

All Phases of Tree and Shrub Care

Leaf Notes

Spring 2017

Vol. XV, No. 11

GREAT RESOURCES FOR YOU!

The University of Maryland (UMD) is a fantastic local resource, with a wealth of knowledge about trees, shrubs, insects, pests, and diseases. As Certified Arborists, we are constantly attending seminars that feature professors and extension agents from UMD. These seminars include lectures about the newest diseases, the newest pests and the newest options for treating those problems. Two of our arborists spent one week in January attending the University of Maryland Advanced Landscape Plant IPM PHC Short Course. The purpose of this course is to re-certify arborists, as well as, IPM monitors and others responsible for managing urban landscapes. This was an intensive lecture/lab combination that featured some of the most relevant plant pests and diseases in our area, as well as how to manage those problems. There is a big push in our industry to use more environmentally friendly products to treat for damaging plant insects and diseases - and attending this seminar is a great way for us to learn about those products.

Another resource that UMD provides is the Plant Pathology Clinic. If there is a plant that is not growing normally, has leaves that are off-color or smaller than normal, our Arborists can submit a sample of this plant to the Plant Pathology Clinic. Most the time the Clinic can test for the presence of damaging insects or diseases. The results can take one-to-three weeks, depending on how busy the clinic is. If the problem is treatable, we can prescribe a treatment protocol. In some instances, when the diagnosis is untreatable (which is always bad news) we may be able to move forward with a better plant solution, such as replacement.



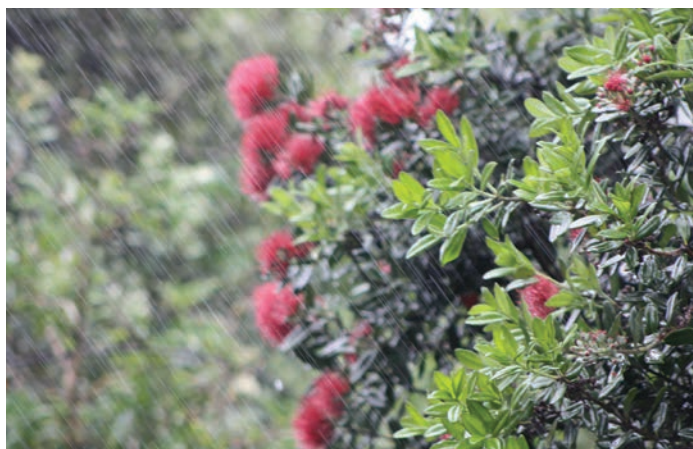
The University of Maryland has a great online presence as well. Some of the websites created by UMD and its extension agency are great resources. For example, the website: www.bugoftheweek.com is a fun way to learn about different insects in our environment. Not just the insects that are pests for plants, but information on a huge number of insects. Another resource is the Home and Garden Information Center website: www.extension.umd.edu/hgic. This is a website maintained by the University of Maryland Extension service and has a ton of information about gardening and integrated pest management. This is the place for home gardeners to get information. And finally, the UMD Plant Diagnostic Laboratory website: <https://extension.umd.edu/plantdiagnostyclab>. This is the site where you can learn all about the diagnostic lab and print out submission forms so that you can send in plant samples as well. All Maryland residents can submit samples, and if you are a DC resident, your arborist can submit the sample for you.

So, the next time you are driving around the beltway and you pass College Park, don't just think about UMD's women's basketball team or their drone research program - think about the great resource the University of Maryland is for our landscapes.

RAIN PATTERNS

In reviewing past newsletters it's apparent water is a common topic. Obviously, rain is a huge impactor on trees and shrubs. The last few years we have had an abundance of rainfall in the spring only to be stuck in long-lasting droughts in the summer and early fall months. The extra spring moisture can lead to waterlogged roots that stress trees and shrubs. This can lead to disease problems that can ultimately lead to death of woody plants. Improving the drainage around the affected plants is probably the best solution. If this is not practical at your home you might want to replace those plants with other species that can tolerate "wet feet."

The dry summers have brought greater problem that affect trees and shrubs. Recently, trees have endured droughts lasting four-to-12 weeks in duration. The fine roots the trees use to absorb water and nutrients dry up and die. Then when the rain finally arrives the plant is not able to fully benefit, leaving it stressed and more susceptible to insect and disease pests that may ultimately kill your trees. The best solution is to water your



trees and shrubs during droughts. If you have an irrigation system it was probably installed for your lawn. These systems are typically programmed to operate several times per week applying water for 15 minutes.

cont.

RAIN PATTERNS CONT.

This is sufficient for turf, flowers, and some shrubs. Most tree roots are in the top 12 inches of the soil. To penetrate the turf and other plants, reprogram your irrigation system so one cycle per week lasts 60 minutes. You can also water your trees using conventional sprinklers and hoses.

Tree roots can extend two-to-three times the width of the canopy of a mature tree. You may need to apply water on the neighbor's side of the tree canopy too. Young newly installed trees will need to be watered several times per week. How can we keep track of nature's rainfall and be sure our trees are not stressed? You can purchase an old-fashioned rain gauge at a local garden center. There are also web sites and smart phone

apps that can be used. Weatherbug.com is a good web site for tracking daily, monthly, and year to date rainfall. They also have a free phone app. Rain Gauge is a good phone app for daily rainfall totals.

What else can be done to help drought stressed trees? Ask your Wood Acres' arborist for a quote to inject "Live Spores," which are a beneficial fungus into the root systems of your trees and shrubs. This will help new fine roots grow and improve water and nutrient uptake. A plant health care program to regularly visit your trees and shrubs and suppress insects and disease is also helpful. Supplemental watering during droughts is the most beneficial action you can do yourself as a homeowner!

WOOD BORING INSECTS: AMBROSIA BEETLE

Wood boring insects are thought to be one of the most destructive pests of trees and shrubs. Wood borers usually do not attack healthy plants growing in their natural environments but when they are subjected to injuries from drought, soil compaction, sun scald or even nutrient deficiencies they become stressed and vulnerable to pest attack. Adult beetles are attracted to pheromones released by plants under stress. These beetles can locate stressed plants up to a mile away. Most wood borers are the larvae stage of many moths and beetles, which tunnel into the bark of trees and shrubs to complete their life cycle. This tunneling or boring activity destroys the water-conducting cells as the insects feed on the wood material in the vascular tissue of the trees/shrubs. This activity disrupts the flow of water and sap which leads to dieback of branches, a general decline in health and structural integrity while also creating a route for plant pathogens. Most plants impacted by wood boring activity will eventually die. While most of wood boring beetles feed on wood as they tunnel behind the bark there is one species that has a different strategy. It is the Ambrosia Beetle. Here in Maryland we have several species of native ambrosia beetle that tend to only attack plants under stress. However, there are two invasive species of Ambrosia beetle that are a concern, because they attack healthy plants as well. *Xylosandrus crassiusculus* and *Xylosandrus germanus* were introduced to the United States from Asia in 1932. They are found in many southern states but have slowly migrated north and are now found in Maryland. This pest overwinters in the leaf litter, starts its activity in early spring when temperatures warm and continues until late fall. They are a major problem because they have a large host-range of trees and shrubs that are found in Maryland's landscapes. These beetles usually attack trees on the lower portion of the trunk about three feet off the ground. Their presence in the tree is easily identifiable as they push packed sawdust or frass out of the holes. It looks like toothpicks are protruding from tiny holes in the bark. Oozing of sap or wet spots on the bark can also be visible. Unlike other wood borer insects, the Ambrosia beetle does not feed on the tree. Instead, they inoculate their galleries with a fungus. This fungus turns into a food source for



the beetle that also blocks the vascular flow of the plant that contributes to plant death.

Preventative control is a must. Once Ambrosia beetles have bored into the tree, control is unachievable because they do not feed on vascular tissue but only the fungus they spread. This makes treating this pest difficult. While most borers can be controlled with systemic insecticides injected into the trees trunk or root system the ambrosia beetle doesn't feed on the wood which limits its exposure to insecticides. The best approach to controlling this pest is to treat with registered insecticides that are sprayed on the lower trunk of trees and shrubs during the growing season. This should be repeated every 21 days once the beetle is active. It is also a good idea to limit stress in the landscape since most wood borers are attracted to stress. This can be achieved through proper fertilization, irrigation, insect and disease control and to avoid wounding trees during: construction projects or even mowing your grass. These sound activities can reduce stress and give your landscape investment a fighting chance to reach natural maturity. If you are concerned with wood boring insects or want to know more about what you can do to keep your landscape healthy please contact your Wood Acres' arborist.

WOOD ACRES TREE SPECIALISTS

(301) 949-4100

woodacrestree.com



Reach your arborist by email:

James W. Harris jim@woodacrestree.com

Forest H. Bowen forest@woodacrestree.com

Riley W. Smith riley@woodacrestree.com

Sam Fisher, Arborist Plan Health Care Specialist

MEMBER: BETHESDA CHEVY CHASE CHAMBER OF COMMERCE / TREE CARE INDUSTRY ASSOCIATION
MARYLAND ARBORIST ASSOCIATION / INTERNATIONAL SOCIETY OF ARBORICULTURE