



## Limbing and Bucking Felled Trees

This month's theme is practical field work. Adapted from Jeff Jepson's new book, the CEU article is a detailed chapter on the process of safely and successfully limbing and bucking felled trees. **Page 12**

## Roots of Change

Ed Gilman discusses seed germination and root management in relation to nursery containers. **Page 20**



## 2009 Arboriculture Fellowship

There were two recipients of ISA's annual student fellowship this year. Read about their contributions to ongoing projects within ISA's Educational Goods & Services department. **Page 22**



## The Case of the Bolts from the Blue

Lightning struck, and did major damage: Can Dendro and his team help manage the loss to the owner? **Page 24**

## Recycling Paper

If *Arborist News* prints on recycled paper, what all must be considered? This feature article looks at the process of repurposing paper, and its role in the global recycling movement. **Page 26**



## 2009 ISA's Conference Highlights

Check out the highlights from this year's conference event. **Page 30**



## Climbers' Corner: Safer Ascent into Trees

Mark Bridge and Chris Cowell provide an extended discussion on the different methods used in properly and efficiently ascending into a mature tree. **Page 46**

## Certification Information: ANSI Accreditation

If you're an ISA Certified Arborist, be proud to know that your credential is now verified by the American National Standards Institute. ISA's Certification department has the details. **Page 58**



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## DETECTIVE DENDRO THE DIAGNOSTIC SLEUTH

By Guy Meilleur

# The Case of the Bolts from the Blue

One Saturday morning, my assistant Codit Clutz joined his climbing companion, utility arborist Electra Cline, and their friends O.T. and Bull for a recreational climb. I wanted to join them on their next low-impact adventure, so I practiced setting my ropesaver in the big oak in the back yard. I almost had the hang of it when a thunderstorm

moved in with a cold wind, so I took my gear inside. I heated a bowl of onion soup and turned on some cool jazz to help me refocus on those knots, but the phone rang first.

“Detective Dendro, this is Blanche DuBalanus.” Her husky voice pleasantly resonated in my receiver, while its excited edge sizzled all my senses. “A bolt of lightning just split the sky and struck my tree! My insurance company requires an arborist report. The agent said the tree might not have to be removed, and I do hope that is true.”

“Me too! We try to keep trees green and growing,” I agreed. “Please let me have your agent’s number and e-mail me some pictures, so I can define my assignment. Then we can schedule an inspection.”

I entered the number into my phone, said goodbye, and tapped “Call”. A businesslike voice on the other end greeted me. “Lowball Insurance.”

“This is Detective Dendro, at your service. I’d like to know how I can help resolve Ms. DuBalanus’ lightning damage claim.” I quickly learned that the damage to the tree had to be documented, and the replacement cost of any damaged tree must meet or exceed the amount of coverage before they would pay on the claim. Unlike most carriers, Lowball Insurance did not pay for assessments, and they had a low cap on the payout per tree, so a full appraisal was not needed. Blanche had to pay me, and she was my client.

Analyzing the pictures Blanche sent on my computer screen, I zoomed into details on other trees near the damaged tree. Making an educated bet, I proposed to spend three hours inspecting the trees on site and writing the report, and she hesitatingly agreed.

The DuBalanus place was near the rec climbers’ park, so I invited them all to stop by to see the lightning damage when they were done. I met four sweaty and happy arborists in the cul-de-sac, and we walked to the backyard. “Dendro, meet O.T. and Bull, of Yankee Tree Tenders—WOW, that bark is really blown away!” Electra exclaimed as we rounded the corner, shocked at the shards and splinters of bark and wood. “This tree is toast.”



The large tree on the left has lost its bark and will become firewood. The other three trees appear normal.

“You’re right. You Yankee guys are welcome to bid the removal. You may want to put on a big belt if you get the job,” I added.

Codit slid his thumbs along his waist and said, “Big belts get in the way of my saddle; I’d rather wear small belts like this.” Bull hid a smile.

“We can talk about that later,” I said. “Right now maybe you and Electra can go on the clock and help me with this report. How about filling out this field form for appraising replacement cost? Let me know when it gets tricky.” Still confused about the belt question,

Codit grabbed the form and started writing Blanche's address. "Electra, let's look more closely at the trees. What do you see?"

"Well, this biggest white oak (*Quercus alba*) has only a 4-inch (10 cm) wide strip still stuck to the wood," Electra noted, her mallet striking the strip of living bark still stuck to the tree. "But you can see that; what can I add?" Before I could answer, a guy with a rake emerged from a stand of dogwood and azalea to the north, and came up to Codit.

"Hi, I'm Louie Landlubber, and I live next door. Some lightning strike, huh? Can I have the firewood? We all know that global warming stuff is radical propaganda. I expect global chilling, so I'm stocking up on oak," he said with a laugh. "What's that form you're filling out?" he asked, looking over Codit's shoulder.

"Speaking of chilling, you'll have to talk to the removal contractors about firewood." Codit eyed him suspiciously. "We're consulting today—assessing tree condition and appraising replacement cost. Dendro always recommends ISA Certified Arborists like O.T. and Bull here to work on trees."

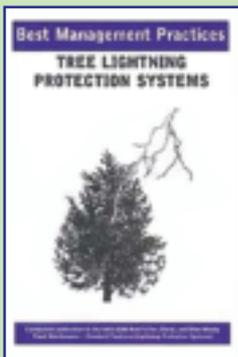
"Replace the tree!" Louie scoffed. "I am a real estate appraiser, and tree value is not even in our formulas. How could this tree be worth anything beyond the value of the wood, or other market value?" he scoffed. "Anyway, I'm sure Blanche will enjoy having a bigger yard to garden in, and I sure won't miss raking all these leaves!"

Out of the corner of my eye I saw a tall woman with russet-brown tresses exiting the back door. The fluid motions of her arms and legs as she strolled was pure poetry, like the oak limbs high above waving away what was left of the storm. Her gray overalls did nothing to hide her supple form as she came up and extended her hand. I gulped and shook it, gently. "Detective Dendro, thank you for coming. So far I have one estimate for removing my poor tree, and it's **the coverage limit per tree times three, on top of your fee, and it's all on me!**" she added painfully, turning her pocket inside out for emphasis.

Confusion was raining all over, so I spoke up. "Blanche, you have an etymological connection to your trees. When we complete our inspection, you may see that the cost of our work will be repaid to you several times over. Electra, take the handsaw out of your scabbard and put in that rubber mallet, so we can get the info that Blanche needs. Louie, you are fortunate to live in the Northern Hemisphere—the answers to all your questions are as clear as the sun coming out behind those clouds. Codit, the belt I am talking about is at least six inches wide. Now, I believe I see some sweet onions growing in the garden—Blanche, may I snack on one while you and I take a quick look at the rest of your trees?"

*Is Dendro just saying what people want to hear? Turn to page 72 for the solution.*

## Best Management Practices: LIGHTNING PROTECTION SYSTEMS



This handy publication contains a research-based explanation of basic lightning physics and the installation and maintenance of lightning protection systems.

Best Management Practices are written as explanatory guides for applying the ANSI A300 standards in daily tree care practice. (© 2008, softcover, 41 pp., glossary).

#P1315

Retail Price: \$10

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## WHAT'S THE SOLUTION?

Our ring-around-the-house quickie tree inventory complete, I tucked my camera into my cargo pocket and slapped the Velcro shut. "I'll e-mail you some pictures along with some notes about other trees with risk factors in range of the house. Their health and safety can be improved with simple arboricultural techniques."

"Simple as this?" Electra asked, tapping a trunk with the rubber mallet. "A hollow sound might mean the bark has been detached by lightning, right? And look at these splinters stabbing these other three oaks. If the force from the blast was that strong, shouldn't we climb these trees with mallets and check the bark all the way up?" She turned to smile at Codit, but he already had his saddle on, and was aiming to fling his throw-weight. "I'll take the next one."

"And I'll take the third," I jumped in, threading my line through the rope-saver and handing it to Electra. "Flip my rig up in the top when you get up that way, will you please? Now, where was I... Codit, your wardrobe is not malfunctioning; that crack in the trunk might open up under rigging loads, so a compression strap is used to make it safe to rig. Louie, with this tree gone, your flowering plants will be roasted by solar radiation. You might want to invest in some kind of shadecloth, and some arboriculture to see them through the shock. Over the tree's life it could have saved Ms. DuBalanus far more in cooling cost than timber and firewood value, and shade is just one of many benefits this tree contributes. Now, up we go!"

After tying in, we used our mallets and knives and measuring tapes and cameras to **locate, trace, and document bark damage in the other three oaks** that was consistent with recent lightning damage. Working our way down, we compared observations as we checked above the main forks, where lightning often does the most damage. Gracefully

sliding to the ground, Electra told Blanche, "The detached bark on these three trees is primarily on the sides facing the big oak. Evidently the lightning flashed from the sides of the big oak, and the force boiled the sap in adjacent trees."

"You are an astute aerialist," I complimented her. "Sideflash is a common phenomenon, so adjacent trees should always be inspected. Moreover, my experience with transplanting trees tells me that replacing even this smallest tree would cost more than the policy limits. Therefore, **your insurer may compensate you for all four trees**, though three of them may make it with a little care. Start with mulching—tree services transform the branches into woodchip mulch, and they can spread it four inches deep in your natural areas, keeping it clear of the trunks."

"Louie, you may need to trade in your rake for a pitchfork and mulch your plants, to lessen root stress from sun exposure. Fortunately, since we are north of the equator, they will have some time to acclimate before next summer." I turned to face Blanche, a pleasant task. "Your first name means 'whiten', and your surname means 'oak', so these white oaks should bring you no harm, financial or otherwise. In any case, your accountant may be able to factor in the cost of our appraisal and any unreimbursed casualty loss to the property at tax time."

O.T. and Bull gave her their estimate, and she smiled wide. "Detective Dendro, you can come back and enjoy my garden any time. I can't thank all of you guys enough—it looks like your aerial inspections will save me a lot of money," Blanche said, squeezing my hand. "This news is such a pleasant surprise—it's hit me like a...like a..."

"Bolt from the blue?" Codit and Electra laughed in unison, slapping five. "We love making money in trees without cutting them!"

### References

- Harris, R., James R. Clark, and Nelda P. Matheny. 2003. *Arboriculture: Integrated Management of Landscape Trees, Shrubs, and Vines*. Prentice Hall: NJ. 592 pp.
- ISA Lightning Symposium Proceedings. 2007. Tom Smiley (Ed.) <[http://www.isa-arbor.com/publications/Lightning/Summaries/Meilleur7.2.07\\_LP\\_edit.pdf](http://www.isa-arbor.com/publications/Lightning/Summaries/Meilleur7.2.07_LP_edit.pdf)> and <[http://www.isa-arbor.com/publications/Lightning/PdfPresentations/Meilleur\\_LightningMitigation.pdf](http://www.isa-arbor.com/publications/Lightning/PdfPresentations/Meilleur_LightningMitigation.pdf)>.



**Splinters stabbing the adjacent tree are dramatic, but they are not the problem. When Dendro saw the holes below the splinters, he hypothesized cambium death due to the lightning blast. Due to this damage in the three adjacent trees, the insurance payout was quadrupled.**

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