



Urban Forestry Program - Research Publication Circulation

Title: Planting a Tree

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Date: 2013

Source: CIRCULAR – SUAREC Urban Forestry Natural Resources and Environment No. 603

Description:

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Full paper: Attached

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Planting a Tree

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Tree selection is one of the most important investment decisions a home owner makes when landscaping a new home or replacing a tree lost to damage or disease. Considering that most trees have the potential to outlive the people who plant them, the impact of this decision is one that can influence a lifetime. Match the tree to the site, and both lives (tree and the person that planted the tree) will benefit.

The question most frequently asked of tree care professionals is ***“What type of tree do you think I should plant?”*** Before this question can be answered, a number of factors need to be considered. Think about the following questions:

- Why is the tree being planted? Do you want the tree to provide shade, fruit, seasonal color, or windbreak or screen? You may have more than one reason.
- What is the size of the planting site? Does the space lend itself to a large, medium, or small tree? Are there overhead or belowground wires or utilities in the vicinity? Do you need to consider clearance for sidewalks, patios, or driveways? Are there other trees in the area?
- Which type of soil conditions exist? Is the soil deep, fertile, and well drained, or is it shallow, compacted, and infertile?
- Which type of maintenance are you willing to provide? Do you have time to water, fertilize, and prune the newly planted tree until it is established, or will you be relying on your garden or tree service for assistance?

The ideal time to plant trees and shrubs is during the dormant season—in the fall after leaf drop or early spring before bud break. Weather conditions are cool and allow plants to establish roots in the new location before spring rains and summer heat stimulate new top growth. However, trees properly cared for in the nursery or garden center, and given the appropriate care during transport to prevent damage, can be planted throughout the growing season. In either situation, proper handling during planting is essential to ensure a healthy future for new trees and shrubs.

Whether the tree you are planting is balled and burlapped or is bare root, it is important to understand that its root system has been reduced by 90 to 95 percent of its original size during transplanting. As a result of the trauma caused by the digging process, trees commonly exhibit what is known as transplant shock. Transplant shock is indicated by slow growth and reduced vigor following transplanting. Proper site preparation before and during planting coupled with good follow-up care reduces the amount of time the plant experiences transplant shock and allows the tree to quickly establish in its new location.

Planting a Bare Root Tree

It is best to plant bare-root trees immediately, in order to keep the fragile roots from drying out. If you can't plant because of weather or soil conditions, store the trees in a cool place and keep the roots moist. The following diagrams show the steps to plant a bare root tree.



1: Unpack tree and soak in water 3 to 6 hours. Do not plant with packing materials attached to roots, and do not allow roots to dry out.



2: Dig a hole, wider than seems necessary, so the roots can spread without crowding. Remove any grass within a three-foot circular area. To aid root growth, turn soil in an area up to 3 feet in diameter.



3: Plant the tree at the same depth it stood in the nursery, without crowding the roots. Partially fill the hole, firming the soil around the lower roots. Do not add soil amendments.



4: Shovel in the remaining soil. It should be firmly, but not tightly packed with your heel. Construct a water-holding basin around the tree. Give the tree plenty of water.



5: After the water has soaked in, place a 2-inch deep protective mulch area 3 feet in diameter around the base of the tree (but not touching the trunk).

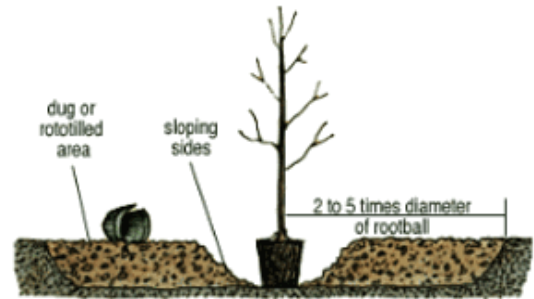


6: Water the tree generously every week or 10 days during the first year.

Plant a Containerized Tree (Balled & Burlapped or Potted)

1. Dig an area one foot deep and approximately 5 times the diameter of the root ball. The prepared soil will encourage root growth beyond the root ball and results in a healthier tree.
2. In transplanting, be sure to keep soil around the roots. Always handle your tree by the ball, not by the trunk or branches. Don't let the root ball dry out. Help prevent root girdling by vertically cutting any roots that show tendencies to circle the root ball.
3. After placing the tree, pack soil firmly but not tightly around the root ball. Water the soil and place a layer of 2" to 4" thick, protective 3-foot circle of mulch around the tree.

If a tree is planted correctly, it will grow twice as fast and live at least twice as long as one that is incorrectly planted.

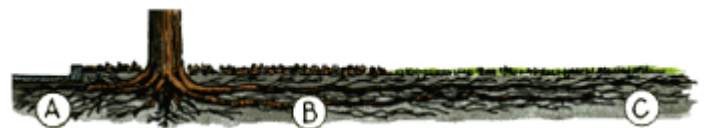


Where Roots Really Grow

The root system of a tree performs many vital functions. In winter, it is a store-house for essential food reserves needed by the tree to produce spring foliage. Roots absorb and transport water and minerals from the soil to the rest of the tree. Roots also anchor the portion of the tree above ground. It is important to keep the portion above ground healthy to ensure an adequate food supply for the roots to continue their important functions.

Most tree roots are located in the top 6 to 24 inches of the soil, 3 to 7 feet deep and occupy an area two to four times the diameter of the tree crown. Soil compaction, change in soil depth and improper watering can injure roots, increasing stress and susceptibility to disease and insects. Because roots need oxygen, they don't normally grow in the compacted oxygen-poor soil under paved streets. To avoid root disease, maintain a healthy, vigorous environment around a tree. Once a root system is severely affected, the tree usually must be removed.

Roots often grow outward to a diameter one to two times the height of the trees.



Following Up After Planting

Watering – is the key to tree survival. It should be used when filling the planting hole to eliminate large air cavities, firm the soil around fine roots, and make nourishment available to the tree. Water deeply around your tree once a week during dry spells.

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Pruning – generally, it's best not to prune after planting, except for dead or broken branches. Remember, do not top the tree. Get help from a tree care professional.

Fertilizing – to avoid root burn, don't fertilize shade trees until the late spring of the *second* year after planting.

Mulching – mulch is a young tree's best friend, placed 2 to 4 inches deep on the soil around the tree, but not touching the trunk.

Tree Planting Tips

Select trees native to your area. Check with local reliable nurseries for species appropriate for your area.

Avoid exotic trees that can invade other areas, crowd out native plants, and harm natural ecosystems.

What purpose will the tree serve? Beautification, street trees, screening of sights and sounds, shade and energy conservation, fruit orchard, or wildlife habitat.

Plant low maintenance trees. They will be more tolerating of local weather and soil conditions.

Trees planted to the southeast, southwest, or west side of the house provide cooling shade in summer and don't obstruct the low winter sun.

Consider trees height, crown spread, form or shape, growth rate, fruit, soil, sun and moisture requirements, root space and Hardiness zone (indicates the temperature extremes in which a tree can be expected to grow).

Trees bearing fruits or nuts can provide an excellent source of food for many species of wildlife. However, some people consider some fruit and nut bearing trees to be "dirty".

What is the average life expectancy of the tree? Some trees can live for hundreds of years. Others are

considered "short-lived" and may live for only 20 or 30 years. Many short-lived trees tend to be smaller ornamental species. Short-lived species should not necessarily be ruled out when considering plantings. They may have other desirable characteristics, such as size, shape, tolerance of shade, or fruit that would be useful in the landscape. These species may also fill a void in a young landscape, and can be removed as other larger, longer-lived species mature.

Does the tree have any particular insect, disease, or other problem that may reduce its usefulness? Certain insects and diseases can be serious problems on some desirable species in some regions. Depending on the pest, control of the problem may be difficult and the pest may significantly reduce the attractiveness, if not the life expectancy, of the plant.

How common is this species in your neighborhood or town? Some species are over-planted. Increasing the natural diversity will provide habitat for wildlife and help limit the opportunity for a single pest to destroy all plantings.

Is the tree evergreen or deciduous? Evergreen trees will provide cover and shade year round. They may also be more effective as a barrier for wind and noise. Deciduous trees will give you summer shade but allow the winter sun to shine in. This may be a consideration for where to place the tree in your yard.

How big will this tree get? When planting a small tree, it is often difficult to imagine that in 20 years it could be shading your entire yard. Unfortunately, many trees are planted and later removed when the tree grows beyond the dimensions of the property.

Does it have any particular ornamental value such as leaf color or flowers and fruits? Some species provide beautiful displays of color for short periods in the spring or fall. Other species may have foliage that is reddish or variegated and can add color in your landscaping year round.

Proper placement of trees is critical for your enjoyment and their long-term survival. Check with local authorities about regulations pertaining to placement of trees. Some communities have ordinances restricting placement of trees within a specified distance of a street, sidewalk, streetlight, or other utilities.

The Right Tree in the Right Place

Available space is probably the consideration most overlooked or misunderstood when deciding what tree to plant. Before you plant, it is important to know what the tree will look like as it nears maturity. Consider its height, crown spread, and root space.

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| Basic Spacing Guide | | | |
|---------------------------|------------------------|--|--|
| | Spacing plant massings | Min. spacing from wall of 1-story building | Min. spacing from corner of 1-story building |
| Small trees (30' or less) | 6-15' | 8-10' | 6-8' |
| Medium trees (30-70') | 30-40' | 15' | 12' |
| Large trees (70' or more) | 40-50' | 20' | 15' |



Circular UFNR, No.603

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