

Trees are an important part of the Florida landscape. Over the last several years the method by which trees are planted has been studied extensively. The way I was shown to plant a tree by my father long ago, research shows, may not have been the best. Certainly the trees we planted together lived and gave us great joy in their growing but recent findings show that they have grown better, faster and with fewer problems had we known then what we know today. In the following article, Leu Gardens' Chief Horticulturist, Helen BeVier, briefly describes important new information. At the end she has also supplied several resources for additional information. As national Arbor Day fast approaches it is hoped that you take into consideration the following information.

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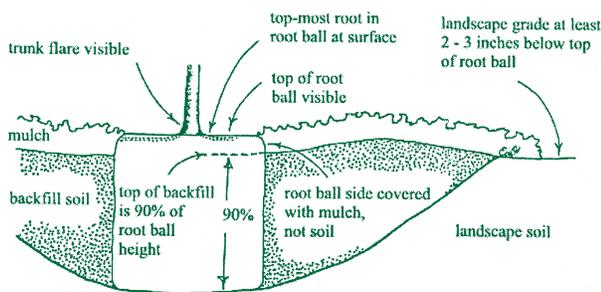


Establishing Trees in Central Florida

It is a proven fact that shade trees can lower energy costs by up to 20%. They do this by casting shade upon homes and keep the interior cooler. This is great news when everyone is concerned about energy costs.

Trees do other things for the homeowner besides lowering energy costs. They improve the air quality in several ways. They reduce the effects of harmful gases such as nitrogen dioxide, sulphur dioxide and carbon monoxide while also sequestering carbon dioxide that helps lower the rate of global warming. They trap and hold up to 50 gallons of water each, which helps reduce stormwater runoff that causes flooding and pollution during rainy seasons. They provide aesthetic beauty and increase property values.

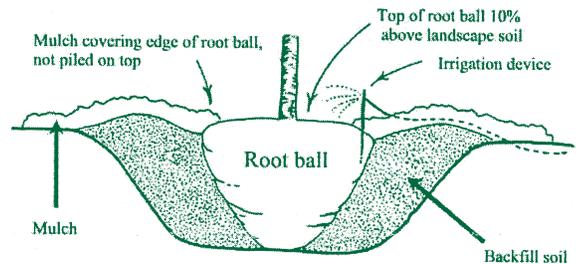
Due to construction and development, the native tree canopy is constantly being reduced. Trees take years to grow into a size that will provide all the benefits



mentioned above, so it is important to plant trees now. Trees that do well in Central Florida are the live oak, magnolia, elm, hickory, bald cypress, red maple, and river birch to name a few.

When planting a tree, before digging the hole, remove all soil from above the

root flare. This is the area where the trunk of the tree flares into the root area and sometimes is also called the trunk flare. Carefully measure the distance between the topmost root and the bottom of the root ball. Dig the hole about 10% shallower than this depth and as wide as possible (at least 1.5 times the width of the ball). The root



ball should be positioned in the hole shallow enough so the finished grade of the backfill soil and landscape soil is lower than the top of the root ball. In other words, leave the top of the root ball sides exposed to the air. Be sure that when you are finished planting, there is **NO SOIL** and little or no mulch, over the top of the root ball. Soil (as well as thick mulch layers more than 1 or 2

inches deep) over the root ball can prevent water and air from entering the root ball. Mulch on the trunk can also cause bark deterioration and encourage trunk disease.

When finished planting, you should be able to see the top-most root in the root ball originated from the trunk at the soil surface, or it should

be within the top inch of soil in the root ball. The trunk flare should be visible. Locate the irrigation device so it delivers water to the root ball. There is usually no need to water areas outside the root ball. **No amendments of any kind are necessary in the backfill soil** because

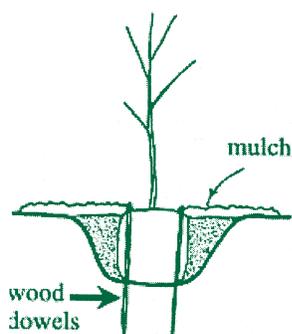
extensive research clearly shows that they typically do not increase survival nor growth after planting.

Staking: In most instances, if the root balls are heavy enough, stakes are not necessary. Stake to stabilize the root ball. This is done by driving wood dowels through the edges of the root ball. These do not have to be removed because they simply rot in place. There is no danger of this system girdling the trunk since nothing is attached to the trunk.

Mulching: Weed and turf suppression during establishment is essential. Apply a 3-inch thick layer of mulch around the plant to help discourage weeds. Apply a thinner layer of mulch over the outer half of the root ball, keeping mulch away from the trunk. Mulch resting on the trunk and applying too thick a layer can kill the plant by oxygen starvation, death of bark, stem and root disease, prevention of hardening off for winter, rodent damage to the trunk, keeping soil too wet, and repelling water.

Fertilization: It is generally not necessary to apply fertilizer at the time of planting. Soluble fertilizer to a newly installed plant could burn the roots if too much is applied. Slow release (or controlled release) fertilizer can be applied on top of the root ball and backfill soil or on top of the mulch at planting. Care should be taken to follow the directions on the product.

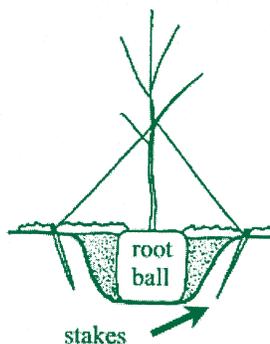
Establishment: Trees provided with regular irrigation through the first growing season after transplanting require about 3 months per inch of trunk diameter to fully establish roots in the landscape soil. Trees that are under-irrigated during this establishment period often require additional time to establish because roots grow more slowly. Most trees are under-irrigated



during the establishment period. Because roots are not fully established, be prepared to irrigate through the entire

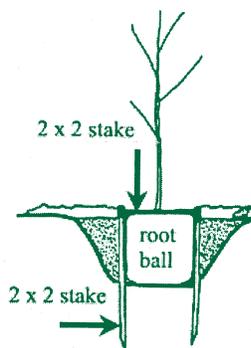
establishment period, especially in drought.

Irrigation: Unlike established plants, research clearly shows that recently transplanted trees and shrubs establish quickest with



light, frequent irrigation. For trees planted in spring or summer, provide three irrigations each week during the first few months after planting. Daily irrigation in the warmest hardiness zones provides the quickest establishment. Following the initial few months of frequent irrigation, provide weekly irrigation until plants are fully established. At each irrigation, apply about 2 to 3 gallons of water per inch

trunk diameter (e.g. 4-6 gallons for a 2-inch tree) over the root ball. Never add irrigation if the root ball is saturated.



Delete daily irrigation when planting in winter. Irrigate in drought the following summer.

– Helen BeVier
Horticulture Manager

Additional Resources:

Web Pages

Floridaisa.org

www.arborday.org

www.treeplanting.com

www.nhq.nrcs.usda.gov/CCS/TreePtg.html

www.backyardgardener.com/tree/

Books

Your Florida Landscape: A Complete Guide to Planting and Maintenance

Your Florida Guide to Shrubs: Selection, Establishment, and Maintenance

Trees for Urban and Suburban Landscapes
by Edward F. Gilman

An Illustrated Guide to Pruning
by Edward F. Gilman

