

SUMMER STRESS ON TREES

Tulsa has some remarkably interesting summers. It goes from being wet and cool to hot and dry almost overnight. Prolonged rainless spells coupled with high temperatures, intense sunlight and dry winds place severe stress on our trees. A common early symptom of stress or injury is marginal leaf burn or trees prematurely losing their leaves. While this may look like a dying tree, it may simply be the tree going dormant.

Drought or insufficient water is the most obvious cause of stress in trees. While young trees are affected quicker, recurring summer droughts can severely impact even old, long established trees. An important fact to understand is that the root system of a tree is not a mirror image of the trunk and branches. Most roots are shallow, in the upper 12 to 18 inches of the soil, especially the finer roots doing the critical work of taking up water and nutrients. This is the area that needs the most moisture and the same area that can quickly dry out during the types of summers we have recently experienced.

So, what to do? First, do not immediately assume the tree is dying or dead. Premature leaf drop is a tree's defense mechanism to protect itself from further injury and it may just be going into dormancy. Bend a few smaller limbs (the size of a pencil). If they bend and flex back, the tree is still alive. Or scratch the surface of a few limbs. If you

see green, moist tissue, the tree is still alive. Here are a few tips to help preserve both young and older trees:

- Trees need more water than lawns. During periods of drought, occasionally supplement with deep watering at the drip line (the ends of the branches) of trees, not near the trunk.
- Protect trees from construction injury. Adding, removing, or moving dirt around trees as well as driving over or near the root system can have negative long-term effects. Remember that tree roots can easily extend over twice the distance of the branch spread. Further, simply altering water drainage across the root zone can also have a negative effect.
- Be extra careful during transplanting. Root damage can easily occur. And remember that too much water can be as damaging as too little water (it can suffocate the roots thus preventing necessary oxygen that tree roots need). Avoid transplanting during the heat of the summer. Target such activities during mid to late fall to allow time for root strengthening before next summer arrives.
- Avoid chemical damage due to careless application of weed killers.
- Deep-root feeding in the fall/early winter will help to strengthen the root system over the winter and overall tree vitality. Larger trees should be treated by a certified arborist.

- Finally, select only native or proven tree species known to thrive in our region. The chances of survival increase significantly.

If you have any questions as to the health of your trees, a call to the OSU Extension Office or to a local certified arborist is recommended. A little TLC will go a long way to preserving your trees, so keep an eye on them during these stressful times and you will reap the benefits for years to come.