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# Arbor Notes

**Almstead Around Town** Fall/Winter 2013



How can you be sure that your tree care provider provides safe, high quality, customer-focused service? Look for TCIA Accreditation.

For a long time, the Tree Care Industry Association has set the standards for best practices in arbor care. Recently, they have instituted a formal accreditation process. We are proud that all four of our branches have passed their stringent standards.

We have been *thoroughly* inspected! TCIA representatives have checked our equipment and safety procedures, our employee training, our customer service and marketing protocols, and even

our finances and business plans. The accreditation process helped us take a fresh look at how we can continue to develop in quality, safety and efficiency; we hope you'll notice our improvements.

Unlike many companies, Almstead passed the rigorous hurdles on the first try -- because we were already meeting some of the highest safety and service benchmarks in the industry: our own.

### Tree Planting, Tree Climbing and Dinosaurs

Since our Spring newsletter, our arborists have been busy in many community activities. In May, we participated in the Norwalk Tree

Festival where we donated a tree in memory of Don Nelson one of the originators of the Festival. We also ran our always-popular tree climbing station for children.

The Almstead Prehistoric Garden opened in Glen Rock, NJ at the Thielke Arboretum (see back page).

For many years we've been working at the Wave Hill Public Garden and Cultural Center in the Bronx. This year, Almstead became the Corporate Sponsor for their Horticultural Program. In addition to our sponsorship, we auctioned off our CEO, Ken Almstead -- or at least his expertise -- to an enthusiastic crowd at the Wave Hill Annual Gardeners Party in September.



Tree Climbing in Norwalk

## Request a Consultation

Please contact me to schedule a complimentary Seasonal Inspection with a professionally certified Arborist.

### I'm also interested in:

- Arbor Care** Customized pruning, mature tree preservation, tree and stump removal...
- Plant Health Care** Fertilization, disease and pest control, monitoring programs...
- Organic Care** Compost teas, organic pest controls, natural soil and root care...
- Consulting** Tree risk assessment, mature tree preservation, construction protection...
- Lawn Care** Fertilization, weed control, seeding, core aeration, organic options...

Name \_\_\_\_\_  
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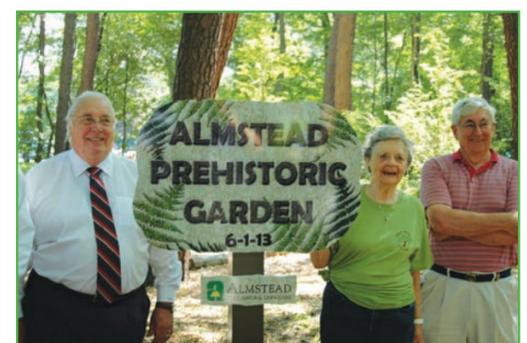
## Land of the Dinosaurs in Glen Rock

Glen Rock, NJ is home to the Thielke Arboretum, a nature center developed by a tireless group of volunteers led by Carol Thielke, in whose honor it is named.

On June 1, a new section of the arboretum was officially opened, the "Almstead Prehistoric Garden." Alan McCullough, Branch Manager of our New Jersey office, has worked with Carol Thielke to create an environment filled with trees and plants that have changed little through the millennia. Ostrich ferns cover the woodland floor among Dawn Redwoods, Sassafras and Sweet Bay Magnolia. A huge dinosaur nest can be seen through the trees waiting for the return of its occupant.

One of the main missions of the Arboretum is education. The volunteer staff works closely with the Glen Rock Public Schools to develop a curriculum for experiential learning. They now provide several programs for area schools, as well as workshops for the larger community. We hope the Almstead Prehistoric Garden will transport generations of school children to the time when dinosaurs roamed New Jersey.

**Take a stroll through the Thielke Arboretum.**  
**Where:** 460 Doremus Ave., Glen Rock, NJ, next to the pool parking lot.  
**Hours:** Dawn to dusk.  
**Admission:** Free.  
**Parking:** On-street parking.



Richard Almstead, Carol Thielke and Glen Rock Mayor John van Keuren at the opening of the Almstead Prehistoric Garden

## Biomechanics: The Science Behind Pruning



*How does an arborist tell if your tree is likely to fail? Advancements in tree biomechanics, the study of how forces such as wind and weight affect stability, are offering insight into why some healthy trees may be at risk, why other trees are stable despite decay -- and how to make trees safer through selective pruning.*

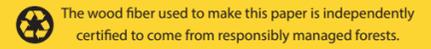
One of the most exciting fields within the science of arboriculture today is tree biomechanics. Researchers are using engineering principles to develop new models of how trees respond to damaging forces such as wind, and the weight of snow or ice. They are charting the relationships between age, height, girth and the density of wood. Tools such as the Resistograph (see inside) are being employed to look inside trees and evaluate the integrity of their cores.

What causes a tree to snap or uproot? Tree or branch failure is usually precipitated by an increased load, most usually due to wind velocity, although snow and ice can be responsible as well. In order to understand how wind affects trees, researchers attach sophisticated meters to upper branches to measure wind velocity and the oscillation (sway) of the branches. Tree branches move in complex patterns that include bending and twisting; the pattern of movement, along with the density of the canopy, determines how much load is transmitted to the trunk. Researchers also use mechanical force to measure how much force is needed to topple a tree or break a branch. Data from these experiments shows that selective pruning can often reduce this load and lower the risk of tree failure.

When arborists perform tree risk assessments, we look at factors such as the relationship of a tree's height to its diameter, the surrounding conditions, and whether there are any areas of weakness in the trunk or the branches that make them vulnerable to stress. For example, a tree surrounded by other trees will not experience the same wind load as a tree standing alone. A tree with rot or injury is more likely to fail at that specific point.

As research into biomechanics gives us more insight into the complex interplay between wind and tree canopies, we are able to translate this into a higher level of arbor care. *(continued inside)*

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 Image Credits: Emerald Ash Borer, courtesy of Pennsylvania Department of Conservation and Natural Resources - Forestry Archive, Bugwood.org

## A Letter from the CEO



The big news in this issue is Tree Care Industry Association accreditation! (see the front page) At Almstead, our arborists have always been certified individually; now, our company itself has passed a rigorous evaluation of best practices. TCIA accreditation is not mandatory: it is a demonstration of our willingness to meet the highest industry standards.

In the tree care industry, adhering to standards is often voluntary. Without an objective certification process, anyone can pick up a chainsaw and start removing trees. Without proper training, both your property and the person wielding the chainsaw are at risk.

Tree care is a science. Proper pruning is much more than removing dead or intruding branches. A qualified arborist understands the dynamics of the entire tree and makes a plan to prolong its life and health. Does the load need to be lightened or redistributed by selective pruning? Are there weaknesses from disease or other damage that put the tree at risk? Has the tree become vulnerable because of the change in wind patterns caused by losing neighboring trees? The article on tree Biomechanics on the front page describes some of the research that is contributing to our knowledge of how and why some trees fail.

Lawn care is a science as well: essentially the science of soil. Advancements in understanding soil dynamics have led to a broader range of both organic and bio-rational options for developing healthy turf. The article below will give you more information on improvements in organic lawn care.

Next year, Almstead will celebrate its 50th year in business! I asked my father, Richard E. Almstead, our company founder, to comment on some of the changes he's experienced. He said, "Fifty years ago, there were no resistographs, no bucket trucks, and chainsaws were too heavy to bring into a tree. We broadcast sprayed to combat pests and disease. Today, our work is environmentally sensitive; we use integrated pest management. All I see for trees and shrubs is a good, healthy, future!"

Sincerely,

Ken Almstead, CEO  
International Society of Arboriculture Certified Arborist NY0335

## Have You Considered...

**Japanese Snowbell** is a small tree with graceful drooping clusters of white spring flowers and a pleasant fragrance. It has an open and airy presence that allows filtered light to reach plantings below it. It does not tolerate drought well, and will need to be watered during summer heat. When well-watered, it tends to be healthy and disease-resistant. Several cultivars are available including weeping and pink flowered trees.

**Latin Name:** *Styrax japonica* **Common Name(s):** Japanese Snowbell, Japanese Styrax

**Tree Type:** Wide spreading branches and multiple stems, make Japanese Snowbell seem like a transition between shrub and tree.

**Sun and Water Requirements:** Full to partial sun or light shade. Needs plenty of water and good drainage. Styrax will tolerate clay soils and prefers slightly acidic soils.

**Expected Growth:** Trees typically reach 20' - 30' in both height and width.

**Foliage:** Elliptic-ovate, glossy, medium to deep green leaves (to 3" long). Fall color is usually insignificant, however leaves may sometimes turn yellow to red.

**Flower and Fruit:** Pendulous clusters of white bell-shaped, waxy flowers with yellow stamens cover the tree in spring. The small, grey fruit in fall is not very significant.

**Landscape Value:** A star in spring, the Japanese Snowbell remains an attractive tree through all seasons. With its airy branch arrangement, it is a perfect background for shade tolerant shrubs or a garden bench. Gray bark fissures on older branches reveal orange inner bark which gives the tree added winter interest.



## Biomechanics

[continued from front]

Techniques such as cabling and bracing must take the entire biomechanics of the tree into account in order to successfully stabilize a tree branch. It's also possible to reduce the risk level of many trees by lightening the load through selective pruning, or balancing the load on a tree where growth is uneven.

Each tree has a different response to load based upon its species, age, history and growing conditions, among other factors. There is an enormous difference between the way a flexible young birch and a stately oak behave in high wind conditions. An arborist needs to understand the characteristics of each tree individually in order to evaluate, and hopefully reduce, the level of risk. When under stress, will the tree be more likely to lose a branch or uproot completely? Does the tree trunk contain rotten wood or cavities? How large are any cavities in relation to the size of the tree and depth of its hard outside wood?

Continuing education is the most important tool an arborist can have; biomechanics is just one of the areas where scientific research improves our ability to keep trees healthy and property safe.

### Resistographs

One of the tools of biomechanics is the Resistograph. The Resistograph contains an extremely narrow drill bit that electronically maps the resistance it meets as it goes through wood, providing a graphical map of the core density. This can be interpreted to identify cavities, rotten wood, and even the growth rings of the tree.

## Living Green and Having a Green Lawn

A lush green lawn is one of the pleasures of suburban life. As any homeowner knows, this doesn't happen spontaneously: beautiful lawns require attention. Unfortunately, many people worry that the products required to promote good turf are not compatible with an environmental conscience. If this were ever true, it certainly is no longer.

Many of our customers have beautiful lawns through total organic care. The aim of an organic lawn program is to develop healthy turf by improving the soil and providing the right growing conditions for grass. Fortunately, the perfect soil for grass is not the right habitat for most weeds. So, as the soil improves, a network of healthy roots develops and grass blades becomes stronger and thicker. The natural consequence is that the healthy turf will actually crowd out most weeds. Regular overseeding will also help your grass win its battle against weeds.

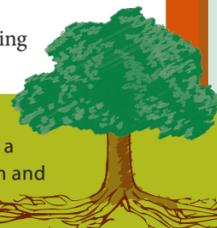
In order to maintain the right environment for grass, fertilizers are almost always required. Even with mulching mowers returning nutrients to the soil, additional help will be needed to meet the nutritional demands of thick turf. Whether you choose organic or traditional fertilizers, using the right amount is environmentally appropriate and is healthier for your lawn.

Compost is always a valuable amendment for soil, and it can be applied over an existing lawn. A light top dressing of compost will add live organisms that promote an organic growing environment. Many of our organic clients also use compost tea on their lawn. We custom brew and aerate our compost tea so that the beneficial microorganisms will be healthy and active when we apply it. This year, when fungus became a problem on many lawns, we didn't see as much damage on our compost-tea treated properties. Healthy soil will nourish your turf and provide the right habitat for the earthworms who will keep your soil aerated and promote drainage, continuing to the soil improvement process.

Managing lawn pests organically can be challenging. Milky spore treatments can control Japanese beetle lawn grubs, but other grubs and pests are not affected by it. Recently we've begun treating lawns with natural cedar oil. The cedar oil controls a wide range of grubs, but leaves beneficial organisms, such as ladybugs and earthworms, unharmed. Our first treatments appear successful.

Part of quality organic care is conscientious mowing. Mowing when the grass is 3" high will help to develop strong turf and also help to prevent the grass from drying out. Electric lawnmowers and more efficient hand mowers are environmentally sensitive alternatives to gas mowers.

As more people choose organic alternatives, more organic products are becoming available. Having a "green" lawn is a realistic option today.



## Emerald Ash Borer Update: It's Here: Act NOW!

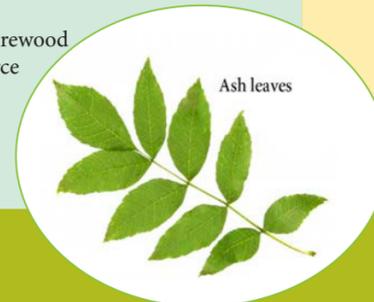


The Emerald Ash Borer continues its relentless progress into our area. Infestations have been found in Orange and Dutchess Counties in New York and throughout Connecticut. Westchester and Northern New Jersey are just a few flights away. This may be the last chance you have to save your ash trees.

Preventive treatment is important and effective. The beetle attacks all varieties of ash trees. Trees typically die 3-4 years after initial infestation. Once the beetle larvae have been deposited in a tree, the odds of saving the tree start to plummet.

If you are not sure whether you have an ash tree (they have compound leaves with 5-7 parts), call your arborist.

Please note: moving firewood has been a major source of new infestations. So please, don't move firewood.



## Get an Annual Check-Up

We all know the value of an annual check-up. Trees need them too. Just like ourselves, early identification of problems promotes better health, and lowers costs when treatment is necessary. There's no charge for an arborist inspection of your landscape. Just contact Almstead to set up an appointment.

To schedule an inspection, simply return the attached card. We'll make sure it gets to your arborist!

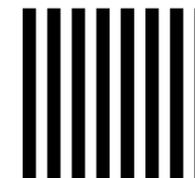


### Why Prune in Winter?

There are so many reasons -- including saving money. Your arborist can tell you more.

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### Antidesiccant Applications

Protect your evergreens from losing moisture through leaves or needles this winter with an organic antidesiccant application. Desiccation can lead to brown, curled foliage when spring arrives.

### Did You Fertilize Yet This Fall?

Call your arborist -- there's still time to develop a stronger root structure before winter. Your lawn and trees will thank you.