

# John B. Ward & Company, Inc.

## Winter 2012 **Timely Tree Tips**



We are proud to care for this beautiful weeping cherry tree in Wayne.

*A message from*  
**Jim Ward**  
*Certified Arborist*



As we begin our 55th year in business, I would like to take this opportunity to thank you, our customer, for your continued business and loyalty. It is because of you that we continually strive to improve our company to deliver the highest level of professional services for your trees and shrubs.

We often hear it said that “nothing remains the same” and “change is inevitable.” In many respects, these sayings have been ringing true within our company and our industry. Technology advances have greatly impacted our industry.

**We take great pride in providing quality service with a smile.**



Three generations of Wards.  
Jim, John and James at  
the company office.

Equipment improvements have greatly increased the productivity and safety of tree care operations. The newest soil treatments, trunk injections, and sprays have allowed us to improve the effectiveness of our plant health care programs in an increasingly sensible manner.

While we recognize and embrace positive changes, we are equally committed to making sure that some things stay the same. We hold client relationships in the highest regard. John Ward’s saying “treat clients in an honest and informed manner” will always ring true with our company. There will always be room for an old-fashioned work ethic and providing quality service with a smile. As society and business move faster, we realize we need to stay current; however, our core values will remain constant. We visit one property at a time, prune or spray or fertilize one plant at a time, and take a lot of pride in doing a quality job.

We begin 2012 with great enthusiasm for many reasons. The third generation of Wards, my son James, joined the company after graduating from Paul Smith College in May, 2011, and is currently developing his skills as an ornamental and large tree pruner. Jim Roach will be heading our safety committee after having been accredited as a Certified Tree Care Safety Professional. Hugh Darlington and Ken LeRoy have joined our company as Arborist Representatives; each bring over 25 years of horticultural knowledge to our company.

On behalf of our family and employees, we thank you for your continued confidence in allowing us to care for your valuable trees and shrubs.

### *In this issue*

Tree Assessments . . . . .	page 2
Resistograph Machine . . . . .	page 2
Mycorrhizae . . . . .	page 2
Biochar . . . . .	page 3
Zero Accident Culture . . . . .	page 3
Plant Health Care . . . . .	page 4
Tree Pruning . . . . .	page 5
Feature Tree . . . . .	page 6

# Tree Assessments

By Matthew Ward, ISA Certified Arborist

In 2011, several storms, including a hurricane, caused damage to numerous trees in our area. I distinctly remember the night of August 27, when Hurricane Irene generated high winds and heavy rain. My wife and I watched Adam Joseph, a Channel 6 meteorologist, recommend that viewers living in the Rosemont/Villanova area go into their basements because small tornadoes were in the area. I looked outside at the trees swaying in the wind and wondered how long it would be before our electricity went out. In the end, our neighborhood was fortunate — no significant tree damage occurred that night.

Especially in the weeks that follow storms, clients will ask us to provide our opinion about the safety of their trees. Here are some basic guidelines we incorporate into our Risk Assessments:

**Start with the tree's species and age**, and try to understand what the general area was like when the tree was planted. Was the tree planted before or after the house was built? Was the tree professionally cared for in the past?

**Next, perform a full examination of the trunk and root flares.** If ivy is present, pull it back and examine the root flares. If no root flares exist, further investigation is required. It is likely the grade was changed during construction. We look for areas of decay in the trunk and root flares and evidence of fruiting bodies that can indicate wood decay fungi. If decay exists, we need to investigate how the tree is responding to the decay. Often we will use our Resistograph machine to help determine how much of the wood is sound.

**Then we check the canopy of the tree** to see if the leaf size is consistent throughout all the limbs. Is there evidence of decline from the tips of the branches? Do limbs look exceedingly heavy? Is the branch structure sound enough to support future years of new growth?

**Finally, we check for signs of active insects or disease issues.**

We look at large trees through a tree preservation lens. Our goal is to develop tree preservation programs that will allow the next generation to enjoy the spectacular trees that are one of the unique components of our community.

**If you have any concerns about the safety of your trees, please give us a call to schedule a meeting.**



Tadd Leyman, ISA Certified Arborist, uses our Resistograph on a maple tree in Villanova.



This large ash tree appeared to have a solid trunk. We used our resistograph machine to test the trunk and found the tree to be hollow.

## Resistograph Machine

*A Risk Assessment Tool used by John B. Ward & Co*

The Resistograph is an instrument that helps us detect decay and cavities in trees. As a fine drill enters the tree, the resistance is measured and recorded. The Resistograph can provide important information by determining the amount of sound wood in a tree trunk.

Sometimes we use the Resistograph higher in a tree or on root flares, where wounds or questionable areas exist.

## Mycorrhizae

Over the years, and elsewhere in this newsletter, we have stressed the importance of root health to the overall well being of trees and shrubs. A relatively little known — but very important — component of a healthy root system is mycorrhizae. A mycorrhiza is a symbiotic relationship between a plant's roots and a fungus. Ordinarily, we think of fungi as being undesirable in terms of plant health, but mycorrhizae are critical for root and tree health.

The fungal component of mycorrhizae “infects” the fine roots and sends out long, thin hyphae that can increase the water- and nutrient-absorbing root surface by 80%. In return for supplying the plant with additional water, the fungus is rewarded with carbohydrates produced from photosynthesis. The increased root surface area allows plants to grow in the more difficult conditions we often see in the landscape.

Mycorrhizal hyphae are also much smaller than the finest root hair, enabling them to extract water and nutrients from more compacted soil. Additionally, mycorrhizae can grow through the “dead zone” that develops around the roots as nutrients are extracted and into more fertile soil. Plants with a normal mycorrhizal root system will withstand droughts and poor soil nutrition much better than plants without mycorrhizae.

The good news is that in nature, almost every tree and shrub is naturally mycorrhizal. There is no shortage of mycorrhizae in normal soil and roots are readily colonized. The bad news is that in many landscapes, there has been extensive soil disturbance and compaction that may have disrupted the normal mycorrhizal relationship. Products are available for arborists to use to establish new root colonization; these products have been shown to greatly increase performance, especially in new plantings on disturbed soil. We are excited to try mycorrhizal products in specific situations when we think the trees will benefit from them.



# Biochar

By Hugh Darlington, ISA Certified Arborist

*Black Gold...Texas Tea? Remember the Clampetts?*

There IS something NEW under the sun... only because it has finally been excavated after hundreds of years. But it's not the liquid Black Gold ol' Jed shot at — it's terra preta, or black earth. Also known as Biochar.

**Biochar.** Get to know it through  
**John B. Ward & Company.**

The product was unearthed via archeologists in South America several decades ago and, after much “scientific stuff” and “debating,” the world has come to understand (the general understanding is at the infant stage right now) that this is a really, really, beneficial substance for plant health and vigor.

Have you a plant that needs a shot in the roots? Our Root Remediation process gives the plant's roots an unparalleled quantity of organic matter. And Soil/Root Remediation has been the most beneficial thing you could do for your plant... until now.

John B. Ward & Company will now be adding Biochar to the mix we infuse into the root zone during our Soil/Root Remediation/Regeneration process.

Have you noticed how the name keeps growing? That's what happens to the plants that get the infusion... they keep growing, better than ever.



The idea of Biochar comes from the Amazonian rain forests of Brazil.

Amazingly, the dark earth is still evident today.

## Zero Accident Culture

### One accident is too many



Jim Roach and Antonio Arias prune a large sophora tree in Haverford.

Risk management theory creates various benchmarks to measure the effectiveness of safety programs. Our benchmark is simple — one accident is one too many. Each member of our team shares the same commitment to keep every coworker safe.

In 2011, Jim Roach completed the Certified Tree Care Safety Professional (CTSP) program offered by the Tree Care Industry Association. As a CTSP, Jim will have additional resources to keep our company abreast of the continually evolving safety regulations and industry standards.

When you see us working, you will notice hard hats, eye protection, ear protection, uniforms, and safety cones. Behind the scenes, we are meeting weekly to maintain a culture where one accident is one too many.



Jim Roach communicates the work plan to his team on a job site in Haverford.



# Plant Health Care

By Chris Ward, ISA Certified Arborist

Many pests that harm ornamental plants are quite conspicuous when you know what to look for. Checking your trees and shrubs, especially if they are fresh from the nursery, is a great way to eliminate pests before they become a larger problem.

## Emerald Ash Borer

The Emerald Ash Borer is an invasive insect from Asia that feeds on and kills ash trees. Since being discovered in western Pennsylvania in 2007, it has moved steadily east. Initially, state regulators were imposing county-by-county quarantines that limited in-state transport of lumber and firewood, but in July 2011, the quarantine was lifted. Unregulated movement of lumber and firewood throughout the state will surely bring EAB to the Delaware Valley in the next few years.

Using the knowledge gained from states where the insect has been active for more than ten years, we know how to protect your ash trees. This year, we will be treating valuable ash trees with soil-applied Merit, the industry standard for control.



Distinctive D-shaped emergence hole

## Euonymus Scale

Euonymus scale is an armored-scale insect that protects itself under a tough waxy covering. The most common hosts of Euonymus scale are various euonymus species and pachysandra. This insect is among the hardest-to-control pests that we encounter, not only because of its waxy "armor" but also because of its lifecycle. Instead of one generation per year as in the case of most soft-scales, Euonymus scale can have up to three generations per year. In my observations, the hatching does not seem to occur in a short time frame, but is spread out over weeks, creating a situation where one or two spray applications will simply be not enough to control the pest. This pest requires multiple sprays and other cultural methods to control such as watering, mulching, and pruning out infested stems.



Male and female Euonymus scale adults

## Soft Scale Insects

In 2011, we saw an explosion of soft-scale populations throughout the Delaware Valley. The most commonly affected plants were Kousa and native dogwood, azaleas, redbud, linden, and holly.

These insects are relatively easy to control with properly timed applications of horticultural oil or other very low-toxic products. Most soft scales begin laying their conspicuous white egg masses in May, but applications should not occur until mid-June when the young scales called "crawlers" hatch. When applications are properly timed, soft scales can be controlled successfully.



Soft Scale on redbud

## Botryosphaeria Canker

Botryosphaeria is a canker-causing disease that tends to attack plants that are stressed by drought, transplanting stress, or winter injury. The most common hosts of Botryosphaeria in our area are rhododendrons, pieris, viburnum, and redbud, but Botryosphaeria can infect plants belonging to over 100 genera. The fungus infects twigs and branches through natural openings in the bark, pruning wounds or freezing cracks. On infected rhododendrons a dark elliptical canker grows along the stems, eventually girdling the twig and killing the growth above. Under normal growing conditions, healthy plants have natural defenses against Botryosphaeria and are basically resistant to the disease. When a stress occurs, such as drought, these natural defenses are diminished and the resistance is lost. One study showed that drought-stressed plants infected with Botryosphaeria became resistant again within only a few days of watering. This shows how important it is to monitor your landscape during hot and dry periods. Additionally, proper mulching will regulate soil moisture and help reduce drought stress. Sometimes we can carefully prune out diseased areas during the dormant season to reduce future infections.



Botryosphaeria Canker damage on rhododendron

Please give us a call if you have any questions about your trees and shrubs or would like to schedule an appointment to walk your property.

# Fundamentals of Tree Pruning

By Jim Ward, ISA Certified Arborist

Both ornamental and large canopy trees need to be pruned in order to promote health, resist disease and decay, and lessen the chances of storm damage.

The last year was very trying for our trees. Heavy snow in the winter, high winds and heat in early summer, record rain in the fall — and don't forget about the late October snowstorm to finish the year off.

Trees are subject to enormous stress from storms and other weather events. High winds, heavy snow, droughts, and floods all place tangible stress on trees and their dynamic structure.

We as a company are continually looking at and evaluating trees. As certified arborists, we study tree structure and use our evaluations to establish proper pruning programs. We strategize about when, how, and why we need to prune trees. Our years of experience and knowledge in this field help us assess all different types of trees and plants in many varied growing conditions. There is no guesswork involved when we evaluate a client's tree or address their concerns about a plant.

Proper pruning should start when the plant or tree is young. We refer to this as juvenile structure pruning. It is at this young age when we can quickly and very effectively develop proper branch formation and select



ISA Certified Arborist

Tadd Leyman shows good form pruning an euonymus in Villanova.

In many instances we are asked to evaluate trees that are past the juvenile stage. They are middle-aged or mature,



Luis Villifan selectively thins a Bradford pear.

and no proper pruning has been done for some time. It is with these trees that our Certified Arborists excel. We can determine which limbs to remove or save in order to benefit the health of the tree. Proper crotch inspection and limb attachment are critical, along with the installation of support cables for co-dominant leader limbs or limbs that need additional support.

Mature canopy tree pruning is a true art. Our climbers are trained in all aspects of mature tree pruning, and have dealt with everything from 150-foot-tall Tulip poplars to 300-year-old White Oaks. All of these senior citizens in the tree world pose particular and different challenges to our crews. Many times we ascend into the canopies of these older trees to remove dead limbs and inspect cable systems, install lightning protection, or reduce weight in an overly heavy limb.

We have countless hours of experience in large trees — those at the notable arboretums and colleges in the area, and the ones in your backyard. We take great pride in the fact that our arborists have quite a reputation for being the best at large tree pruning.

Depending on the tree type and the situation in which they are growing, we are able to make recommendations for their proper care. Experience, knowledge, and ability all converge, and result in well-balanced decisions for your trees. If you have a particular question about tree pruning, or if it has been some time since we evaluated your trees, please let us know. We'll be happy to make a visit!



Luis Villifan works to thin and reduce the size of an ornamental cherry while maintaining the natural beauty of the tree.



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*Feature Tree*

# Coral Bark Maple

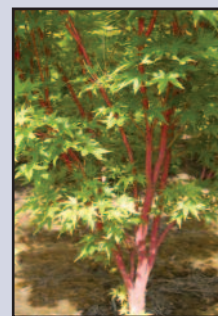
*Acer palmatum* 'Sango Kaku'



Sango Kaku  
in Wynnewood

The colorful winter stems of the Coral Bark Maple make this ornamental tree a winner. The Sango Kaku is easily grown in full sun to part shade. This tree should be sited on a property where the pink or coral bark in the winter months can be easily appreciated.

This Maple is often multi-stemmed and can be maintained at low heights of eight to twelve feet or allowed to grow vertically to twenty to twenty five feet tall. In the spring, foliage emerges light green in color and turns a beautiful yellow in the fall. The trees are generally slow growing.



Sango Kaku  
in St. Davids

The cultivar name means coral tower. *Sango* meaning sea coral and *Kaku* meaning tower/upward growing. The name suggests coral rising upward from a reef — a nice image in the winter.