

Planting a tree

A properly planted and maintained tree will grow faster and live longer than one that is incorrectly planted. Trees can be planted almost any time of the year as long as the ground is not frozen. Late summer or early fall is the optimum time to plant trees in many areas. This gives the tree a chance to establish new roots before winter arrives and the ground freezes. When spring arrives, the tree is ready to grow. The second choice for planting is late winter or early spring. Planting in hot summer weather should be avoided. Planting in frozen soil during the winter is difficult and tough on tree roots. When the tree is dormant and the ground is frozen, there is no opportunity for the growth of new roots.

Trees are purchased as container grown, balled and burlapped (B&B), and bare root. Generally, container grown are the easiest to plant and successfully establish in any season, including summer. With container grown stock, the plant has been growing in a container for a period of time. When planting container grown plants, little damage is done to the roots as the plant is transferred to the soil. Container grown trees range in size from very small plants in gallon pots up to large trees in huge pots. B&B plants frequently have been dug from a nursery, wrapped in burlap, and kept in the nursery for an additional period of time, giving the roots opportunity to regenerate. B&B plants can be quite large. Bare root trees are usually extremely small plants. Because there is no soil on the roots, they must be planted when they are dormant to avoid drying out. The roots must be kept moist until planted. Frequently, bare root trees are offered by seed and nursery mail order catalogs or in the wholesale trade. Many state operated nurseries and local conservation districts also sell bare root stock in bulk quantities for only a few cents per plant. Bare root plants usually are offered in the early spring and should be planted as soon as possible upon arrival.

Carefully follow the planting instructions that come with your tree. If specific instructions are not available, follow these tips:

1. **BEFORE DIGGING**, call your local utilities to identify the location of any underground utilities.
2. Dig a hole twice as wide as, and slightly shallower than, the root ball. Roughen the sides and bottom of the hole with a pick or shovel so that roots can penetrate the soil.
3. With a potted tree, gently remove the tree from the container. Lay the tree on its side with the container end near the planting hole. Hit the bottom and sides of the container until the root ball is loosened. If roots

are growing in a circular pattern around the root ball, slice through the roots on a couple of sides of the root ball. With trees wrapped in burlap, remove the string or wire that holds the burlap to the root crown. It is unnecessary to completely remove the burlap. Plastic wraps must be completely removed. Gently separate circling roots on the root ball. Shorten exceptionally long roots, and guide the shortened roots downward and outward. Root tips die quickly when exposed to light and air, so don't waste time.

4. Place the root ball in the hole. Leave the top of the root ball (where the roots end and the trunk begins) 1/2 to 1 inch above the surrounding soil, making sure not to cover it unless roots are exposed. For bare root plants, make a mound of soil in the middle of the hole and spread plant roots out evenly over mound. Do not set trees too deep. As you add soil to fill in around the tree, lightly tamp the soil to collapse air pockets, or add water to help settle the soil. Form a temporary water basin around the base of the tree to encourage water penetration, and water thoroughly after planting. A tree with a dry root ball cannot absorb water; if the root ball is extremely dry, allow water to trickle into the soil by placing the hose at the trunk of the tree.
5. Mulch around the tree. A 3-foot diameter circle of mulch is common.
6. Depending on the size of the tree and the site conditions, staking may be beneficial. Staking supports the tree until the roots are well established to properly anchor it. Staking should allow for some movement of the tree. After trees are established, remove all support wires. If these are not removed they can girdle the tree, cutting into the trunk and eventually killing the tree.

Maintenance

For the first year or two, especially after a week or so of especially hot or dry weather, watch your trees closely for signs of moisture stress. If you see leaf wilting or hard, caked soil, water the trees well and slowly enough to allow the water to soak in. This will encourage deep root growth. Keep the area under the trees mulched.

Some species of evergreen trees may need protection against winter sun and wind. A thorough watering in the fall before the ground freezes is recommended. Spray solutions are available to help prevent drying of foliage during the winter.

Fertilization is usually not needed for newly planted trees. Depending on soil and growing conditions, fertilizer may be beneficial at a later time.

Young trees need protection against rodents, frost cracks, sunscald, and lawn mowers and weed whackers. Mice and rabbits frequently girdle small trees by chewing away the bark at snow level. Since the tissues that transport nutrients in the tree are located just under the bark, a girdled tree often dies in the spring when growth resumes. Weed whackers are also a common cause of girdling. Plastic guards are an inexpensive and easy control method. Frost cracking is caused by the sunny side of the tree expanding at a different rate than the colder shaded side. This can cause large splits in the trunk. Sunscald can occur when a young tree is suddenly moved from a shady spot into direct sun. Light colored tree wraps can be used to protect the trunk from sunscald.

Pruning

Usually, pruning is not needed on newly planted trees. As the tree grows, lower branches may be pruned to provide clearance above the ground, or to remove dead or damaged limbs or suckers that sprout from the trunk. Sometimes larger trees need pruning to allow more light to enter the canopy. Small branches can be removed easily with pruners. Large branches should be removed with a pruning saw. All cuts should be vertical. This will allow the tree to heal quickly without the use of sealants. Major pruning should be done in late winter or early spring. At this time the tree is more likely to "bleed" as sap is rising through the plant. This is actually healthy and will help prevent invasion by many disease organisms. Heavy pruning in the late summer or fall may reduce the tree's winter hardiness. Removal of large branches can be hazardous. If in doubt about your ability to prune properly, contact a professional with the proper equipment.

Under no circumstance should trees be topped. Not only does this practice ruin the natural shape of the tree, but it increases susceptibility to diseases and results in very narrow crotch angles, the angle between the trunk and the side branch. Narrow crotch angles are weaker than wide ones and more susceptible to damage from wind and ice. If a large tree requires major reduction in height or size, contact a professionally trained arborist. There are other methods to selectively remove large branches without sacrificing the health or beauty of the tree.