

## New Tree Planting

### Selecting a Location

Ideally, every tree should be planted in accord with some overall landscape plan that takes into consideration the effect to be achieved, the size of the plants, and the way they are to be pruned and maintained. As a general rule, trees and shrubs should be placed so they may develop freely without crowding each other, the house, utility lines, or other structures. Before selecting an exact spot for a tree or shrub, determine its mature size. Be sure to get the correct information for the specific variety of your tree. Many shrubs and round-headed trees grow about as wide as they grow tall, so if figures for width are unavailable, estimate from the ultimate height. For example, a tree that grows between 10 and 15 feet tall will commonly spread its branches about the same distance, and should be planted about 7 to 8 feet (or about half its height) away from houses or other structures. Not all plants meet this standard, however, so make every effort to obtain width requirements from established sources.

You can decrease future maintenance problems by careful and thoughtful placement of trees. Due to their size, shade trees should be placed well away from the home or other buildings. Keep in mind in the years to come, the tree will sometimes lose branches in storms. For this reason, oaks and other wooded shade trees should be placed with room enough for growth away from buildings, utility lines, and wooded trees such as soft maple should be planted at an even greater distance.

### Planting the Tree

**CAUTION:** Always pick up the tree by the container or root ball, not by the trunk. The ideal time to plant trees and shrubs is during the dormant season—fall after leaf drop or early spring before bud break. This period of cool weather allows plants to establish roots in their new location before spring rains and summer heat stimulate new growth. However, as long as the tree has been properly cared for in the nursery or garden center, it is acceptable to plant throughout the growing season. Proper planting is essential to ensure a healthy future for new trees and shrubs.

1. **Dig a large planting hole.** **CAUTION:** Be sure you have had all underground utilities located prior to digging. The planting hole should be dug as deep as the root ball and twice as wide. A large-sized hole is important because as the tree begins to take hold in the ground, its roots must push through the surrounding soil. Roots will have a difficult time if the soil is rocky or compact; however, if the soil has been loosened by digging and backfilling, the roots will have room to establish well.
2. **Prune sparingly.** Examine the tree closely for injury to roots or branches. If any roots are crushed, cut them at a point just in front of the break. On the top, prune only

broken branches, making sure to leave the branch collar (swollen area where one branch meets another) intact. Begin corrective pruning after a full season of growth in the new location.

3. **Prepare the hole and soil.** While some newly transplanted trees may benefit from an application of plant food, it is best not to use fertilizer until the plant is well established. Good, rich, native soil placed in the hole is usually adequate. *Never apply high nitrogen fertilizer at planting time; it may burn tender roots.*
4. **Place the tree at the proper height.** To avoid damage, when setting the tree in the hole, always lift the tree by the root ball, never by the trunk. Add a significant amount of soil to the planting hole to bring the tree to its original growing level. This level is indicated by a dark stain on the trunk which marks the difference between the root and trunk bark. Keep in mind on balled and burlapped trees, the point at which the burlap is tied can be much higher than the original soil line. Planting at the proper height is important because if a tree is set too deep, its roots may suffocate; on the other hand, if the tree is set too shallow, the roots may dry out in the air and sun.
5. **Fill the hole, gently but firmly.** If the tree is balled and burlapped cut the string and remove all accessible burlap. For trees in plantable baskets, perforate the sides of the basket in 4 or 5 places and break off the top rim. Be careful not to make these punctures too big; they should allow roots to penetrate into the soil, but not cause the basket to fall apart.

Fill the hole by gently firming the earth around the tree to hold it in place and to eliminate air pockets. These air pockets may cause some roots to lose contact with the soil and dry out. To avoid this problem, settle the soil with water and add soil to the hole until the tree is firmly established. Do not use your feet to tamp around tree base; this compacts the soil and may inhibit the spread of roots. Rake a ridge of soil 2-4 inches high around the margin of hole (outside the root area) to serve as a reservoir when watering.

6. **Stake the tree if necessary.** Staking a tree can cause bark damage, so it should be avoided if possible. However, if a tree is too tall to stand alone or has a weak root system (ex. dwarf fruit trees), it should be staked to avoid shifting during heavy rains or high winds; such movement can easily damage tender roots. Staking must be done carefully with a broad, soft strapping material such as woven belt fabric or padded wire.

Drive 2 or 3 stakes into the ground just outside the perimeter of the planting hole, spacing them an equal distance apart. For each stake, attach 1 end of the strapping material to the tree at the lowest practical level to maintain it upright and fasten the

other end to the stake. Remove the stakes as soon as the tree has firmly rooted itself in the soil. As a rule, the stakes should not be left in place for more than a year.

- Mulch the base of the tree.** Mulch is simply organic matter applied to the area at the base of the tree. Some good choices of material are leaf litter, pine straw, shredded bark and twigs, peat moss, and wood chips. A 2-4-inch layer conserves soil moisture and protects newly-planted tree roots from hot and cold temperatures. Mulch also keeps down grassy weeds that may compete with a newly-planted tree for water and nutrition until the tree takes a firm hold.
- Water regularly.** Since many roots were removed when the tree was dug in the nursery, regular watering is important to aid the development of the strong new root system in the new site. Keep the soil moist but not soaked, as over-watering will cause leaves to turn yellow or fall off. Water trees at least once a week barring rain, and more frequently during hot weather. When the soil is dry 4 inches below the surface, it is time to water. Continue until mid-fall and then taper off, as this is the time for the tree to stop growing and harden for winter.

When questions arise, be sure to consult your tree care or garden center professional.