RPGTIMES

A Publication of the Roots Plus Field Grower Association of Florida



Planting Trees

By Dr. Ed Gilman, University of Florida

I am fortunate to have had the opportunity to travel to many parts of this great country during the last thirty years and have seen quite a number of trees planted in many soil types. I dug up more than two thousand trees in many different states to study root system response to planting. I've planted thousands of trees in more than forty tree-planting research projects, all of which are published in peer reviewed scientific journals. Combining this experience with that of many green industry professionals, we developed the following guidelines for planting trees in landscapes.

Several years ago I was conducting a training session in the Montreal Municipal Nursery in Canada. We excavated several 3-inch caliper trees in the field. What did we find? Trees planted 6 to 10 inches too deep in the field. When these trees were dug in the nursery, they were already 6 to

10 inches too deep in the root ball. And if they are planted with the top of the root ball even with the landscape soil they will be 6 to 10 inches too deep in the landscape. In many soil types, this can kill the tree. Some of the thirty professionals in the class remarked that they regularly see worse. I too have seen much worse, but fortunately not in Florida. Florida continues to produce some of the best nursery stock in the country. We are spoiled. It wasn't always that way.

I begin planting when the tree is sitting in the holding area at the job site. I find the point where the top-most root in the root ball emerges from the trunk. It should be within two inches of the top surface of the root ball. This zone is often called the root collar, root crown, or root flare. Not all nursery trees have a prominent swollen root flare, especially young trees and those from cuttings. This is normal

and no cause for concern since it will develop later.

There should be no big roots circling or crossing over the top-most main roots growing out from the trunk. You have to displace soil above the top-most main roots during the planting process in order to check for and treat these root defects. This should be part of the planting process for all trees. It's not the end of the world if there is more than 2 inches of soil over the top-most root; but, you have to do more work at planting to remove this soil along with the roots growing in it. This is especially difficult for maples, elms, birches and other trees with dense root balls. Purchase nursery trees planted ▶ correctly in the root ball. Dig the hole shallower than the root ball to account for any soil that will need to be removed once the tree is in the hole.

Cut the circling roots at the point just before they make ▶

Preparation is Key to Preventing Storm Damage to Trees

Are you and your trees safe from the possible wrath of Mother

Thousands of trees and communities are damaged annually by heavy rains, wind, and tropical storms or hurricanes. But yours can be spared from the worst damage by following a few practical suggestions from the International Society of Arboriculture.

"Recognizing and reducing tree hazards not only increases the safety of your property and that of your neighbors, but also improves the tree's health and may increase its ▶

Preparation continued on page 4



Hardened-off Palms

A New Frontier

Hardening-off field-grown trees is something every field grower should do. Hardening-off or curing trees simply involves holding trees after harvesting for three to four weeks under ideal watering conditions. Hardening-off is completed when a tree begins to regenerate roots after harvesting (new root growth is visible). This production technique ensures that a tree overcomes any stress related to harvesting prior to shipping and transplanting. Research has continuously shown that hardened-off trees are superior performers in the landscape with regard to transplanting success, establishment, and new growth in the landscape.

So why doesn't everyone hardenoff? Using this technique requires greater planning and scheduling to have trees of all types and sizes continuously available and ready for shipping. It takes more work on the grower's end to plan for this system, but the reward of providing a higher-quality tree that will perform better on the job is worth the extra planning.

Hardening-off has become so popular that there are palm tree growers who have seen the benefits of hardening-off and are offering hardened-off palms to the industry. This is a totally new concept for palm trees where almost all palms are shipped immediately after harvesting. John Deere Landscapes and Griffin Trees are partnering in the effort to bring Root Enhanced sabal palms to the market.

The Root Enhanced process begins by harvesting a sabal palm, removing the fronds (hurricane cut) and bringing it into a nursery environment where it receives consistent irrigation and fertilization. The palm then starts the process of regenerating a new root system and growing a new head over the next six-to eightmonth hardening-off period. The Root Enhanced sabal palm will offer the end user a sabal palm that can be transplanted from a nursery environment with a superior root system as well as a newly developed canopy that will ensure a greater survivability and give customers immediate gratification.

The Roots Plus Growers
Association of Florida has more
than twenty five grower-members
throughout Florida, promoting the
benefits of and educating consumers
about hardened-off trees for more
than ten years.

Grades and Standards

The Ten Steps in Depth

The 2008 Roots Plus Growers Field Day is scheduled for May 14th, at Marshall Tree Farm in Morriston, Florida. This Annual event—now in its twelfth year—continues to draw more than one hundred and fifty green-industry professionals each year for hands-on training in the field at some of Florida's premier tree farms. This involving seminar is designed specifically for urban foresters, municipal tree inspectors, landscape architects, landscape contractors, and others in Florida's green industry. The 2008 workshop will focus on Grades and Standards with the entire morning planned for an in-depth look at the ten steps of the Grades and Standards for trees with plenty of time for discussion. The afternoon will include more handson Grades and Standards stations as well as other important components of quality tree production and selection. Florida has led the nation by improving tree quality for the last ten years; however, grading has to become more uniform across the state in order for us to move forward. We will spend considerable time with finished shade trees in the field so we understand the Grades and Standards. You will grade trees under guidance from instructors so we provide more uniform grading in our profession across the state. You will be able to "get your hands dirty" in this program. Come see new trees being grown by quality nurseries and learn how to use them in landscapes. Learning the most up-to-date planting recommendations will help ensure these quality trees remain a sustainable part of the landscape for a long time.

Free Grades and Standards documents and updates will be provided to all attendees!

WHAT YOU WILL LEARN

Grades and Standards: basic to advanced

Grades and Standards updates, corrections and clarifications

Real world examples of making tough decisions

The Florida DOT perspective on Grades and Standards

Growing quality roots systems and why it matters

Grading and inspecting roots at delivery

Accepting trees with minor defects

KNOW MORE
Fore detailed information and to download registration brochures

Florida Chapter ISA www.floridaisa.org 941.342.0153

Roots Plus Growers Association of Florida www.rootsplusgrowers.org 800.786.1422

NOTES FOR GROWTH BY JACK SIEBENTHALER



We made it through the last Hurricane Season and had nothing to fear!

Are we lucky? You bet!

So—let's talk about how lucky we are for living and working in the state of Florida. With all the current complaining about increasing property taxes, political shenanigans, national trends in so many areas and the ever extending international events, why can't we remember the many plusses we constantly enjoy?

Every day the sun comes up, we arise to an assured opportunity to achieve some sort of goal. Each day offers the chance to better ourselves in many ways, if only we choose to take advantage! We are constantly challenged with change for the better, unlike so many of our less fortunate friends in other countries. Yes, these are truly plusses to be counted for us.

Is tomorrow the time to add some new lines to our inventory? How about the chance to review the way we deal with our employees or customers? Do we need to alter our delivery methods in order to improve our service to our market? So many opportunities are available, waiting to be discovered!

Maybe the final price of gas will never be as low again in our lifetime as it was a year ago. Who knows when the wars in the mideast will (may) be over? Can we look for ever decreasing property taxes in the future? Will politics settle down to a more rational level for the good of the nation? Don't bet on it! But, looking at the good side, it's a great ride overall and we should be thankful for the chance we all have to be a part of it!

We surely are lucky to be a part of all of this!



▶ a turn. That way, new roots will grow away from the trunk and stabilize the tree better than the circling root. If these cut roots are large, the tree might shock and could die. It's OK if the point where the top-most roots emerge from the trunk is exposed and visible. We have found at the Great Southern Tree Conference demonstration site that this is usually not a problem, at least on live oaks and magnolias.

Dig a shallow planting hole as wide as possible. Shallow is better than deep! Many people plant trees too deep. A hole 3 times the width of the root ball is often recommended but 1 1/2 the diameter is more common. Wider holes should be used for compacted soil, rocky sites, and wet sites. A wider hole might help roots from becoming deformed in these tough situations. Deformed roots make trees less stable in wind. The depth of the hole should almost always be less than the height of the root ball, especially in compacted or wet soil. The only exception I can think of would be if the top-most roots in the root ball are right at the top surface of the root ball with no root defects to treat. But even then I would plant an inch or two high if they were my trees. If the hole was inadvertently dug too deep, add soil

and compact it firmly with your foot. Root balls on some container trees have sunk deeper into the soil as much as 2.5 inches in the two years after planting from root ball decomposition; we have not recorded sinking on field-grown trees. Position trees accordingly.

Place the point where the topmost root emerges from the trunk slightly above (like 2 inches) the surface of the landscape soil. If the roots are a bit deep in the root ball then the top of the root ball will be more than 2 inches above the landscape soil.

If the tree is a little deep in the hole, it must be lifted and reset after adding soil to the bottom of the hole. Continue this until the tree is set at the appropriate depth; it is always better to plant too high than too deep. Once it is at the appropriate depth, place a small amount of soil around the root ball to stabilize it. Soil amendments are usually of no benefit. The soil removed from the hole makes the best backfill unless the soil is bad or contaminated.

Straighten the tree in the hole. The top of the root ball might be sticking out above the backfill soil. Cover the sides of the root ball with mulch or loose soil and apply mulch to as large of an area as possible around the root ball to at least an 8-foot diameter circle around the tree. Mulch placed on the root ball can cut off water, and encourage formation of stem girdling roots during establishment. Construct a berm out of mulch or soil at the edge of the root ball only if the tree will be watered with a hose, bucket, or other high-volume means. Constructing a berm in other situations will not provide more water to the root system. If soil is used to construct a berm, plans should be made to rake the soil away from the root ball later in establishment; don't push it toward the trunk as this can encourage formation of stem girdling roots.

► longevity," said Jim Skiera, ISA's Executive Director.

WHAT YOU CAN DO

BEWARE OF POTENTIAL HAZARDS

Cracks in the trunk of major limbs

Hollow, aged, and decayed trees

One-sided or significantly leaning trees

Branches that hang over the house near the roof

Close proximity of utility lines

PREVENT DAMAGE

Remove dead, diseased, and damaged limbs.

Consider removing trees with large cavities of decay.

Leaning trees may indicate a root problem, have them inspected.

Branches too close to your house, a building, or the street should be pruned to provide clearance.

Branches that are too close or touching utility lines need to be pruned or removed. If this work is needed, report it to your local utility company—do not prune the tree yourself.

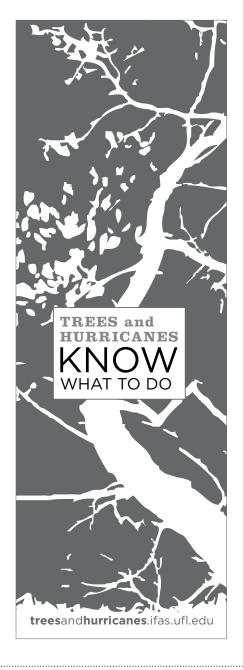
Trees damaged by heavy rains and wind

Heavy rains and wind can cause trees to crack, split, and even uproot. Severe storms with heavy rains can soak the soil so thoroughly that tree roots cannot stay fastened in the ground during strong winds. An ISA-certified arborist can help determine if broken trunks and limbs should be removed or if uprooted trees can be saved or replanted.

The University of Florida/Institute of Food and Agricultural Sciences (UF/IFAS) created the Urban Forest Hurricane Recovery Program after the devastation of the 2004 and 2005 hurricane seasons.

The main goal of the program is to foster a healthy urban forest that is more wind resistant. The program is aimed at citizens and communities who seek to rebuild and set better management practices so that future storms are less devastating.

The above information is from the The International Society of Arboriculture (ISA), a nonprofit organization supporting tree care research around the world. Headquartered in Champaign, Ill., ISA is dedicated to the care and preservation of shade and ornamental trees.



Fertilizer Facts

How much fertilizer is necessary for large tree production? After years of asking that question to fellow growers and those in the know, I began to realize that little or no research has been done on large-tree production. We have done many smaller experiments over the years that have helped guide our fertilization practices. However, much of what we do is not based on techniques proven by research, but rather on techniques used over time. We decided years ago to be proactive about the lack of research in our industry and started doing it on a large scale at our farm. Over the last ten years, this has led from one experiment to another, and we are currently working on a fertilizer research project.

Our fertilizer experiment compares five different rates of fertilizer and five different. application frequencies on six hundred Cathedral live oaks and six hundred East Palatka hollies. We are two years into a four-year planned study, but are already beginning to see results. We are finding that we will be able to reduce both our fertilizer rates and application frequency. We are seeing similar caliper and height growth with reductions in rate between 33% and 50%. In addition, we are able to reduce application frequency by 25% to 50% without decreasing caliper or height growth. This information will help us reduce costs and refine our growing practices with the confidence that our decisions are backed by research.

-MICHAEL MARSHALL

RPG Welcomes New Members

The Roots Plus Growers Association growing strong! We welcome seven new Grower Members:
Currie Tree Farm, Fish Branch
Tree Farm, Lakeland Oaks, Snapper Creek Nursery, Southern Tree
Growers, The Arbor Group LLC, and Urban Palmetto Nurseries.
We also welcome Total Quality
Liners as a new Associate Member. RPG now counts with twentynine grower members and ten associate members, and continues to grow strong.

If you are interested in membership or in learning more about the Roots Plus Growers Association, please give us a call at 352.528.3880. For member locations and phone numbers please see page 6.

Sleeve ≠ RPG

Regular buyers of field-grown trees are most likely familiar with the black sleeve of weed-cloth-like material over the root ball of each tree. This sleeve covers the wire basket after harvest and helps to prevent new roots from taking hold in the ground during the hardening-off period. Please note that though many growers ship trees with these sleeves over the root ball, that does not guarantee that the trees have been hardened off. Be sure to look for the RPG tag on the trees you buy as your guarantee of quality hardened-off trees.









GROWER MEMBERS

North

Alturas Native Nursery

863.289.0274 | Alturas bald cypress, live oak, holly, cedar, podocarpus, red maple, ligustrum

BE-MAC Farms

813.920.2247 | Odessa live oak, pine, sycamore, sweetgum, elm

Bent Oak Farm

352.245.5429 | Ocala live oak, willow oak, red maple, chinese elm, southern magnolia, crape myrtle

Cannon Trees, Inc.

352.279.9709 | Brooksville live oak, southern magnolia, bald cypress, ligustrum

Champion Tree Farm

352.278.3321 | Gainesville live oak, southern magnolia, red maple, east palatka holly, crape myrtle

Currie Tree Farm

941.232.8791 | North Port Cathedral live oak, crape myrtle, cultivar magnolia, east palatka holly

Ellenton Nursery Growers

863.326.5639 | Parrish 941.776.2245 ligsutrum, red maple, live oak, palm spp.

Fish Branch Tree Farm, Inc.

863.735.2242 | Zolfo Springs Boardwalk, Cathedral and Parkside live oak

Central

FMT Farms

352.799.6614 | Brooksville live oak, laurel oak, sycamore, sweetgum, crape myrtle, bald cypress, southern magnolia, maple

Fort Drum Growers

386.776.2727 | McAlpin live oak, laurel oak, sycamore, sweetgum, holly, slash pine, red maple, red cedar

Huntsman Tree Supplier

352.754.5295 | Brooksville 386.963.4896 | Lake City live oak, laurel oak, southern magnolia, bald cypress, red maple, sweetgum, red cedar, winged elm, slash pine

John Deere Landscapes

941.737.2305 | Parrish live oak, laurel oak, holly, southern magnolia, cedar

Lakeland Oaks

863.853.1254 | Lakeland live oak

Marshall Tree Farm

800.786.1422 | Morriston live oak, southern magnolia, sweetbay magnolia, holly, chinese elm, winged elm, crape myrtle, slash pine, bald cypress, sweetgum

South

Nature Coast Tree Corp.

386.935.9349 | Bell live oak, ligustrum, holly, southern magnolia

Nealy Farm, LLC

352.817.1391 | Dunnellon live oak, ligustrum, holly, maple, chinese elm

Quality Trees & Shrubs

352.257.2080 | Leesburg live oak, southern magnolia

Skinner Nurseries

800.741.2020 | Bunnell live oak, ligustrum, holly, crape myrtle

SMR Farms

941.708.3322 | Bradenton large specimen live oak

Snapper Creek Nursery

772.216.9993 | Fort Pierce live oak, laurel oak, crape myrtle, bald cypress, slash pine

Southern Tree Growers

407.656.0216 | Winter Garden live oak, ligustrum, magnolia

Spectrum Tree Farms, Inc.

800.753.1379 | Live Oak live oak, ligustrum, holly, crape myrtle, slash pine, bald cypress, southern magnolia

Stewart's Tree Service

352.796.3426 | Brooksville live oak, laurel oak, southern magnolia, holly, ligustrum

The Arbor Group LLC

407.235.8492 | Orlando cultivar live oak and magnolia, summer red maple, duraheat river birch, eagleston holly, bald cypress

The Magnolia Company

800.880.4662 | Barberville southern magnolia

Tiger Lake Tree Farm 352.516.0509 | Lake Wales live oak

Turner Tree & Landscape 941.721.3597 | Bradenton live oak #1 and naturals

Urban Palmetto Nurseries 407.948.5981 | Orlando live oak, cathedral live oak, slash pine, east palatka holly

Walsh Brokerage 863.326.5639 | Parrish live oak, laurel oak, sycamore, pine spp. holly, magnolia

ASSOCIATE MEMBERS

Braun Horticulture
Cherokee Manufacturing
General Cordage
Graco Fertilizer Company
Grass Roots Nurseries
Seaworld
Jack Siebenthaler
Sunrise Landscape
Total Quality Liners
Treemart

RPG TimesLine

May 9 | Orlando

The Magic of Landscapes Conference, Epcot® International Flower and Garden Festival www.magicoflandscaping.com www.fngla.org

May 14 | Morriston
Grades and Standards...The Ten
Steps In Depth, 12th Annual RPG
Field Day

Marshall Tree Farm, Morriston, FL www.rootsplusgrowers.org 352.528.3880

June 7–10 | Weston
Trees Florida Conference and
Trade Show

Hyatt Regency Bonaventure Conference Center, Weston, FL www.treesflorida.com

July 31–Aug 2 | Jacksonville Florida Chapter ASLA Annual Conference and EXPO Omni Jacksonville Hotel, Jacksonville, FL www.flasla.org

August 7–9 | Atlanta

Southern Nursery Association (SNA) Forum Trade Show World Congress Center, Atlanta, GA www.sna.org

August 15–17 | HoustoN Nursery/Landscape EXPO George R. Brown Convention Center, Houston, TX www.txnla.org

September 25–27 | Orlando FNATS: The Landscape Show Orange County Convention Center, Orlando, FL www.fngla.org or 800.375.3642

October 3–7 | Philadelphia ASLA Annual Meeting & EXPO Pennsylvania Convention Center, Philadelphia, PA www.asla.org

December 4–5 | Gainesville 8th Annual Great Southern Tree Conference Hilton Hotel & Conference Center, Gainesville, FL

www.fngla.org or 800.375.3642

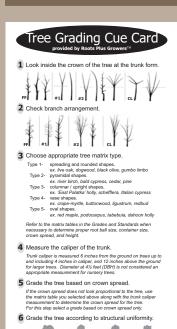
Trees are Cool License Plates Available Now



With Florida's unique environment, extra attention must be paid to preserving our natural resources, especially our trees. By purchasing a TreesAreCool.com license plate you help underwrite programs that directly benefit the trees of Florida which help keep our state the uniquely beautiful place we all call home. Healthy trees benefit wildlife, increase property values and help

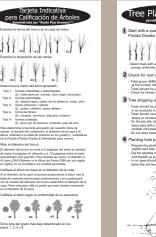
The Florida Chapter of the International Society of Arboriculture, a nonprofit organization, is committed to serving the needs of Florida's professional arborists and tree-care consumers. The TreesAreCool.com license plate revenues benefit our urban environment through tree research, the ongoing education of tree-care practitioners, and by providing public education programs about tree care and preservation.

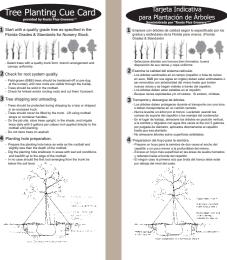
RPG Cue Cards



The Roots Plus Growers
Association has developed
a pocket guide for tree
planting to supplement the
popular Tree Grading Cue
Card. This 3×7" laminated
Tree Planting Cue Card is
intended to simplify the
tree planting process by
highlighting eight steps for
successful transplanting.

Download a copy of each cue card at rootsplusgrowers.org, or call 352-528-3880 to request yours today!







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