at least twice the diameter of the ball or container. An area up to five times the diameter of the root ball is recommended if the soil is particularly compacted, and the roots of other trees will not be damaged.

Fall Transplanting is recommended for most trees. Some species, however, perform better when transplanted in the spring. These sensitive species include: birch, red maple, oak, dogwood, hornbeam, hawthorn, hemlock, golden-rain tree, tuliptree, planetree/ sycamore, poplar, cherry, willow, silver linden, and zelkova. If these species must be planted in the fall, plant after the frost and be sure to allow for extra water at the time of planting. Continue watering until the ground freezes in winter.

Don't Top Trees!



Never cut main branches back to stubs. Ugly, weakly attached limbs often grow back higher than the original branches.

Many arborists say that topping is the worst thing you can do for the health of a tree.

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Following Up After Planting

Fig. 1 — Planting & Pruning

Leave as much leaf area as possible to help the tree build food reserves. Properly prune out dead or broken limbs, or those that rub.

Do shaping or corrective pruning the second year.

The appearance of a properly pruned tree is like a good haircut: hardly noticeable at first glance.



Fig. 2 — How to Make a Pruning Cut

Large Limbs:

- A. Make a partial cut from beneath
- B. Make a second cut from above, several inches out and allow the limb to fall.
- C. Complete the job with a final cut just outside the branch collar.

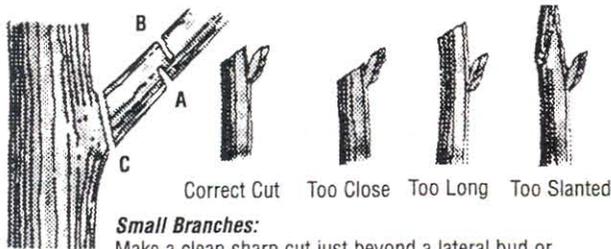
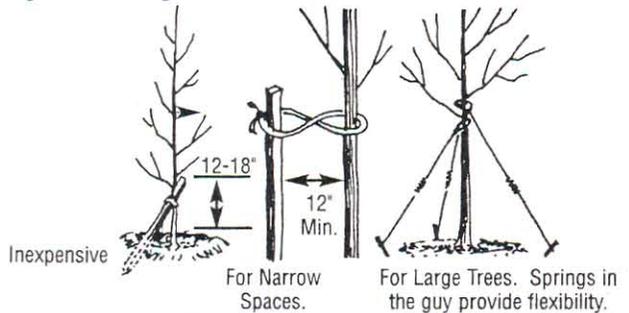
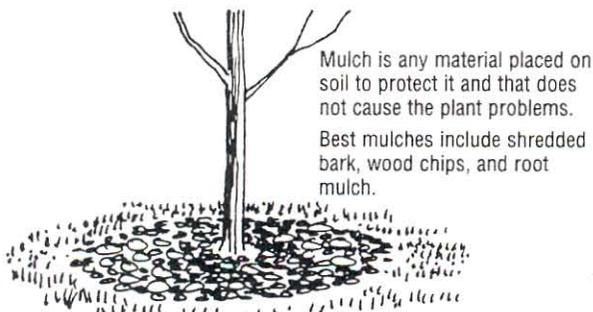


Fig. 3 — Staking



Stakes vary with space available and personal preference, but should be used only when absolutely necessary.

Fig. 4 — Mulch Your Tree.



Watering

Watering is the key to tree survival. After planting the tree, water deeply when filling the planting hole to eliminate any air cavities. Use a rake to firm the soil around fine roots. During planting, bare-root trees can be dipped in a water-absorbing polymer. This amazing chemical comes under a variety of brand names and is available from nurseries. Its function is to attract water when it rains, and hold moisture longer in the soil when conditions get dry. This polymer can also be used with balled and burlapped trees. It should be mixed with the backfill. The effects last for about two years. With or without the aid of polymers, it is recommended to water deeply around your tree once a week during warm, dry spells.

Pruning

Typically it is better not to prune after planting if the tree will be watered regularly. Leaves manufacture the food needed for root growth, so the young tree needs as much of its crown as possible. Exceptions to this rule include trees that will be exposed to strong winds or drought conditions. When this happens, early pruning will reduce the demand for water from the roots. Always prune dead or broken branches. (See Fig. 1) Any suckers or basal sprouts should also be pruned. Use sharp, clean pruning tools.

Fertilizing

Avoid fertilizing shade trees until late spring of the second year following planting. Fertilizers can "burn" roots or stimulate crown growth faster than the roots can supply water. A slow release fertilizer is recommended. Do not over fertilize!

Staking

Stakes and guy wires should be used only if support is necessary. When staking, avoid common problems by following these guidelines:

- If the main stem droops, find the best place for support ties by moving your hand up the trunk to locate the point above which the top can stand up on its own. Place the support ties about 6" above that point.
- Ties can be made many ways, but a loosely-fitted figure-eight tie made of polyethylene, cloth or a webbed strap is easy to install. All provide good support and cushion the tree from rubbing against the stake. Using two ties will also minimize the chance of bark damage from rubbing.
- Always allow a small amount of slack for sway.
- Avoid driving stakes through the root ball, or using stakes with flanges that will break roots when removed.
- Remember to remove support ties after one or two years.

Mulching — Keep Mulch from Contacting the Tree Trunk!

Mulch is a tree's best friend. Mulch: 1) holds down competing weeds or grass, 2) retains soil moisture, 3) prevents soil cracking that can damage new roots, 4) protects the trunk from lawnmower damage, and 5) helps prevent soil compaction.

Organic mulches such as wood chips or pine needles also contribute to better soil structure and aeration as they decompose. Avoid limestone rock, which is alkaline, and allow no mulch to touch the tree's trunk or be piled higher than 2 to 4 inches.

