

The Effect of Drought and Heat on Landscape Trees

The drought and high heat we have been experiencing this summer can produce many problems for trees. Some noticeable effects include leaves wilting, leaves changing colours, leaves dropping early, lack of new growth on branches, dieback of some branches, bark splitting and sun scorch. Diseased or infested trees may not survive. Trees may even come loose at the base as roots dry out. Insect infestation and disease spread faster since the hot humid weather is ideal for their reproduction.

Landscape trees planted in home lawns are more susceptible to the effects of drought and higher temperatures than are trees growing in a forest.

In the forest various trees grow close together creating a micro climate. You have probably noticed how much cooler it is when you walk in the forest on a hot summer day - that's the micro climate the trees have created. The soil is covered with a buildup of dead leaves, branches and small shrubbery undergrowth. This mixture helps to enrich the soil as well as to retain moisture and to keep the soil cool.

In a landscape trees are planted for various reasons such as to provide shade, hide an area or view, or to complement a nice landscape. As a result the trees may not enjoy all the benefits of a forest tree but must adapt to a different environment. With a little human help these trees can still be healthy thriving specimens. By keeping the tree healthy it will be more resistant to disease, insects and environmental impact such as wind, high heat and drought.

The soil in most of our lawns is clayish with very little humus or organic matter. It frequently is well compacted from the use of heavy equipment used to level lawn areas. This compaction prevents good aeration and percolation which make it difficult for water and air to penetrate the soil and be absorbed by the tree roots.

One help for a landscape tree is to remove the grass around the base of the tree and cover the soil with at least 4 inches of mulch. This will help retain moisture and keep the soil cooler.

A better solution is to remove the grass out to the dripline of the tree (which extends to the longest branches) and create a bed adding manure and compost. A 4 inch layer of mulch should cover the whole bed. By creating a bed the soil will be loosened to better absorb water and air, nutrients are provided, the soil is kept cooler and the mulch

will prevent the soil from drying out.

Another advantage to removing the grass around the tree is the prevention of injury to the tree. String trimmers frequently damage the bark creating an entry point for insects and disease. Further compaction is also reduced as people tend to keep heavier equipment away from the mulched areas.

The best way to water the tree is to place a soaker hose around the tree about 2/3 of the way out to the dripline. Organic fertilizer or an inch of manure can also be added there as well. Tree spikes inserted in this same area also quite effective. This is where most of the feeder roots are located. An oscillating or pulsating sprinkler can also be used.

Guy Gariepy is a horticulturist and owner of Gariepy Lawn and Garden. He can be reached at 613-542-8077 or ggariepy@cogeco.ca