



In the Shade

Vol. 32, No.5
January 2009



2009 Certification Tests

January 17	Mercer Arboretum, Houston
March 19	Round Rock
April 6	Dallas Fairmont Hotel
May 1	CPS Energy Training Center Auditorium, San Antonio
August 20	Round Rock
October 2	Round Rock

Information and an application form are available at

http://www.isatexas.com/Members/Certification_Information.htm.

As with all Certification Examinations, the application must be in the ISA office 12 working days prior to the exam.

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President's Corner

by John Giedraitis

HAPPY NEW YEAR from ISAT!

OK, you've made all those New Year's resolutions like no thirds on dessert and that you'll always take the stairs (well, at least down!). Now how about making a resolution that will really benefit you and your profession? We have plenty of opportunities for you to help out at ISAT.

Just pick your interest here:

- Certified/Master Arborist Working Group is planning a two-day spring workshop on tree evaluation. Call David Vaughn at (210) 654-8733.
- Municipal Specialist Working Group is forming a Society of Municipal Arborists Texas Chapter and is planning a workshop on tree risk evaluation for cities. Contact Paul Johnson at (210) 289-0815.
- Certified Tree Worker Working Group is holding it's workshop in Fort Worth this month and is

planning another at the Texas Tree Climbing Championship in May. Call Keith Brown at (512) 996-9100.

- Utility Arborist Working Group is helping to bring the National Arbor Day Foundation to Dallas for a Utilities and Trees Conference this April. Call James Koenig at (210) 353-3798.
- Tree Climbing Championship will be held in Austin in May. We always need judges and volunteers for this fun event. Call James Tuttle at (806) 785-8733.

Don't see anything there that strikes your fancy? There are lots of other committees like Annual Convention, Arbor Day, Certification, Awards, Scholarships and Research. Drop me a line or give me a call at 979-458-6650 and resolve to improve yourself and your profession in 2009. I can guarantee that you will have fun and work with some great folks.

BIG TREE PHOTO ALBUMS

To see photo journals from many Texas Forest Service big tree hunting trips, check out the photo galleries at <http://texaschampiontrees.snapfish.com>. Just type in the user name "bigtrees@tfs.tamu.edu" and the password "champion" to gain access to the site, or create your own account to get automatic updates when new photos are added.

ISAT History Detective Looking for Photos of Past Events

The ISAT historian is looking for past ISAT event photos. If you have any photos from past conferences, classes, competitions, etc., please burn copies onto CDs or email them to Heather Brewer directly.

Heather is looking for old photos for two reasons: First, she is starting a historical photo piece in the ISAT newsletter – a fun piece that will pay homage to where we have been as an organization (not to mention it will be fun laughing at all the old haircuts). Second, she is planning to create a ISAT photo library. As a group we have done a poor job of recording our organization's history, and she is trying to remedy the situation.

Old photos would be fantastic. However newer photos would also be much appreciated. If you have lots of time on your hands, labeling who is in the photos would be wonderful, but Heather will take unlabeled photos as well. If you burn the photos onto a CD, please make separate folders and label the folder with the event title and year. If you don't have digital copies of the photos and trust Heather you can mail her the physical photos and she will scan the cream of the crop for the album and newsletter.

You can email photos, if you have just a few, to:
hbrewer@georgetowntx.org.

You can snail mail CDs to:
City of Georgetown
c/o Heather Brewer
P.O. Box 409
Georgetown, TX 78627

Acorn Watchers Wonder What Happened to Crop

The idea seemed too crazy to Rod Simmons, a measured, careful field botanist. Naturalists in Arlington County couldn't find any acorns. None. No hickory nuts, either. Then he went out to look for himself. He came up with nothing. Nothing crunched underfoot. Nothing hit him on the head.

Then calls started coming in about crazy squirrels. Starving, skinny squirrels eating garbage, inhaling bird feed, greedily demolishing pumpkins. Squirrels boldly scampering into the road. And a lot more calls about squirrel roadkill.

But Simmons really got spooked when he was teaching a class on identifying oak and hickory trees late last month. For 2 1/2 miles, Simmons and other naturalists hiked through Northern Virginia oak and hickory forests. They sifted through leaves on the ground, dug in the dirt and peered into the tree canopies. Nothing.

"I'm used to seeing so many acorns around and out in the field, it's something I just didn't believe," he said. "But this is not just not a good year for oaks. It's a zero year. There's zero production. I've never seen anything like this before."

The absence of acorns could have something to do with the weather, Simmons thought. But he hoped it wasn't a climatic event. "Let's hope it's not something ghastly going on with the natural world."

Read the whole article by Washington Post staff writer Brigid Schulte at <http://www.washingtonpost.com/wp-dyn/content/article/2008/11/29/AR2008112902045.html?hpid%3Dtopnews&sub=AR>

Report from the Dallas Urban Forest Advisory Committee

Vision North Texas has just released the "Regional Choices" report, an incredible compilation of data including the Dallas Heat Island Effect maps (just released), local landfill life expectancy map and impervious cover map, and it notes that the DFW carbon footprint is the size of the entire state of New Mexico. Urban forestry is making great strides on the regional level, and the report notes some of the committees' objectives including the need for tree inventory baseline data. The website includes the report, but downloading the entire report may take time due to its size: www.visionnorthtexas.org.

Doug Pierson, our webmaster, and Mike Fitzgerald, our Public Relations Team Leader, recently provided a weekly activity report on our website since its inception. It shows a high of 3,770 requests with 825 pages sent, which speaks volumes about our efforts to educate the public.

The following link includes a report on the ratio of trees per person worldwide:

<http://www.npr.org/templates/story/story.php?storyId=96758439>

The USDA Forest Service Center for Watershed Protection website now includes new resource guides, some of which include urban forest related issues: www.cwp.org

—Steve Houser,
Dallas Urban Forest
Advisory Committee Chair

Is This the Tallest Tree in Texas?

One tree I've wanted to visit for some time is our state champ loblolly pine (*Pinus taeda*), since it was once listed at 146 feet tall. Could this be the mythical "tallest tree in Texas?" In November, I packed up my trusty Suunto clinometer and my new laser rangefinder to find out. Tucked into a streamside buffer beside a young pine plantation in Rusk County is this ancient specimen, whose bark looks positively prehistoric! After careful scrutiny, we determined the new measurements to be: circumference, 165 inches; average crown spread,



TFS forester Clint Hays and the state champion loblolly pine.

49 feet; and total height (drum roll, please)...130 feet! What's even more amazing than seeing this 307-point giant is the fact that the owner also has the #2 loblolly pine on a different tract nearby! So, is it the tallest tree in Texas? Until someone shows me a taller one, I'll have to say it is!

See more information on the Big Tree Registry and download the current issue of The Big News from <http://texasforests.tamu.edu/main/article.aspx?id=1336>

—Pete Smith

Dutch Elm Disease in Texas

by David N. Appel

The vascular pathogen *Ophiostoma novo-ulmi*, causal agent of Dutch elm disease (DED), has been known to occur in Texas for several decades. Outbreaks seem to occur periodically in certain areas, including Lufkin, Waco, and the Ft. Worth/Dallas regions in Texas. Most recently a large, relatively destructive outbreak has been active in the Flower Mound area near Ft. Worth. Records in the Texas Plant Disease Diagnostic Laboratory (TPDDL) in College Station show that there were two confirmed cases during 2005 in that region. One of the confirmations was in an American elm (*Ulmus americana*), and the other in a cedar elm (*Ulmus crassifolia*). There was another confirmation in an American elm this past summer (2008). This current outbreak has gotten the attention of homeowners, urban foresters and arborists, resulting in a great deal of discussion about how the situation should be handled.

Like oak wilt, Dutch elm disease is one of the more notorious tree diseases to appear in North America. The devastation caused by DED was due to the extreme susceptibility of the native American elm and the widespread urban plantings of that species throughout the midwestern U.S.A. In spite of what is found on poorly documented internet websites, all native elm species in North America are not uniformly susceptible to *O. novo-ulmi*. As can be seen in the excellent reference “Diseases of

Trees and Shrubs,” written by Wayne Sinclair with Howard Lyon and Warren Johnson (Cornell University Press), there is actually a great deal of variability in susceptibilities of native North American elms. Cedar elm is listed in that text as being intermediate in susceptibility, and it is highly likely that many other native elms in Texas carry some resistance to *O. novo-ulmi*. The predominance of cedar elm in the Texas woodlands is undoubtedly one of the reasons why the impact of DED in Texas has been minimal. Nonetheless, the DED pathogen can be extremely damaging when introduced into a stand dominated by the highly susceptible American elm (*Ulmus americana*), as is happening in Flower Mound. It is likely that the DED pathogen is more widespread throughout Texas and has simply avoided detection.

Diagnosis of DED can be accomplished in the field with a fair degree of accuracy. Within weeks of infection, individual limbs and branches rapidly wilt and die (**Figure 1**). In American elms, the wilting rapidly spreads from a few infected branches throughout the tree in a matter of weeks (**Figure 2**). Branch tips form dead, necrotic “shepherd’s crooks” due to the wilting of the younger tissues. A key diagnostic criterion is discolored vascular streaking just beneath the bark of infected twigs, branches and limbs (**Figure 3**). This is a recognizable, reliable symptom. Since *O. novo-ulmi* is a vascular parasite, it spreads from tree to tree through root grafts and can be relied upon to cause patches or rows of diseased trees, depending on the tree stand structure. Laboratory isolation of the pathogen is also a routine, reliable process. Unlike the oak wilt pathogen (*Ceratocystis fagacearum*), *O. novo-ulmi* emerges on laboratory media consistently from infected twigs and branches. *C. fagacearum*, however, is far more difficult to isolate even from symptomatic tissues.

A different disease has been diagnosed in Texas on cedar elm, called native elm wilt. This disease is caused by the fungus *Dothierella* spp. and without laboratory confirmation may be confused with Dutch elm disease. Bacterial leaf scorch (BLS), caused by *Xylella fastidiosa*, also occurs on elms in Texas and might be mistaken for Dutch elm disease, although BLS would not kill a tree nearly as quickly (if at all). The TPDDL is equipped for, and experienced in, isolating *O. novo-ulmi*. New forms and instructions for sample submission can be found at the recently improved clinic website <http://plantclinic.tamu.edu/>. ➡

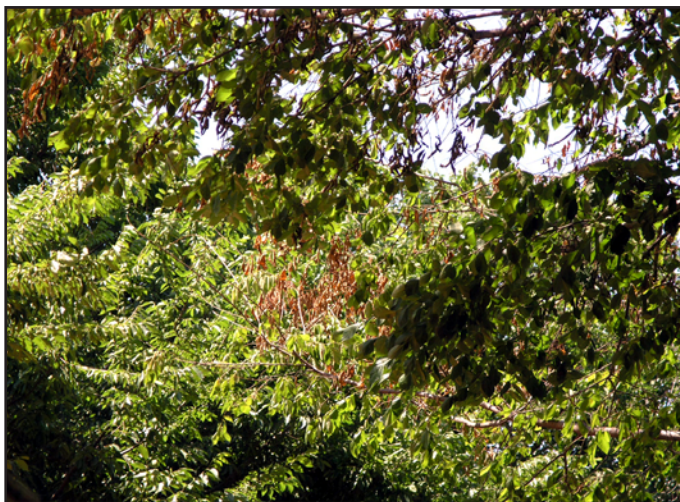


Figure 1. Wilting and necrosis of an individual limb on an American elm infected with the Dutch elm disease pathogen. Photo by D.N. Appel

Dutch Elm Disease in Texas *Continued*

In spite of the extreme virulence of the pathogen, DED has proven to be a controllable tree disease. The key to control relies on a combination of practices. They include regular survey and detection, removal of trees to eliminate inoculum production, applications of insecticides, elimination of root grafts, and intravascular injection of high value trees at high risk of infection. Therapeutic injections are also effective for trees in the early stages of colonization, but should not be attempted if more than 5 – 10% of the crown is symptomatic. Remedial pruning may be useful, particularly when used with a practice called “bark tracing.” The extent of colonization can be estimated by peeling bark and following the trace of discolored sapwood from the infected limb down toward the trunk. Again, bark tracing and pruning of diseased limbs is only effective in the early stages of infection and will not work in trees in the advanced stages of colonization. An excellent source of DED control recommendations may be found at the U.S. Forest Service website http://www.na.fs.fed.us/spfo/pubs/howtos/ht_ded/ht_ded.htm.

Although some of these management techniques sound familiar to those involved with oak wilt control, they are based on very different principles due to significant differences between the two pathogens. Unlike oak wilt, where fungal mats are required for insect transmission, every infected elm tree is a source of inoculum for spread by the insect vectors. Elm bark beetles breed in dead and dying elms, where the pathogen forms copious spores in the galleries. As the new populations of beetles emerge from the contaminated galleries, they disperse to feed in twig crotches on healthy elms. This is another significant difference between oak wilt and DED – the elm bark beetles make their own wounds, whereas nitidulids require a fresh wound made by some other agent. During feeding, *O. novo-ulmi* is inoculated into a new tree to complete the disease cycle. For this reason, one of the best ways to control DED is to detect diseased trees in the earliest stages of infection and destroy them before they can serve as inoculum sources for beetle transmission. These surveys must be made regularly and thoroughly. Insecticide sprays are also very effective in suppressing an epidemic, but trees must be treated with excellent coverage. Successful DED control requires a well-organized, long term commitment in a community where the resources are available for sustained management. If there is even a temporary cessation of control practices where there is available healthy host type, then resumption of an epidemic is likely.



Figure 2. Groups of elms in advanced stages of colonization by the Dutch elm disease pathogen.
Photo by D.N. Appel

Beyond practical considerations, the recent outbreak of DED in Flower Mound raises some interesting questions about the pathogen. *O. novo-ulmi* has been transported

repeatedly over the globe during the past 75 years and has undergone some significant genetic changes. These changes have resulted in new subspecies of the pathogen that have increased in virulence and have developed a greater capacity to decimate elm populations. The genetic status of the pathogen in Texas, however, has not been studied. Current range maps of the newer strains in North America do not extend into Texas. Although these considerations may appear to be merely of academic interest, this dangerous pathogen may yet have the ability to cause extensive damage in our elm populations and it needs to be closely monitored.

David Appel is professor of Plant Pathology and Microbiology at Texas A&M University.

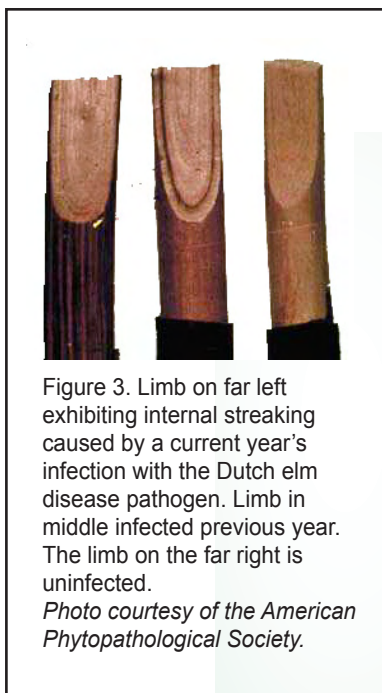


Figure 3. Limb on far left exhibiting internal streaking caused by a current year's infection with the Dutch elm disease pathogen. Limb in middle infected previous year. The limb on the far right is uninfected.
Photo courtesy of the American Phytopathological Society.



<http://hort.ufl.edu/woody/palmpruning.html>

Proper palm pruning techniques

<http://www.hortificopia.com/edgilman.htm>

Where to find excellent plant images

<http://tinyurl.com/64e66h>

Horse vs. tree

http://insurancenewsnet.com/article.asp?a=top_pc&q=0&id=99980

Mitigation of tree risks saves money

<http://news.scotsman.com/latestnews/The-diesel-that-grows-on.4656287.jp>

Fungus that can be made into bio diesel

<http://webeoist.com/2008/11/03/strange-rare-bizarre-endangered-flowers-plants-and-trees/>

Rare trees

<http://www.kimmerer.com/sudden-oak-death-threatens-ancient-trees-in-england/>

Sudden oak death found in England

<http://www.ndsu.nodak.edu/instruct/stack/TDI/>

Illustrations of plant diseases

http://www.cape-coral-daily-breeze.com/page/content_detail/id/500140.html

Local council votes against planting trees in the wrong place.

<http://www.allianceforwaterefficiency.org/>

Water saving site

<http://www.soilmoist.com/products/index.php>

Water polymers

—links sent in by Pat Wentworth

<http://www.environmentalgraffiti.com/green-living/tree-house-hotels/3591>

The five most inspiring tree house hotels

<http://www.treehugger.com/files/2008/11/tree-museum.php>

Tree museum by Ilkka Halso

http://www.epa.gov/air/grants_funding.html

Sustainable Skylines grants

<http://www.statesman.com/business/content/business/stories/other/11/26/1126pecan.html>

Texas pecan crop hit hard by drought

—links sent in by John Giedraitis

Urban Tree Canopy Publication Available From Conference of Mayors

An important new publication – “Protecting and Developing the Urban Tree Canopy” – is available on line from the US Conference of Mayors.

The report was released at the Arbor Day Foundation’s Partners in Community Forestry national conference on November 19. It was commissioned by the organization’s Community Tree Task Force currently co-chaired by Palatine (IL) Mayor Rita Mullins and Sacramento Mayor Heather Fargo. The 39-page report can be downloaded at

<http://www.usmayors.org/trees/treefinalreport2008.pdf>

A 135-city survey found 84% of cities view their tree activities as part of their overall sustainability and/or climate protection efforts. Community trees leverage the social, economic, and environmental value of cities, with forestry and related industries providing employment for over 1.6 million people and contributing \$231.5 billion to the U.S. economy.

Also, a series of news releases, national news reports, and resource guides for mayors is available on the Community Trees website:

<http://www.usmayors.org/trees/>

“Go Easy on the Trimming,” Says the Editorial

An editorial in the Shreveport, LA paper regarding line clearance work reflects a controversy over trimming trees in that city. As with all things, it is hard to identify a happy medium that will please everyone, and the proposed tree ordinance revision could create unintended reliability or rate issues. Here is an excerpt:

Go easy on the tree-trimming

Gouges in Shreveport’s leafy canopy that utility crews call pruning and others call hacking is moving City Hall to possible revision of its tree ordinance.

The revisions are overdue, particularly after the notoriety from last summer’s pruning along power lines at Centenary College.

Rather than begin with increased oversight, collaboration and awareness of right of way pruning programs, the city’s public works office is offering up a more direct approach for City Council consideration: excessively pruning a tree could cost you a \$500 fine.

It’s an issue of aesthetics. Centenary College is a great asset to the city but the trimming by SWEPCO contractors created unsightly scar tissue along its Kings

Highway boundary. There have been other complaints, primarily in South Highlands.

But trees also have an environmental role in cooling down a city and cleansing the air. Commercially, trees add value to a home.

That said, no one wants power outages during ice storms, which is the justification for aggressively pruning trees to keep falling limbs off electrical lines.

The entire editorial is at <http://www.shreveporttimes.com/article/20081209/OPINION03/812090337/1058>

—James Koenig

YES WE’RE IN COLOR TOO!

If you’re currently reading our print edition, don’t forget <http://www.isatexas.com/Members/Newsletter.htm>, where you can download this issue in color and with clickable links. Previous issues are also available.

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H How to Restore Trees After a HURRICANE

by
Edward F.
Gilman

In the aftermath of a hurricane, the process of restoring trees begins with the immediacy of removing hazards and cleaning broken limbs and dead stubs from the tree canopies, with the eventual goal of returning shade and beauty to the community with reduced risk. A careful, initial inspection can identify which trees can be restored. The structure of the tree should be intact, without any visible cracks or large wounds on the main trunk, limbs or main roots. Many trees can recover from complete leaf loss or significant damage to the canopy, including several broken limbs, but major trunk damage is often irreparable. The following steps outline the process for responding to tree damage following a hurricane.

Step 1: Get help removing potential hazards.

If a limb has fallen near power lines, make sure that a qualified line-clearance arborist treats the situation. Working near electricity is highly dangerous and may result in a fatality for workers who do not follow proper safety procedures. Large hanging limbs and leaning trees that could fall on any potential target also present a direct hazard and should be mitigated as soon as possible by a professional.

Step 2: Stand up and stake small fallen trees, and provide irrigation as needed for stressed trees.

Standing up small, fallen trees is a priority because the roots dry out quickly. Larger staked trees with a trunk diameter greater than four inches have a greater chance of blowing down again in later storms due to slower root regeneration. Recently planted trees, however, can be re-staked at any size, because they have not established large roots that could have been broken and severely damaged at the time they fell. These trees should be treated as new plantings, and staked with the help of a professional.

Research on the effectiveness of different staking methods shows that some systems work better than others. Root ball anchorage systems work very well to stabilize trees in the soil. Rigid systems can work, but they need to be adjusted or removed within six to twelve months.

Steps for standing up trees that have fallen:

1. Keep the roots moist.
2. Excavate a hole to accommodate roots.
3. Use sharp tools to make clean cuts on jagged or torn roots.

4. Pull the tree up as straight as possible, taking care not to damage the trunk or roots.
5. Fill the hole with soil from the site, but avoid burying the trunk flare.
6. Irrigate the tree with the same frequency as newly planted trees. Also, apply water during dry periods. Do not fertilize for one year.
7. Install a staking system. Remove or adjust stakes after six months to one year.

Root growth is necessary for tree recovery after the storm, and keeping the soil moist will encourage formation of new roots. If the damage occurs just before a dry period, trees should be irrigated as needed to help them recover. When irrigating staked trees, two to three gallons of water per inch of trunk diameter should be sufficient. Apply water directly to the root ball. Irrigation is not needed if the root ball is already saturated or wet from heavy rains. Significant tree dieback due to salt damage can occur in coastal areas that receive storm surge from hurricanes. Irrigation treatments can remove salts from the soil by flushing them out. This should be done immediately after the storm.



After hurricane damage, sprout removal and sprout reduction is needed so that remaining sprouts can become branches. Photo is of a pin oak (*Quercus palustris*).

Step 3: Clean tree canopies.

The purpose of canopy cleaning is to remove potential hazards, such as dead and cracked branches and broken limbs. Canopy cleaning also includes smooth pruning cuts behind broken branch stubs to allow new tissue to develop properly and close over wounds. ■

How to Restore Trees After a Hurricane *Continued*

When cleaning palms, remove dead fronds that could fall and hit a target. Also remove fronds that are smothering the bud so that new growth is not suppressed. Bent, green fronds should be left attached to the palm until new fronds emerge.

Stressed trees need to access energy stored in their limbs in order to recover. The storage compounds are necessary for the tree to sprout, produce new leaves, and defend itself against organisms that cause decay. It is better to leave the tree looking unbalanced and misshapen than to remove large portions of the live canopy at this time. Shaping can be done later as part of the restoration process.

Removal Cut

A removal cut removes a branch back to the trunk or parent branch. After a hurricane, a removal cut is used to eliminate broken, cracked, and hanging limbs. Hanging and detached limbs should be removed first so that branches do not fall and cause injury. Binoculars may be used for a closer look to be sure there are no cracks along the large, main branches. Arborists should climb trees to check for cracks and other structural defects before investing in restoration pruning. A branch with a crack can be a hazard, and should be removed if there is a target nearby.

Reduction Cut

A reduction cut shortens the length of a stem by pruning back to a smaller limb, called a lateral branch. Ideally, the lateral should be at least 1/3 the diameter of the stem being cut. This type of cut is used for making clean cuts behind jagged tips of broken branches.

Heading Cut

A heading cut is made at a node along the stem and leaves a stub. A node is the bud area from which a branch sprouts, sometimes visible as a line around a stem or a slight swelling. When there is not a live lateral branch present for making a reduction cut, a heading cut is a better choice than removing the branch since removal of large limbs can take away too much live wood, causing decay and disrupting canopy balance. This can result in poor health or tree failure in the years to come.

Recovery and Restoration

Several factors which determine the recovery period that are needed before initiating restoration pruning include tree age, size, species, health, and the extent of damage to the tree. Allowing time for sprouts, or epicormic shoots, to grow along the top and at the tips of branches will rebuild the starch reserves and other energy-storing compounds, restoring tree vitality over time.

Restoration pruning begins with sprout management, which trains sprouts to grow into strong branches that build structure back into the tree. The first pruning visit to



Reduce some sprouts and remove others so that the retained sprouts can grow into branches without interference. Photo is of an American elm (*Ulmus americana*).

damaged trees should occur about two or more years after the storm with a goal to reduce some sprouts, remove others, and retain the most vigorous sprouts that have developed side branches. Sprouts should be removed or pruned so that none of them cross or touch one another.

Patience is important in the recovery process. About a year or two should be allowed between pruning visits. The objective of the second and third visits is to continue sprout management, keeping the most vigorous, branching sprouts as new branches and reducing or removing competing sprouts. Any dead branches should be removed. The final goal of sprout management is to form the new branch leader on broken branches tips and close over the pruning cut.

Palms may experience nutrient deficiencies after a storm, which cause fronds to turn yellow or brown. A fertilization program should not be established for at least six months after storm damage to allow time for new leaves to begin growing. Yellowing or browning fronds still provide energy for growth, and removing too much foliage reduces the palm's vigor. Overpruning and using the wrong fertilizer are the two most common mistakes made with palms.

A restoration pruning program typically lasts from two to ten years and perhaps much longer for large and severely damaged trees. With a team of professionally trained commercial and municipal arborists who provide routine tree maintenance with appropriate pruning practices, communities recover much faster after a hurricane.

This article originally appeared in the December, 2008, issue of Arborist News. Copyright © International Society of Arboriculture. Used with permission.

Ed Gilman is a professor at the University of Florida—Gainesville. Photos courtesy of the author.

WHAT'S A



WORTH?

by G.P. David, RCA/BCMA

With all the drilling rigs and pipelines being slapped-in around the state these days, trees are coming down right and left. Add to that the tree losses caused by fires, car crashes, herbicides, and wrongful removals, and landowners quite often need to determine the value of a tree.

Tree appraisers often utilize all or part of a complex set of guidelines provided by the Council of Tree and Landscape Appraisers to calculate the value of a tree. Factors like a tree's age, type, condition, and size all play important roles in determining its appraised value.

When it comes to placing a value on a tree in Texas, however, the circumstances behind a tree's removal can be just as important as the tree's vital statistics. Trees are valued differently depending upon the nature of the claim. The appraised value of a tree destroyed during an automobile accident may be many times more than the value of the same tree taken during an eminent domain proceeding.

"How can a tree be worth \$30,000 when the land it sits on can be purchased for \$10,000 an acre?" This is a question that tree appraisers face every day. The answer lies in the complexities of the law in Texas.

A tree appraiser's first task is to determine the "valuation approach" appropriate for the situation. Landowners typically need a tree appraisal for one of five reasons: lawsuits, insurance claims, land

negotiations, eminent domain proceedings, or IRS casualty losses.

As an example of a lawsuit scenario, let's say that a bulldozer operator is clearing property for a new gas pipeline and accidentally (or deliberately) pushes down a bunch of trees outside the pipeline easement. This is known as "wrongful removal" of trees. The landowner typically files a claim or lawsuit and demands to be compensated for the damaged trees.

In Texas, legal precedent states that the first test of tree value in cases like this is the difference between the real estate market value of the land before and after the tree damage. If that reduction in market value is very low – *de minimis* – as a lawyer would say, then the courts have held that the landowner may be compensated for the "intrinsic" value of the trees. Unfortunately, the courts haven't defined "intrinsic value" very well.

Many plaintiff's attorneys hold that "intrinsic value" is the same as "restoration cost." Tree values based on restoration costs can often greatly exceed the real estate market value of the property. Restoration costs for heavily-treed land can easily exceed \$500,000 per acre.

Defense attorneys usually argue that "intrinsic value" is more closely related to tangible benefits that the landowner derives from the trees, which is almost always a vastly lower number than the restoration-based appraisal amount. Both sides typically have tree appraisals prepared based

upon their respective interpretations of the law and then fight it out in court.

Tree values for simple insurance claims can often be more easily calculated. Let's assume that a car veers off the road and destroys a red oak with a four inch diameter trunk. For small trees, most insurance adjusters accept appraisals based upon the actual replacement cost of the tree minus a deduction if the original tree had any health or structural defects. For larger trees, tree values are often determined by a formula. For multiple tree losses or when appraised values become very high, insurance companies tend to litigate – so simple replacement cost valuation approaches become difficult to defend.

There are many other types of tree value. Many homeowner's insurance policies have an artificial \$500 cap on the amount paid if a tree is struck by lightning. This is an example of a "contractual" tree value. Both the landowner and the insurance company have contractually agreed (through the insurance policy) that the compensation for the tree in the event of a lightning strike will not exceed \$500.

If that same tree is demolished by an automobile, however, the driver's insurance company may have to pay many thousands of dollars to compensate the landowner for the tree. The damage to the tree now becomes a legal tort situation, so the tree's valuation-basis usually reverts back to the higher restoration-based approach. ■

WHAT'S A TREE WORTH? *Continued*

IRS casualty losses for tax purposes are a completely different ballgame. In fact, the IRS has stated that arborists' tree appraisals are specifically not acceptable for claiming casualty losses for trees.

Tree values for eminent domain proceedings are usually tied to the tree's "contributory value" to the real estate market value. In most cases, especially for native trees on rural land, these contributory values are quite low. If individual trees provide specific benefits to the property, such as screening undesirable views or shading the house, then courts may allow landowners to be compensated to recover some or all of that functionality.

A good tree appraiser combines a broad knowledge of trees with a thorough understanding of appraisal theory. Unfortunately, the 9th Edition of the *Guide for Plant Appraisal* doesn't offer enough insight into the underlying theory of appraisal to be of much help. CTLA has promised to more thoroughly explain the underlying theory of the various valuation components and approaches in the upcoming 10th Edition of the *Guide*.

Gregory P. David is a Registered Consulting Arborist and Board-Certified Master Arborist based in Muenster, Texas. He can be reached at gpdavid@treeconsult.com.

Update on the 10th Edition of the Guide: CTLA Chairman, J. David Hucker, announced at the ASCA conference last month that work on the 10th Edition of the *Guide* is proceeding at a deliberate pace. Although no estimated publication date was given, the writing /reviewing / revision process should take another 24 months, at least. Most observers anticipate a 2011 release date for the 10th Edition.

Trees — A different shade of green Cities Look to Urban Forests As a Natural Utility

During his 1980 presidential campaign, Ronald Reagan famously blamed trees for emitting 93 percent of the nation's nitrogen oxide pollution. Trees were worse for the environment than automobiles, he said, a statement that fueled decades of "killer tree" jokes.

Twenty-six years later, cities in Reagan's home state of California are trying to live down his dendrophobic reputation. In October, Los Angeles kicked off an effort to plant 1 million trees, part of Mayor Antonio Villaraigosa's election campaign promise to become "the biggest, greenest city" in America. Civic leaders in the Sacramento area are considering an

even more ambitious effort: planting 4 million trees over the next 40 years.

The whole article by Fletcher Jacobs, High Country News, is at <http://www.hcn.org/issues/334/16680>

A tree is a tree - how many more do you need to look at?

-Ronald Reagan

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The ideal tools for demanding, high-volume tree work. Durable extended fiberglass poles with 12' reach and a pruning capacity of 1.25".
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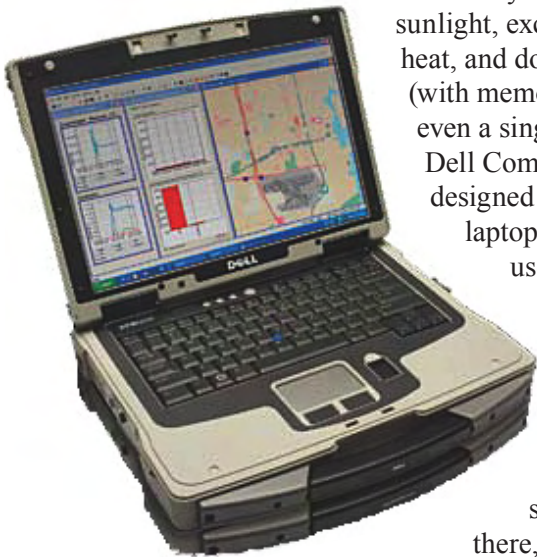
To find the STIHL dealer near you, call 1-800-GO-STIHL or visit stihlusa.com



Cool Tools by Patrick Wentworth Dell Latitude XFR Laptop

Perhaps this one should be called one "tough tool."

Almost everyone has a laptop now and you have to be so very careful with them. They don't like sunlight, excessive heat, and don't survive (with memory intact) even a single bounce. Dell Computer has designed the ultimate laptop currently in use today on the battlefields of Iraq and Afghanistan. If it will survive over there, it's likely to survive the summers in a Texas tree company truck. A little pricey at \$3700.00 but may be the last laptop you need for the field.



Go to : <http://www.dell.com/xfr> for all the details. Below are just a few of its specifications:

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- 36", 26 Drops on each face onto non-yielding surface
- MIL-STD-810F, Modified Method 516.5, Procedure IV

Operating/Non-Operating Temperature and Thermal Shock

- -20°F to 140°F (-29° to 60°C) Operating
- MIL-STD-810F, Methods 501.4 and 502.4, Procedures I + II and Method 503.4

Rain/Moisture Ingress

- 4 in/hr, 40 psi all 6 axes
- MIL-STD-810F, Modified Method 506.4, Procedure II
- Test done with I/O doors in place
- IP Rating of IP54-water and dust ingress

Salt Fog Protection

- Cycle 48-hour exposure cycles
- MIL-STD-810F, Modified Method 509.4

Dust Ingress

- MIL-STD-810F, Method 510.4, Procedure I (Blowing Dust)
- IP Rating of IP54 - water and dust ingress

Crash Shock

- 40g, 11 m/s & 75g, 6ms terminal saw-tooth
- MIL-STD-810F, Method 516.5

Hazardous Material Certifications

- XFR operated under intended use is incapable of causing ignition of specific flammable gas or vapor-air mix
- Optional UL 1604 Class 1, Division II for Zones A, B, C, D

Humidity: MIL-STD-810F Method 507.4

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Auburn University study: **Shade Trees Can Reduce Power Bills by 11.4 Percent**

AUBURN - An Auburn University study sheds new light on just how valuable shade trees are in reducing homeowners' electricity bills during hot summer months.

Professor David Laband in the Auburn University School of Forestry and Wildlife Sciences says electricity usage and costs will be 11.4 percent less if a house has just 17.5 percent heavy shade coverage. This is compared to a house with no shade.

"The keys are heavy foliage and late afternoon shade," Laband said. "The savings can be very significant for homeowners. Over the years I had read statements that shade trees reduce electricity consumption, so we wanted to put a dollar amount to it."

His office conducted a yearlong study of 160 houses in the Auburn area to determine the annual energy savings provided by shade trees, primarily looking at the months of May to September. He analyzed power bills, calculated shade coverage and surveyed the homeowners about household makeup, electricity-usage habits, square footage, type of air conditioning, appliances, roofing, exterior material and other factors.

"We looked at the amount of shade in the early morning, early afternoon and late afternoon," Laband said. "If you have trees on the west side of your house, you will have a much lower power bill."

Using local power company rates for kilowatt hours per day, Laband said the 11.4 percent savings would equal \$31 to \$33 per month. The study, which categorized types of shade into light, moderate and heavy, also found that a house covered with 50 percent of light shade will save 10.3 percent.

Thermostat settings were important as well. "For each degree you raise your thermostat, you will save 3.3 percent on your power bill," he said. "We also found that children under age 12 are the major power consumers in the home. They watch television, play games and leave lights on."

Laband hopes the study will encourage real estate developers not to cut down all the trees on new lots.

"Many older houses have large trees around them because the owners did not rely as much on air conditioning then," he said. "Houses today often do not have shade trees because it's easier to run an air conditioner. This study shows how much can be saved when trees are used in yards."

Auburn's study was funded by a \$116,000 grant from the USDA Forest Service's Urban and Community Forestry Program and a matching \$116,000 grant from Auburn's School of Forestry and Wildlife Sciences.

Laband has briefed USDA officials on the results and has presented seminars in Australia at the Tropical Forest Research Institute, the University of Melbourne and the University of Adelaide.

"It gets very hot there, too," he said. "They are interested in doing a similar project."

Laband, who earned his Ph.D. in economics from Virginia Tech in 1981, conducts research and teaches on topics related to economics and policy, with a focus on natural resources. He joined the Auburn University faculty in 1994 and the School of Forestry and Wildlife Sciences in 2000, where he is a member of the Center for Forest Sustainability and the Forest Policy Center.

– Charles Martin

The best friend on earth of man
is the tree. When we use the tree
respectfully and economically,
we have one of the greatest
resources on the earth.

– Frank Lloyd Wright

Calendar of Events

January 9 & 10 and 23 & 24

Arboriculture 101

College Station Conference Center, College Station

Highly regarded four-day short course designed to provide you with an in-depth knowledge of how to care for urban trees. Dr. Todd Watson, an ISA Board-Certified Master Arborist, integrates research and practical experience in his teaching style. For details contact Dr. Watson at 979-218-0783.

January 10 - 11

Certified Tree Worker Workshop, Ft. Worth

Workshop may be filled by the time this is printed, so check with Nevic Donnelly at 512-922-7058.

January 30

**Healthy Trees: Invasive Pests and Disease Workshop
Houston AgriLife Extension Office**

One-day workshop professionals who manage or maintain trees. Learn to recognize symptoms and control methods for Formosan termites and oak wilt, and how to find and treat hidden root problems. Presented by the Houston Area Urban Forestry Council. CEUs available. Download registration brochure at www.isatexas.com/images/pdf_files/workshops/2008_HAUFC_Pest_Disease_Workshop.pdf

January 17

ISA Certification Test, Mercer Arboretum, Houston

The application must be in the ISA office 12 working days prior to the Exam.

http://www.isatexas.com/Members/Certification_Information.htm

February 22 – 27

**The Municipal Forestry Institute (MFI)
Palm Key Center, Ridgeland, SC**

A week-long intensive educational program for urban forestry professionals. Covers leadership and management tools for shaping a successful community tree care program. For more information and to register: <http://www.urban-forestry.com/mc/page.do?sitePageId=50685&orgId=sma>

March 19

ISA Certification Test, Round Rock

The application must be in the ISA office 12 working days prior to the Exam.

http://www.isatexas.com/Members/Certification_Information.htm

April 6

ISA Certification Test, Fairmont Hotel, Dallas

The application must be in the ISA office 12 working days prior to the Exam.

http://www.isatexas.com/Members/Certification_Information.htm

April 6 – 8

Trees & Utilities National Conference, Dallas

A forum for utility professionals, community foresters, and concerned citizens to exchange ideas and explore ways to work together to accomplish the dual goal of growing healthy community forests and providing reliable, low-cost utility service. Hosted by the National Arbor Day Foundation. For more information:

<http://www.arborday.org>

April 24 – 26

**Texas Forest Expo,
Lone Star Convention Center, Conroe**

Classes, workshops and interactive booths and exhibits for homeowners and landowners, plus learning activities for children. The expo's motto is "Building forests one backyard at a time." For more information go to

<http://tfsweb.tamu.edu/conferences/texasforestexpo/>

May 1

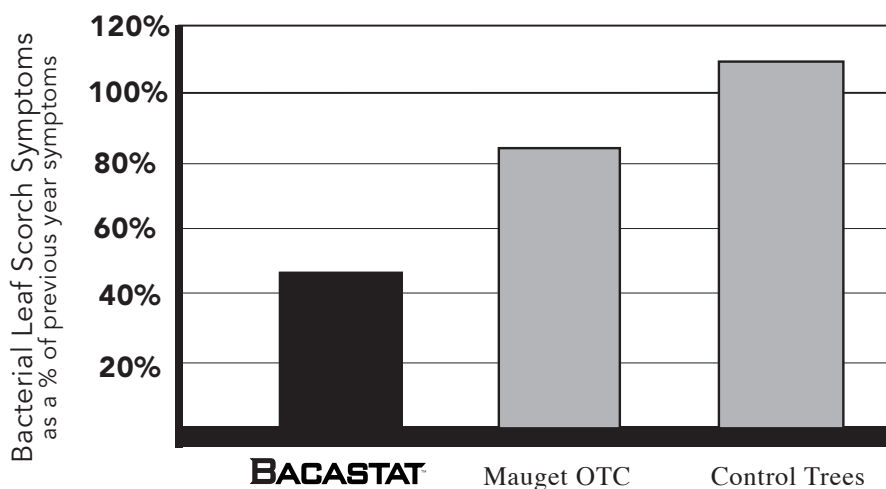
**ISA Certification Test, CPS Energy Training Center
Auditorium, San Antonio**

The application must be in the ISA office 12 working days prior to the Exam.

http://www.isatexas.com/Members/Certification_Information.htm



Bacterial Leaf Scorch



Evaluations were made on October 2, 2007, which was 4 months after treatment Dr. John Hartman, U of Kentucky

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