The Trunkline

Kramer Tree Specialists, Inc.

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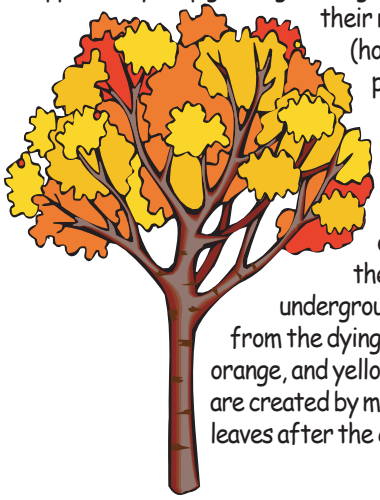
Fall 2004

The Last Drink of Water....

As I turned over the calendar page today, Oct. 1, the realization set in – I don't have much time left to putz around in the yard. I better get myself going, get things done. What remains on my list? Finish digging and splitting peonies, iris, and day lilies, get the new planting bed mulched, turn over the vegetable garden while adding a little mushroom compost, and oh yeah, don't forget to water-in the trees for winter! Why I always think I have more time than I do is beyond me! Now, you may not have as extensive a list, or perhaps yours is longer. I am sure if watering your trees in for the winter is not on your list, then you best grab your pencil!

I would imagine everyone has heard about watering trees in for the winter, especially conifers. I remember hearing it from my mom. The part about conifers still rings in my ears. Well, I never asked why and I never doubted her word, especially when it came to plants.

It all begins in August, as the days get shorter. The change in the length of day triggers a chemical change in trees and two things happen: they stop growing above ground and they start moving all their resources down to the (hopefully mulched and well-protected) root system. Annual root growth begins at this point. Deciduous trees shed their leaves in the fall and most of the above ground operations come to a halt. As the trees shift their operations underground, the chlorophyll disappears from the dying leaves. The bright red, orange, and yellow colors we see in fall leaves are created by materials that remain in the leaves after the chlorophyll dissipates.



Of course, not every tree drops it leaves. This is where the conifers come into play. The appearance of buds in August is evidence that evergreens are beginning the slow, gradual hardening-off process. Above ground growth slows and then stops for the year. Conifer needles are thick and often waxy, which helps with water retention. In winter the tiny openings on the bottoms of the needles called "stomata" close, which aids in preventing water loss. Again, a shift of operations occurs as activity heads underground.

The difference with conifers lies in the fact that they do not lose their foliage. A sunny, warmer day in late fall, early winter, or midwinter can "trick" conifer stomata into opening, allowing valuable water resources to escape into the atmosphere. If water is lacking in the soil when this happens, the roots are unable to replace the lost moisture. When the roots cannot keep up with the water demand, needles turn brown and die, and twigs and buds become brittle and snap easily when bent. Along with watering-in, an anti-transpirant spray can be applied to conifers in November to aid in water retention.

Hence the need to water-in your trees for winter, especially the conifers. So, yes mom, you were right (again), but now I know why!

Lorelei Kepler
Director, Plant Health Care Dept.
Certified Arborist #IL 4236A

Call and arrange an anti-transpirant spray for your evergreens. It will help reduce water loss from the needles in the winter.

Not Sure How to Properly Water Your Trees? More Watering News Inside!

Mulch Reminder

Please remember that the depth of the mulch is very important. Apply mulch no more than 3" deep, and be sure to keep mulch at least 4" away from the tree trunk.

This year we have Double Ground Mulch at a cost of $16.00 per yard or our Special Blend Mulch at $19.00 per yard. Delivery cost is based on a 10-miles radius of our shop in West Chicago, and is priced as follows:

1-5 Yards: $40.00 6-25 Yards: $50.00 Over 25 Yards: $60.00

Also, you always have the option of picking up the mulch at our location.

News From the PHC Department

In the fall of 2003, I was working on my tree identification skills. While driving around for the day with an associate as he completed his many stops, I was picking his brain for all those little facts about different species that helps a well-seasoned arborist identify trees at a distance. For instance, the trunk of a sugar maple has bark furrows that go in one direction. If you rub around the trunk in one way it will feel smooth, and the other way it will feel rough. After a time and with some serious concentration, a sugar maple can be identified at about 65 mph while driving the freeway!

This summer, while driving here and there during the normal course of a day, I felt like I was actually much better at identifying stressed trees or trees "in trouble" than I was the actual species, genus, cultivar, or variety of tree. For example, the Siberian elm met with a debilitating fate this year, being heavily attacked by the flea weevil. The sparse and browning foliage gave the tree a distinctive appearance from a distance, making identification a snap! Now, I have been associated with the PHC Dept. for 6 years and this is the first I had heard about a flea weevil, as it is a newcomer to our area. Peering at this bug through the microscope makes it obvious as to where some filmmakers get their ideas! Then the search begins: what is it? what is the life cycle? what control efforts exist? how will it affect the health of the tree? will it be back next year? All questions we look to answer in order to make your Siberian elm - or any other species of tree with any pest, be it an unknown, infrequent, new, or common - the best that it can be.

Another pest seen this season that is not uncommon or new to our area is the tuliptree scale. Magnolias, typically bothered by the magnolia scale, appear to have severe infestations of tuliptree scale this season. Other tree species that can be affected by this scale are tuliptree, walnut, and linden. Infestations can become severe in just one season, as one female scale can produce up to 3,000 eggs. We have seen severe infestations where female scales are layered on top of female scales and branches are covered with over-wintering black second-instar nymphs. The next opportunity to target this scale for control is with a dormant oil spray application prior to bud break in the spring.

One would be very hard pressed to identify scale at 65 mph as microscopic examination takes time and research. However, the damage caused by this pest easily indicates a tree that is stressed and in trouble.

Lorelei Kepler, Director, PHC Dept.
Certified Arborist #IL 4236A

2004 Illinois Climbing Competition

Todd Kramer completed the Belayed Speed Climb in 24 seconds, taking first place in this event.

This year's event was held on September 11th at Veteran Acres Park in Crystal Lake. It was a perfect day for the rigors of this competition!

Tim Rickerson attended the competition for the first time this year. You may know Tim as one of our Arboricultural Associates who makes recommendations for the care of your trees. According to Tim, seeing this type of competition and watching our Field Arborists at your home are two totally different experiences. It was particularly comforting to Tim when watching the Aerial Rescue event to learn that Todd placed 1st for the seventh consecutive year! I am particularly grateful when watching this event that we have not had to perform an aerial rescue on a job site in thirty years of business.

The competition consists of five preliminary events. The four competitors with the highest combined scores qualify for the Masters Challenge, which is the final event and determines the Champion. Now for the results... Nathan Hadley of Davey Tree Expert Placed 1st. Nathan will go on to compete at the international level in Nashville, Tennessee in July of 2005. Congratulations to Nathan and good luck in Tennessee!
2nd Place: Jason Diehl
3rd Place: John Meiszner
4th Place: Todd Kramer

In the Women's Division, Anne Dalrymple of Best Trees placed 1st and Caryl Schrader of The Care of Trees placed 2nd. Anne will also be attending the 2005 International Competition in Tennessee. We wish Anne all the best! Women climbers have a lot to offer the field of Arboriculture. I admire their dedication to the tree care industry. Tree work, when performed safely and properly, is truly difficult work, at least from my perspective on the ground. Todd has said, "it is only hard when you *don't* know what you are doing!"

The finalists who qualified for the Master's Challenge, left to right: Anne Dalrymple, Caryl Schrader, Jason Diehl, Nathan Hadley, John Meiszner, and Todd Kramer.

Participating in the Tree Climbing Competition is admirable and we congratulate all the competitors!
-Jan Kramer

2004 Gift Cards Sent From Response Sheets:

February 2004: Ms. Margaret Quigley – Batavia
March 2004: Mr. & Mrs. Robert Braschel – Glen Ellyn
April 2004: Ms. Ellen Kus – West Chicago
May 2004: Mr. Philip Davis - St. Charles
June 2004: Mr. & Mrs. William Barry – Carol Stream
July 2004: Ms. Debra Campise - Addison
August 2004: Mr. Gerald Koster – Geneva
September 2004: Mr. & Mrs. Don Leo - Wheaton

On the Research Horizon

Since our initial report on Cambistat in the fall of 2002, we have applied Cambistat to over 1,230 trees. The results of these applications have been varied - which is expected due to the variety of trees treated - and at this time not fully conclusive, as the effects of Cambistat continue for about three years following treatment. It is not like taking an aspirin for a headache! My very chlorotic river birch was treated in the fall of 2003. The tree responded to the treatment with the top half of the tree improving, producing leaves that were greener (less chlorotic), thicker, and smaller. The bottom half of the tree remained fairly chlorotic, more or less unchanged. Also noted was the hosta about 18" from the base of the tree, which had smaller, thicker, and greener leaves on the trunk side of the plant and regular textured and full-sized leaves on the other. We know the product is there and working! I eagerly await the next growing season to see how much more my tree may improve. This is a tree that was seriously considered for replacement! A tree naturally puts its available energy toward growth, reproduction, and defense. As Cambistat regulates growth, the tree's available energy that is freed from the growth process is redirected to the other two processes. We are very excited about this product, and I encourage you to proceed with a treatment when your Arborist recommends Cambistat.

These photographs show the effects of Cambistat on a white oak at the Morton Arboretum. The picture at left was taken at the time of treatment in 1989. The picture above was taken in 2001. Photos appear courtesy of Gary Watson.

Lorelei Kepler, Director, PHC Dept.
Certified Arborist #IL 4236A

Because It Is So Important, More About Watering...

Some homeowners believe that trees located on lawns will receive adequate moisture if the lawns are watered well. Not so! The sod will use most of the water, leaving very little for the trees. This is one of the many reasons we are such advocates of mulch!

The objective is to saturate the root zone of the tree without runoff or puddling. Apply water under the entire canopy area and beyond. Roots of most deciduous trees extend 2 - 3 times farther than the branches; roots of evergreens about 1.5 times farther.

About 80 - 90% of roots of mature trees are in the upper 18" of soil. The critical root zone for watering is in the upper 12" of soil. Watering depths can be checked with a soil probe, which is a hollow metal tube that is pushed into the soil, or with a soil moisture probe.

When should I water?
Throughout the year, when it is above 40 degrees and there is no snow cover. Also, be particularly mindful during July and August if there is no natural rainfall. A "rule of thumb": water small trees 4 times per month, medium trees 3 times per month, and large trees 2 times per month. The amount of water is based on trunk diameter and monthly frequency. Always take into account natural rainfall.

During September, trees should be soaked just once. Excess moisture in September can induce the production of new succulent growth, which would likely die during winter. This one watering in September will allow them to harden-off in preparation for winter. *Give your trees a last soaking in late October, after they are fully dormant but before the ground freezes.* Also at this time, all shrubs should be soaked thoroughly.

Where should I water?
Measure the circumference (in inches) of the tree at 4.5 feet above ground. Divide this number by 2 and then measure out that many feet from the trunk. A tree with a 60" circumference will have the majority of the roots within 30 feet from the trunk in all directions. This is the minimum area you want to water.

Methods of watering:
Deep root fork or needle, soaker hose, or hand held wand. If using a wand or sprinkler you'll need to be watchful that water is not applied faster than the soil can absorb it. If water runs off or puddles outside the root zone area, it will not benefit the tree.

How much water should I apply?
The "rule of thumb" for watering small to medium sized trees is to apply 10 gallons of water (per watering) for each inch of the tree's diameter. Large trees (over 10" in diameter) should receive 15 gallons per inch of diameter. A 2" diameter tree will need 20 gallons per watering. Use a ruler to measure the diameter or divide the circumference by 3.14. Measure the diameter approximately 3.5 - 4.5 feet above ground.

	Tree Diameter (Inches)								
	<1"	1"	2"	4"	6"	8"	10"	12"	14"+
	Minutes to Water								
Deep Root Fork 2 gpm	2	5	10	20	30	40	50	60	70+
Deep Root Needle 2 gpm	2	5	10	20	30	40	50	60	70+
Soft Spray Wand 4 gpm	1	3	5	10	15	20	25	30	35+
Soaker Hose 2 gpm 50' w/restrictor	2	5	10	20	30	40	50	60	70+

Clip out the chart above and use it as a guide for timing your watering applications. "GPM" represents "gallons per minute" and is a standard rating for common yard hoses and watering devices.

WOODY SAYS...

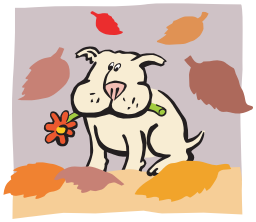
Radar and Buddy had a wonderful summer, although I should qualify that by saying Buddy had a wonderful summer with the cool temperatures, but Radar missed his pool. I was so engrossed in planting beds and enjoying the cool weather on the weekends, I never dragged out Radar's pool to fill it!

As you may know, Radar and Buddy come to work with me in the morning. Bunny and Fran were talking about how much the dogs enjoy coming to work, and then figured out why on their own! Here's the routine: As they beat feet into the office, they immediately go to Joe's office to see if he is there, as that may mean they get to take a ride along with him sometime during the day. Getting that information, they then go to Mike for their morning treat. If they think Bunny did not see Mike giving them a treat, they sit by her and stare her down along with a few whines. Bunny will tell them "Mike gave you a treat, it is not time now." They walk away and approach Bunny again after Mike has left. If Bunny does not respond to their "needs", their last ditch effort is Fran, who always gives them a treat, but they always go to Fran last!

Radar has the best trick of all, and Buddy has never caught onto it! When I was working with Lorelei last year in the Plant Health Care Department, I realized one morning that Radar is at her door between 10:00 and 11:00am everyday. I said to Lor, "I just noticed that Radar is always here about this time in the morning, why does he do that?" (I foolishly thought he came to see me!) Lorelei sheepishly said, "Well, he comes in to get his morning treat," and showed me her stash! Lorelei also said that sometimes he's early, and she'll say "Radar you're too early," and he turns around and comes back later!

It's hard to believe that some people think our pets do not understand what we are saying to them. Whether it's our inflection or the actual words, I am truly amazed at how much they do understand, but it's also a little daunting!

Jan Kramer



You can't keep a good man down – or an over-affectionate dog.
Anonymous

FALL FERTILIZATION HAS BEGUN - ARE YOUR TREES ON THE "ROUTE" TO INCREASED VITALITY?

Featured Tree of the Season

Ostrya virginiana is one of a few superb upland understory trees. You might know this tree by the name of ironwood, musclewood, or hop-hornbeam. *Ostrya virginiana* has yellow fall color with leaves that persist through winter. *Carpinus caroliniana* has red fall color. Fruits look like hops, hence the common name of "hop-hornbeam." The trunk of the tree resembles sinewy muscles, responsible for the "musclewood" name. The common name "ironwood" is reflective of its extremely hard and tough wood, which is used for tool handles, small wooden articles, and fence posts. Some books say the tree grows slowly and transplants poorly. Not so, according to the Possibility Place Nursery of Monee. They say ironwood is the sixth fastest growing tree in their nursery. Only catalpa, birch, aspen, and alder grow faster. They also indicate that ironwood transplants great up to 10 feet in height. The tree will grow to 20 - 30 feet high and wide in zones 3 - 9. This is a great tree for naturalizing along the edges of woodlands, and it also makes a fine small street or lawn tree.

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