

Heat & Drought Stress are Hard on Trees

By Gary Coroneos

Summer's hot temperatures can pose challenges for your trees and shrubs. During July and August our weather usually becomes hot and dry.

It is easy to see the damage done to our trees from the storms that we have throughout the year; but damage caused by drought and heat can be just as devastating as storm damage, and often, the damage is already done before symptoms appear.

When the weather is hot and dry the combination can cause even more intense injury than when it is only one or the other. Newly planted trees and shrubs (in the ground less than three years) are most susceptible to drought and heat damage, but even established trees can be affected.

For established trees, the first ones affected are those that love water. River Birch, Hackberry, Cottonwood, etc. are usually the first to show signs of drought stress. Their defense is to shed leaves. They do this to reduce surface area which reduces the total area that can lose water. If the hot dry weather is prolonged many other species will start to drop leaves as well such as Maple and Ash trees. These leaves remain green as they fall.

If the leaves do not fall they may become brown along the edges and between the veins. This is called leaf scorch.

As the lack of water increases all the leaves will wilt and the plant will eventually die. If it doesn't die it can be set up for more serious secondary insect and disease infestations in following years since its defenses have been weakened.

Many people water their grass and their flowers but they don't think about watering their trees. Of all the resources a tree needs water is the most limiting. Trees cannot function properly if they do not have enough water.

Everyone is concerned with high water bills so prioritizing watering needs is essential for different types of trees.

Water the trees that are most vulnerable and affected by conditions; newly planted and young trees, trees growing with restricted root zones and trees that have recently received root injury due to construction. If the weather continues to be hot and dry then consider watering the established trees as well.

When watering, the water needs to get down to where the roots are. The soil should get moist down to the depth of 12 inches. The hose should be put on a trickle about half the distance between the trunk and the outer edge of the tree branches. It should be moved every half hour or so to a new location.

For established evergreens whose branches reach to the ground water three to five feet beyond the branches. Do not use a sprinkler; this can cause some major needle diseases that you do not want.

A general rule of thumb is to use approximately 10 gallons of water per inch of trunk diameter; measure trunk diameter at 4.5 feet above the ground. The time needed to give the tree the correct amount of water can be calculated by putting the hose on a trickle in a 5 gallon bucket and seeing how long it takes to fill.

When the weather turns hot or dry be on the lookout for early symptoms of drought stress. If damage is light to moderate, simply watering your trees and shrubs can bring them back to health but if the weather persists a longer watering regimen may be required. Remember to water slowly, dispersing the flow of water to get the water deep down to the tree roots. Watering short periods of time only encourages shallow rooting which can lead to more drought stress.

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