

John B. Ward & Company, Inc.

Winter 2013 Timely Tree Tips



A message from

Jim Ward

ISA Certified Arborist



Imagine an environmentally friendly machine that recycles carbon dioxide into usable oxygen. This machine also works to cool the atmosphere and clean the air of harmful chemicals. It feeds wildlife and adds value to our homes. Fortunately, we have millions of these machines in our community. They are called TREES!

I encourage everyone to consider planting a tree this year.



Above photos are from
Jim and Nancy Ward's garden

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In recent decades, our tree canopy in the greater Philadelphia area has lost hundreds of thousands of trees to development. In the spring of 2011, the Pennsylvania Horticultural Society announced a regional partnership to plant one million trees throughout thirteen counties in southeastern Pennsylvania, New Jersey and Delaware. The goal is to restore the "tree canopy cover" to 30 percent. Plant One Million is off to a fast start, with 200,000 trees already installed.

There are many ways to get involved with Plant One Million. The website, www.plantonemillion.org, offers opportunities to join in planting trees, become a tree tender, donate money and register newly planted trees. Any trees planted on your property can be registered with Plant One Million.

We are fortunate to live and work in a community that places a high value on trees and appreciates their numerous benefits. I encourage everyone to consider planting a tree this year. If your yard cannot accommodate a new tree, Plant One Million will gladly work with you to accept a donation of money or time.

Thank you for allowing our company to care for your trees. We approach 2013 with great enthusiasm and are committed to provide the highest level of professional tree and shrub care to your landscape.

Penn Treaty Elm

By Ken LeRoy, ISA Certified Arborist



An American Elm tree grows on the grounds of Haverford College. Not just any tree, this Elm is a descendant of the great Treaty Elm that once grew along the Delaware River at Shackamaxon. Standing under its wide crown and swooping limbs, one can imagine the great tree swaying in the October breeze of 1682 as William Penn accepted a wampum belt from Tamanend, the chief of the Lenni-Lenape. One can still view the wampum belt at the Historical Society of Pennsylvania and one can still stand under the elm's boughs.

The story the tree tells is as twisted as its limbs.

According to horticulturist Carol Wagner of Haverford College, the original tree at Shackamaxon blew down in a gusty March wind of 1810. However, a shoot of the tree had been transplanted by General Paul Oliver to his new home

in Bay Ridge, New York. When General Oliver moved back to Pennsylvania, he had the tree transplanted to his new home grounds in Wilkes-Barre. The Committee of Friends presented a scion (cutting) from this Treaty Elm to Haverford College, where it was planted

on Founders Green in 1842. One hundred years later, in 1942, it was measured and recorded with a height of 100 feet, a spread of 120 feet, and a trunk circumference of over

10 feet (40 inches diameter breast height, dbh). Gardeners propagated and planted progeny from this tree on campus throughout the early 20th century, and also distributed slips to other Friends groups. The Founders Elm succumbed to Dutch Elm disease in 1977. The tree shown in the photograph growing above the Duck Pond on what is known as Barclay Beach is a descendant of a propagation project made

in 1915. It is the only one of seven to survive and is considered a great grandchild of the original Founders Elm, a direct descendant of the Penn Treaty Elm.

Haverford College shared a Penn Treaty Elm with the Friends of Penn Treaty Park around 2000, but that tree died. Not to be deterred, Carol Wagner donated another Penn Treaty Elm in 2010 to commemorate the 200-year anniversary of the original tree's uprooting in a March 1810 storm.

Carol has also shared Penn Treaty Elms with a Lenni-Lenape community in New Jersey, and with the Friends at Arch Street Meeting House in Philadelphia at 4th and Arch Street.

It has been many, many moons since Penn and Tamanend were together under the Treaty Elm. It's fantastic to think of the persistent efforts of the people involved over all these years to keep the tree growing and disseminated. The Treaty Elm is one of the most iconic trees in America. It speaks to the natural world William Penn found here, and the native people with whom he respectfully engaged in a treaty of peace. Last, but not least, it speaks to the Quaker consciousness of valuing trees and the nurturing of nature that still permeates the Delaware Valley in 2013.



Penn's Treaty with the Indians,
by Benjamin West, 1771-2



A direct descendant of the
Penn Treaty Elm

DIY: Simple Espalier Project for a Bare Wall

By Jim Ward, ISA Certified Arborist

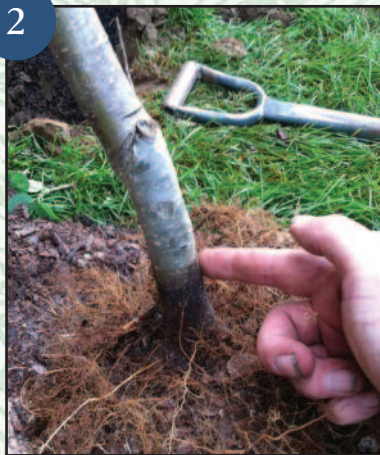
We have a bare wall at our shop and I thought this would be a simple addition to spruce things up. The project takes about two hours and will be fun to prune and train in the future.

1



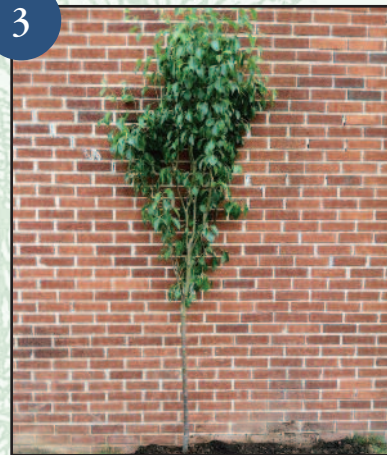
Purchase a tree. I bought a pear tree from the closeout bin at Home Depot for \$20.

2



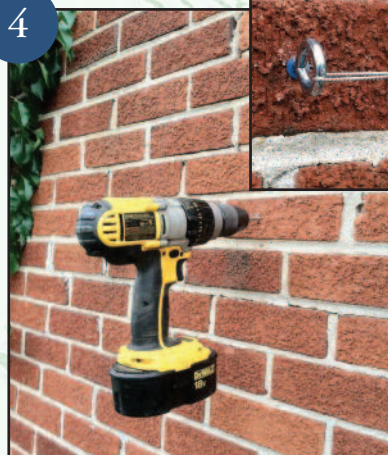
Take the tree out of the container, loosen the compacted root ball, and feather out the bounded roots. Much of the potting mix will fall off. Don't worry about it. Here I'm pointing to how deep the tree was buried in the pot.

3



Plant the tree up high where the first structure roots emerge from the truck. Use soil amendments: leaf compost or whatever you have. Firmly pack soil around roots. Remember we loosened all the potting mix in Step 2.

4



Set-up the support wires horizontally. Use a masonry bit and appropriate hardware for the type of wall. Just screw eyes and plastic anchors as shown and attach the wire to the screw eyes.

5



Prune the tree and chose structural limbs and tie each limb to the horizontal wire.



2012 was the warmest year ever recorded in the Delaware Valley. In terms of plant health, this had various consequences. The very warm winter allowed most insect and mite pests to survive, and the quick warm-up in the spring brought very rapid infestations of spider mites and armored scale insects. An extended dry period in the summer predisposed trees and shrubs to attack by opportunistic diseases of which will be seeing the effects this season and beyond. It is challenging, but we do our best to stay a step ahead of the pest outbreaks and advise our clients the best way to maintain healthy trees and shrubs.

Emerald Ash Borer

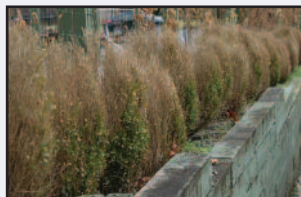
The Emerald Ash Borer (EAB) is an invasive insect from Asia that feeds on and kills ash trees. Since being discovered in western Pennsylvania in 2007, it has moved steadily east and was found in Warrington, Bucks County in the spring of 2012. Now that EAB is close to the Main Line, we feel that it is time to start protecting valuable ash trees. If you would like us to inventory your ash trees and discuss treatment options, please call our office to make an appointment.



Distinctive D-shaped emergence hole

Boxwood Blight

In 2011, a new disease called Boxwood Blight was discovered in North Carolina and Connecticut. In 2012, it was discovered in Chester and Lancaster Counties in Pennsylvania. Boxwoods are the most popular landscape evergreen shrubs in our area. Boxwood Blight is spreading into established landscapes by way of new plant material that is infected in the nursery. It is very important to inspect any new boxwoods you are planting for telltale signs of Boxwood Blight. At this time, there are no control recommendations for this disease. Infected boxwoods should be removed promptly and proper State agencies notified. If you would like us to check your boxwoods, please call our office.



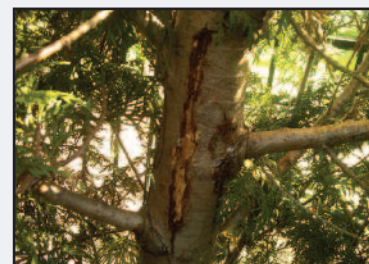
Defoliated plants



Infected leaf

Japanese Cedar Longhorned Beetle

A relatively new pest to our area called the Japanese Cedar Longhorned Beetle (JCLB) is beginning to infest some of the most popular larger evergreens, namely *arborvitae*, *cryptomeria*, and *chamaecyparis*. This is a very difficult pest to detect early in its lifecycle because it lives beneath the bark of its host, invisible to the outside. As the larva matures, one might notice some bark splitting and resin oozing. Once the larva matures, it tunnels directly into the trunk to complete its lifecycle, spends the entire winter inside the trunk as an adult, and then tunnels out in the spring to mate and lay eggs. Once the beetle emerges, it leaves behind an oval-shaped exit hole. The tunneling that the larvae do under the bark can kill entire trees in one season. In our experience, this pest is coming into landscapes on nursery stock, so inspection of new trees is critical.



Stem damage from JCLB

Armored Scale Insects

2012 proved to be a difficult year for keeping armored scale insects at bay. The populations of euonymus scale and prunicola scale seemed to explode overnight, and normal treatment regimens were not as effective as we hoped. In 2013 we will be trying a variety of techniques to keep your plants pest-free.



Prunicola scale

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.

Case Study

Structure Pruning Young Trees

By Matthew Ward, ISA Certified Arborist

Foxfield Homeowners Association is a community of homes built about five years ago in Garnet Valley. The land was cleared for construction and street trees were planted as part of the landscaping plan. The owners

are committed to caring for their young trees and recognize the numerous benefits of healthy street trees to the community.

John B. Ward & Company was contracted to care for the new trees

and we recently completed a winter project of structure pruning 463 young

trees. Structure pruning can begin as soon as a tree becomes established. Winter is an excellent time for this pruning because leaves do not obscure the branches. Our goal is to develop healthy limb structure by establishing a single dominant stem and evenly spaced branches. Trees should be inspected annually for the first ten years and pruned as needed. Pruning cycles can be extended to every two to four years during the 11- to 25-year period following establishment.

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.



ISA Certified Arborist
John Cotterall
structure prunes a
zelcova tree in January

International Society of Arboriculture (ISA) Best Management Practices recommend the following steps for structure pruning:

- Clean the crown by removing dead, broken, diseased and dying branches. Also remove crossing/rubbing limbs and those with weak attachment.
- Choose and develop one dominant leader. This can take multiple years of pruning as competing leaders are subordinated (reduced) in preparation for their removal and the establishment of a central leader.
- Establish the lowest permanent scaffold branch.
- Select and establish additional permanent scaffold branches in a radial pattern around the stem.
- The diameter of a branch should not exceed half of the diameter of the stem they are attached to. Sometimes these branches are subordinated and removed at a later pruning.
- Strictly avoid removing any more than 25 percent of the tree's foliage in one year.
- Thin out closely spaced branches as the crown develops.
- Delay in removing lower branches to maintain a 2/3 live crown ratio.
- With structural pruning, a good long-lasting branch and crown form are created and future storm damage is reduced. The useful life of the tree is increased and more expensive tree care practices, such as cabling and bracing, which are often needed later in the life of a tree, are avoided.



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Water Your Trees Properly to Keep Them Healthy

By Hugh Darlington, ISA Certified Arborist

Stress caused by drought is by far the most common reason we are asked to look at and evaluate an unhealthy tree or shrub. Mother Nature has not exactly been cooperating with us; with the exception of 2010, every summer in recent memory has had a significant period of drought. During a drought, a plant will go into "survival mode" and stop making new carbohydrates. Fine roots will begin to die off and vegetative growth stops. The accumulation of these stresses leaves a tree or shrub very susceptible to attack from insects and disease.

To avoid drought stress, one deep watering per week is a good rule for most established trees and shrubs. This will encourage a healthy, deep root system and will also allow the root area to drain properly. Some shrubs such as

hydrangea and rhododendron require more frequent watering during very hot periods.



Proper mulching with wood chips or shredded bark will help conserve water during hot weather and will improve the soil conditions over time. We usually encourage clients to mulch as large an area under their trees as they can; reduced competition from grass and other groundcovers is a big help, especially for older trees.

If a tree has been stressed by drought, it should be closely monitored for secondary insect and disease pests that can hurt a tree long after the drought has passed. Additionally, dead or diseased branches should also be pruned out and very full trees should be carefully thinned out to reduce water needs and improve structure.