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Tree Talk

A publication from the staff of Metropolitan Forestry Services, Inc.

Winter / Spring 2010

A Message From the Desk of Dan Christie...

In this issue of Tree Talk you'll find current tree care and landscape news. We would also encourage you to check us out on our new website at: www.metro-forestry.com. It contains current up-to-date information on plant health care, landscape ideas, and more information on the services we offer. Our web site will be regularly updated with the latest news and helpful information. We hope you'll find it useful. Let us know what you think. Also, **MFS is now accepting major credit cards.** We hope this new service provides you with a new level of convenience.

While 2009 was generally a good year to be a tree with moderate temperatures and ample water, I wanted to bring to your attention a different sort of tree problem. This problem has been around for some time now and recently been quite prevalent in several areas, some of it has been downright ugly. I'm talking about **PAW - Poor Arboricultural Work**. PAWs have been seen in increasing numbers around town and are detrimental to the health of some of the region's most beautiful trees. Some of this work is very obvious, such as the use of **climbing spikes, topping, and lion tail trimming**, not to mention operating without proper safety gear or business licensing. Some of this work is not so obvious, such as using improper flush cuts which may permanently damage trees by opening wounds to fungal infections. Do your neighbors a favor and tell them to keep PAWs out of their trees! They deserve much better treatment. As with any improvements or work done on your property, always get a **written contract** and ask for an **insurance certificate**.

As we begin this new year, we once again set goals to provide the best tree and landscape services in the greater St. Louis area. We appreciate your business and hope your new year brings plenty of sun in the cold and shade in the heat. All our best.

Dan Christie

Winter Pruning

Winter is a great time of the year to prune trees. With the foliage gone from the tree, you can get a good look at the structure of the tree and see defects clearly. **Some things we look for are: weak branching, cracks, dead and decaying wood, or anything else that might compromise a trees health or integrity.** Other reasons to prune during the winter are to improve the natural form of a tree's canopy and restore balance and shape.

While we almost never trim trees within one or two years after being planted, they should soon after be inspected. Again, what is important to look at here is its structure. When a tree is young it's often very easy to correct any structural problems with a few simple cuts rather than many major corrective cuts in its future.

Dormant season pruning also prevents several fungal diseases, that are more active in the growing season, from entering wounds. Pruning can also be done in difficult to reach places when the ground is frozen; lessening the chances of compacting soils or damaging turf and perennials planted underneath the trees.

Many overgrown shrubs can also be heavily pruned back during dormancy. Shrubs such as spireas can often be rejuvenated, or cut back to the ground, when dormant which will grow back in full form in the spring.

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Services We Provide:

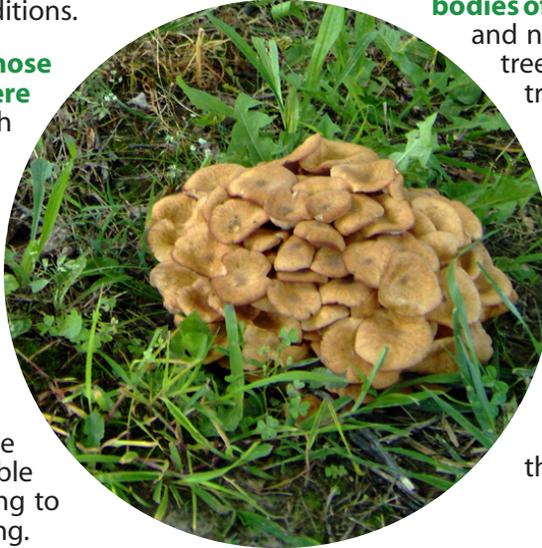
- Tree Pruning
- Landscape Design and Construction
- Vegetation Insect and Disease Management
- Tree and Shrub Fertilization
- Tree and Stump Removals
- Landscape Evaluation, Appraisals, and Consultation

Weather / Plant Relationships

We can sum up the weather of 2009 in two simple words - **Cool & Wet!** This past year goes on record of being one of the dampest years on record and with below normal temperatures for our usually hot months of July and August. Moisture and sunshine were ample and we saw very good growth on trees and shrubs. We can't remember perennials and annuals ever looking as good as they did this summer! However there were a few predictable plant pests and diseases associated with these weather trends. Several fungi and bacteria thrive under these conditions.

Foliardiseases such as anthracnose and powdery mildew were higher than usual.

Although not normally troublesome by themselves if combined with other ailments they can stress a tree into a declining state. Flowering Dogwoods and Lilacs were particularly affected by several of these foliar diseases. Trees and shrubs suffering from any of these diseases for several consecutive seasons should be given closer attention. Possible treatments could include pruning to improve air circulation or spraying.



We also observed higher numbers of Phytophthora fungi associated with waterlogged and poorly drained soils. Not much can be done to cure this fungal problem once it has infected a plant. Providing adequate drainage and avoiding high amounts of quick release nitrogen are good preventative measures. Above all avoid planting susceptible plants, such as rhododendrons and azaleas, in poorly drained areas.

This summer we also noticed higher numbers of fruiting bodies of Armillaria Root Rot.

This fungus is opportunistic and normally found in soils; it infects roots of stressed trees. Its mushrooms can be found under or around trees in orange to honey colored clumps in the late summer to autumn seasons (*pictured to the left*). Many plants from Oaks to Pines are susceptible to this root rot. If Armillaria, or any other fungus, is suspected an evaluation should take place to find the extent of decay. Extensive decay of the root system of any tree could compromise its structural integrity and overall health.

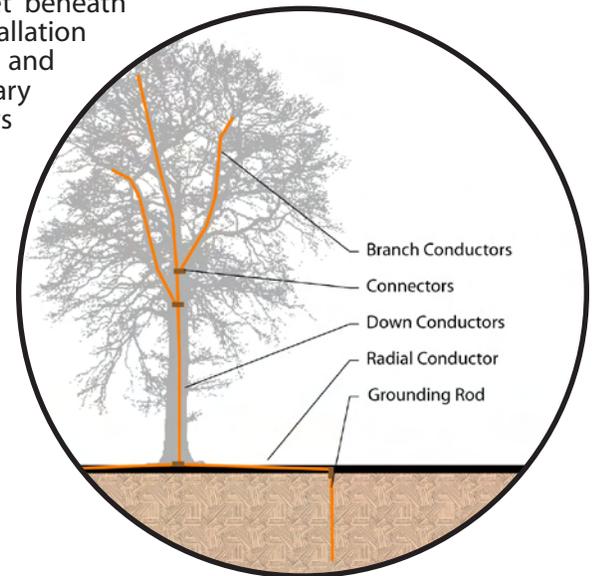
While we can't predict the weather for next year, we can predict that a lot of the escalated problems we saw last year will carry over into the next. The severity of this depends on what the upcoming weather will do.

Trees + Lightning

A lightning protection system is a way to protect mature trees of high value. This might include a historic tree or one that occupies a particular important place on your property.

This system works by re-directing the energy from the bolt of lightning away from the tree and into the ground. The protection system consists of copper or aluminum conductor wires that run from the top of the tree (and sometimes from major lateral branches) into the soil and end

at ground rods driven 10 feet beneath the surface. Detailed installation instructions must be followed and careful inspections are necessary every few years as the tree grows to ensure that the system is in working order. Lightning control devices should be installed by professionals that strictly follow standards set forth by the American National Standards Institute (ANSI).



Common Lightning Misbeliefs:

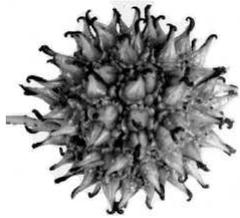
- Lightning will never strike the same place twice.
- Lightning always strikes down - never up.
- Lightning always strikes the highest area.

PHC Contracts

Plant Health Care Program Contract Proposals were sent in January. If yours hasn't arrived in the mail already give us a call. This comprehensive care package addresses insect and disease management as well as provides services for root and soil enhancements. **When combined with proper cultural care methods such as pruning and mulching your landscape will be in top shape.** Our Plant Health Care Program consists of:

- **Basic Insect Control**- Designed to control leaf-eating insects and mites on your trees and shrubs. 3-4 spaced treatments are recommended for optimum control.
- **Borer Control Program**- Systemic injection of insecticide specifically designed for control of borers.
- **Specialty Treatments**- To target specific diseases or insect problems unique to your particular landscape needs. (Crabapple-Hawthorn, Austrian Pine, Scotch Pine, Spruce, Holly, Sweetgum Ball Reduction, Party Spray, etc.)
- **Root Enhancement/Nutrient Program**- To provide well balanced soil fertility and biological stability.

Sweetgum Ball Reductions



MFS has been regularly using treatments for reducing the quantity of seed balls in Sweetgum trees. We will begin this seasons sprays in April. As many of you are aware Sweetgum flowering and fruit production are very much dependant on local weather conditions.

In order for our spray to work at its maximum potential there is a narrow window of time where the weather conditions and the timing of the sprays must be in line. **Let us know if you are considering getting your Sweetgum trees treated as soon as possible so that we can make full preparations for the spring.**

The Functional Landscape

With spring right around the corner now is one of the best times to plan how we want our landscapes to look and function. Where do we want to increase shade or sun? What views do we want to block or enhance? There's so much we can do to improve our yards and so many more benefits to gain. This begins with defining landscape goals, both short and long term, and carefully planning for the future.

As we begin the new growing season we look forward to helping you attain your landscape goals so that your property performs at its best aesthetically, economically, and ecologically.

Benefits of Trees

Aesthetic • Economic • Ecological

Wind Protection
Cold winter winds draw warm air out of buildings increasing the cost of heating while decreasing comfort levels.



Solar Radiation

Trees absorb sunlight as they grow and reflect other UV rays. This helps to keep the surrounding areas cooler as well as increasing the longevity of building materials.



Oxygen

One tree produces nearly 260 pounds of oxygen each year. The average human requires 680 pounds of oxygen each year.



Beauty

Well planned and maintained trees and landscapes add real-estate value and increase neighborhood desirability.

Infiltration

Tree roots keep the ground pervious and allow rainwater to recharge groundwater supplies.



The Greening...

By now most people are well aware of the growing trend and demand for more ecologically sustainable goods and services or **'the Greening of America.'**

At Metropolitan Forestry Services, inc. we have always tried to be leaders in environmental management. We have always followed and supported market trends and scientific advances that make sense both economically and environmentally. **MFS has always recycled wood wastes into firewood and mulch.** Very recently wood wastes have found a new home in the energy industry. Newer technology and laws allow some coal fired power plants to mix a percentage of wood chips into their furnaces. Many of the wood chips from arboriculture operations all over the St. Louis area, including ours, are being directed toward this use in local power plants.

For much of the country, because of the competition for wood by-products, mulch supply companies are predicting changes in the pricing of their products. While mulch prices have always been lower in St. Louis compared to other areas of the country they may raise a bit, slowly over time.

There are some alternatives to using hardwood mulches. Compost and other organic materials provide many of the same benefits while utilizing local materials. Another great alternative is to try and keep your existing leaves on site. They can be raked from grass areas into expanded planting beds and mown with a mulching blade on your lawn mower to get a fine and consistent mixture that won't blow away in the wind while providing a manicured look. This system could really be great for the health of your trees as this more closely resemble a forest ecosystem where trees are at their best.

MFS also continues to support the use of native plant communities in our residential and commercial landscapes. Native trees, shrubs, and herbaceous plants are well adapted to our climate, provide conservation habitat for wildlife, and condition soils that in turn help store and regulate the flow of storm water.

Recently local municipalities and utility companies have increasingly been promoting rain gardens. These gardens utilize native plants and serve as alternative landscape features to alleviate problems of our aging and inadequate existing storm sewer network.

The whole premise of a rain garden is to slow or halt the flow of water off of our properties so that problems don't escalate downstream. Local governments are beginning to recognize how important trees, vegetation, and soils are in managing storm water. Native trees and plants in particular are very well suited to these landscape features and perhaps offer the most benefits of reducing storm water runoff. They make sense to us from a land management perspective as well as give us a chance to celebrate our unique local Midwestern heritage. They can also be designed in many different ways from formal to contemporary to naturalistic.

While there are many bugs to work out within the legal and regulatory systems, we continue to support their effort. At Metropolitan Forestry Services we have been a leader in the green industry and can offer you assistance in designing, constructing, and maintaining rain gardens and other ecologically minded landscape features. **Perhaps you have been thinking about how to convert a section of your yard into something unique. Give us a call and we can discuss ways to improve your home environment.**

Tale of the Scale

In 2009 we had quite a few scale problems ranging from the kermes to the magnolia scale, we are predicting this to continue into the coming summer. **One newer scale on the scene today is the calico scale which is a particular concern.** Calico scale (*Eulecanium cerasorum*) is first believed to have been introduced into the San Francisco area in the early 1900's and subsequently spread throughout the United States. It does not usually kill its host plant, however, it can severely weaken the plant, making it more susceptible to woodborers, drought and other stress factors. Calico scale can be spread by windblown crawlers or carried on the feet of birds between plants.

Calico scale's host range includes Dogwood, Honeylocust, Magnolia, Maple, Sweetgum, Tuliptree, several ornamental fruit trees, and Oaks (especially Pin Oaks).

The adult calico scale is a colorful white and dark brown and about 1/4 inch in diameter. It is brightest at maturity and darkens with age. The feeding adults produce honeydew, a sticky and shiny, coating on foliage. It contains sugars which in turn attract bees, wasps, ants and other insects. This honeydew turns black from sooty mold fungi growing on it and in severe cases may interfere with the trees ability to photosynthesize, further increasing its susceptibility to other stresses.

Calico scale, like most scales, is best treated during its crawler stage or systemically.

Photo to the right from: Raymond Gill, California Department of Food and Agriculture.



'The Green Menace'

So far this has been a relatively quiet year for the spread of the Emerald Ash Borer (a.k.a. **'The Green Menace'**). While there have been no more known new infestations in Missouri, since originally found in Wayne County in 2008, the risk potential is still high. This is due to a combination of the borer's firm establishment in the Great Lakes Region, including nearby Illinois, and Ash Trees being very common in our landscapes. Future forecasts for its spread are difficult to predict.

What we do know is that education and prevention work.

The quick actions to delineate quarantine zones conducted by our state natural resource management agencies have been useful to contain known infestations. Regulations enforced within these zones help control the movement of the borers via wood products, such as firewood,

in and out of the quarantine zones. The more people that become familiar with the Emerald Ash Borer provides more eyes to watch over our trees.

Another extremely effective preventative measure has been including systemic insect treatments alongside a properly designed Plant Health Care Program. These treatments are applied via soil injection and absorbed into the tree through its roots. Research shows this to provide an extended time of protection, up to two years, while having the least exposure to the environment.

In the meantime we will continue to provide future updates on the Emerald Ash Borer and use preventative treatments to slow its spread and minimize impacts.

Picture taken by Howard Russell, Michigan State University.

While Ash Trees make up only 3% of the trees in Missouri's forests they account for over 14% of the street trees, in some neighborhoods it's as high as 30% of the total.



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