

## Archive for August, 2014

### Dead Trees

Saturday, August 16th, 2014

Occasionally a tree dies. A natural human reaction is, “What killed my tree?” Or, in some cases, “What the Hell killed my tree????!!” A dead tree in the forest is just a dead tree in the forest, but a dead tree in someones yard becomes a matter of consternation and responsibility for the homeowner.

Like all living things, a tree has a natural lifespan, and will eventually die; of old age, if nothing else. When the cause of a trees death is obvious (e.g. storm damage, a lightning strike, a fire, etc.), we don’t normally get too upset, if at all, and just mark it off as something that couldn’t be avoided or bad luck. However, when the cause is not so obvious, our reactions can cover a wide range of emotions from curiosity (“I wonder what killed my tree?”) to raw anger (“Who/what killed my tree?!!!!”). Finding answers for such a wide range of emotions can sometimes be a difficult task for an arborist or urban forester.

Determining what killed a tree can be difficult because the reason may not have been the result of something that occurred recently. For example, it may take a few years for the effects of a prolonged drouth or construction damage to show up by killing a tree, “all of a sudden.” Such damage is difficult to determine, and many times a homeowner doesn’t believe the arborist when he tells them the damage that caused their tree to die actually occurred 4 years ago when their house was built. I once had a hickory tree die from root damage that occurred 8 years before the tree finally succumbed (it never was able to regenerate the roots killed when the houses’ foundation was poured. But, being a tough hickory, it hung in there for a good long time before giving up the ghost). Severing/damaging the root system of a tree is one of the most common ways that a tree dies slowly over time. Repeatedly topping a tree is another slow killer. The tree tries to overcome the damage, and hangs in there, but eventually gives it up and dies.

Even less evident is the slow killer we call “fill kill.” It occurs when fill dirt is added over the root zone of an existing tree to such a depth that it essentially smothers the root system by upsetting/choking-off the oxygen supply in the critical feeder root zone. Again, the tree may not die immediately, and tries to recover, but eventually becomes so weak (or stressed) that it cannot overcome pest attacks, drought conditions, etc., and it dies.

There are a number of construction damages that can injure a tree that is trying to be saved; some are obvious, such as a backhoe knocking a chunk of wood out of a trees trunk, but it may be the less obvious that causes the most long term problem(s) for the tree that one is trying to save during construction. The operation of equipment, and vehicles of various kinds entering and leaving a site can cause serious soil compaction problems that will kill root systems (or parts thereof) that result in long lasting damage that won’t show up for several months, or years, after a home is finished. Trenching to install underground lines of various kinds is also another construction activity that is good at killing roots.

Damaging the root system of a tree is the major reason a tree dies “all of a sudden” with no apparent cause.

Many folks see insects and diseases attacking their tree, and assume these are the culprits responsible for their tree troubles. This is possible, of course, but most trees that are otherwise healthy, can successfully fight-off attacks by native, endemic bugs and pathogens without dying. Sometimes an alien invader shows up in epidemic proportions, and our trees have no built-in immunities to help them combat such an attack, and they die even though they are basically healthy. However, even this is fairly uncommon in healthy trees, but the damage is begun, and repeated attacks may do-in the tree over time. Most

observations of insect and disease activity are secondary attacks occurring on individuals that are stressed by previous/ ongoing health issues or problems. Treating the attacking pests may slow down, or even cure, the deteriorating condition of the tree, but it's kind of like trying to cure cancer in a person; you have to be vigilant, and stay with the treatment(s) in order to be successful.

So, if a beloved landscape tree suddenly dies, it is incumbent on us to immediately remove it in order to remove any danger that might occur due to it's demise. Then, we can get down to planning for a replacement, if desired, or adjust our landscape plan to do something else with the space created.