

Hollywood Park - SPARKS

Tree Care Series: Part I Introduction and Drought

My name is Mark Duff and I have been a resident of Hollywood Park for nearly 17 years. I have worked for the Texas Forest Service, an agency of the Texas A&M University System for the past 18 years. I am a forester and arborist specializing in oak wilt management and forest stewardship. My area covers 12 counties, including Bexar. I have helped Hollywood Park residents with their oak wilt and tree care issues for many years. My office was moved from Kerrville to San Antonio (Jones Maltsberger and Thousand Oaks) this past year. You may have noticed my truck parked at City Hall while I'm in town.

I will begin writing a monthly series that will appear in the SPARKS publication. The series will concentrate on the most pressing tree care issues affecting Hollywood Park. This first issue will focus on the drought, followed by topics concerning proper tree pruning, oak wilt management, ball moss control and finally, proper tree planting and selection. For further information on these and other topics, please visit the following websites: www.treesaregood.org and www.texasoakwilt.org

The San Antonio area is experiencing one of the worst droughts since rainfall records began in 1871. The average yearly rainfall for San Antonio over the past 138 years is 29.04 inches. According to the National Weather Service, San Antonio only had 13.76 inches of rain during 2008, the third driest on record. However, the drought did not start in 2008; because from September through December 2007, we also ran a deficit of 7.28 inches (remember the grass fires New Years Eve 2007?). And, as of this writing February 6th, San Antonio is already down 1.70 inches for 2009. So, during this 17 month period where we normally receive an average of 40.93 inches of rain, we've only had 16.67 inches, a total deficit of 24.26 inches. Therefore, this is the driest 17 month spell recorded for San Antonio, at less than 1 inch of rainfall per month. So, what does all this mean for our landscapes and especially, our trees?

The landscapes in Hollywood Park are clearly suffering from the drought. Most of the St. Augustine grass that has not had supplemental water during this period has or will die. Many of the shrubs and seedlings planted last year that have not become fully established, will also be lost. The mature live oaks, almost as drought hardy as the ash juniper, are showing severe water stress by losing leaves (a survival mechanism) while some have actually died. The urban environment for these trees is harsh. Typically, urban trees are pruned by removing the lower branches to provide clearance for vehicles and views as well as to allow grasses to get enough light to thrive beneath their crowns. The clay soil also gets very compacted. Grasses and trees are really not that compatible, but most of us like the combination and manage our yards to accommodate both. The problem is that the grass roots compete heavily with the tree roots for water and nutrients. And by lifting the crowns, the sun-loving grasses thrive while the soil bakes and dries under the trees. Therefore, a tree under these conditions will require more water than it normally would in a rural setting.

The summers of 2005 and 2006 were also very dry causing live oaks in the Park to die in about 10 different locations. One of these places is across from City Hall on property recently purchased by Hollywood Park at 100 Mecca Dr.. On most of these sites, irrigation had been stopped for many months due to extended vacancies. The trees and lawns had been irrigated frequently creating conditions for shallow tree root development. Once irrigation was stopped, the trees became water stressed and died from hypoxylon canker. Hypoxylon canker can easily be differentiated from oak wilt or other causes by seeing a patch of white or brown fungus growing on portions of the trunk where the bark has recently sloughed off. Hypoxylon will only affect trees that are stressed and is triggered when the moisture level drops to a critical level in the cambium layer under the bark.. From a disease management point of view there is no need to get rid of these trees or their wood.

So what can be done to help keep the trees alive?

Unfortunately many of the trees that are showing drought stress today may die in the next couple of years, even if it starts raining heavily today. Obviously the best way to help these trees is to add water. But doing it efficiently is very important, not just because of the water restrictions, but for your wallet as well. Using soaker hoses that drip water slowly, uniformly and minimize evaporation are the best bet (you can pick these up at any large hardware store or garden center). Concentrate on those feature trees around your house that provide valuable shade. Position the soaker hoses under the dripline of the trees (even though the roots tend to extend far beyond this point, this is the most critical zone). Keep the hoses on for several hours to provide at least one good soaking every two weeks until the drought eases. Turn the pressure down if you see any water run off.

Another important way to help your trees during droughts is to improve the root zone. This is commonly achieved by removing a wide circle of grass from around the trunk of the trees. The larger the circle, the better. Line the edge of the circle with rocks that are large enough to not be knocked around by mowers (last I checked, we still have plenty of rocks in the Park). Remove or kill the grass inside the circle by either covering it with cardboard and newspaper with 3 to 4 inches of mulch on top or with Roundup herbicide during the growing season. The idea is to fill this area with wood chips or compost/mulch. This will keep the grass roots from competing with the trees roots for water and nutrients, and help the soil by adding needed organic material, promoting earthworm colonization, retaining more moisture, accelerating decomposition and keeping the ground surface temperature cooler.

Lastly, pray for rain!