

## **Tree-Care: A Must In The Wooded Northwest**

The Pacific Northwest has some of the most magnificent temperate climate forests in the World. Few of us realize how precious and rare the trees are which seem to be everywhere around here. Uncared for in residential areas these giants can become dangerous hazards, but tree care should not equal tree removal only.

One of our dominant trees is the Western red cedar. This particular species only grows along the Pacific coastline in a 50-100 mile strip from South BC to mid-Oregon. Western red cedars are prized possessions in most of the World's arboretums and botanical gardens.

We take cedars for granted and use it widely especially since its wood is so durable. The once enormous trees are gone and the now so called large specimens are mostly young and small trees. Cedars could grow really huge and live a long life if left undisturbed for hundreds or thousands of years.

They have shallow roots, which enable them to grow in our poor soil conditions. The roots are widely spread, often three to four times the width of the crown and that is why they are able to take up so much water from the ground. These trees are crucial in our stormwater management and erosion control efforts. The wide root spread and shallow roots make them vulnerable to damage as well. If the roots are undisturbed, the tree can withstand strong winds with ease. In our everyday life however we often compact and cut these roots not realizing that we are too close to a cedar and thus we create trees that are hazardous.

For several years we had drought conditions in the summers and even in winters at times. Cedar trees not only use a lot of water, it is crucial for their health to have plenty of moisture in the ground. As we look around we can see that many cedars are stressed now because they suffered from the previous severe droughts. If a tree is stressed beyond its limit, it will become a hazard.

The other dominant conifers are Douglas firs. These trees have a larger natural habitat than the cedars nevertheless they are a North American specialty. In the World, nurseries are growing them as Christmas trees, very expensive exotics of the sort.

Doug firs, for short, can take more diverse conditions than the cedars: they tolerate drought, poor soils, and pollution better. Their roots are also shallow, but not as wide spread. They grow faster and live shorter if we measure lifetime in centuries. Their wood is different and breaks easier; however they are still amazingly strong and flexible trees. They use lots of water as well, but cannot tolerate standing water. These trees can become vulnerable to root rot if the roots are damaged. Wind naturally topes them, but trees that are topped by human action and exposed to wind are considered hazardous because the wood is weakened.

Western hemlocks and Sitka spruces are no longer common trees because the forests are gone from so many areas.

Hemlocks are weak wooded trees, but important in the woods. They are sensitive and will easily fail if disturbed. They also have shallow roots and not as widely spread as the cedars' roots. Unfortunately they are attacked by the hemlock wooly adelgid which is slowly pushing them over the brink now.

Sitka spruces grow slowly, but they are wonderful trees. They live for many centuries if allowed and they are very tough trees. Sitka spruces love wet areas and they are often found near wetlands. These trees use lots of water just like the cedars, and they suffer from the drought the same as well. Our national monument tree in the Olympic rainforest is a huge Sitka spruce.

The Alaska yellow cedar has two forms which are native to our area. The straight form is often confused with the Western red cedar even though it is shaggier looking. The weeping form is widely used in landscapes as an ornamental tree because of its unique shape. These are called cedars, but they are a rare cypress species. Only one other member of the genus is known in Asia.

These trees can handle drought and wet conditions very well. They can live for a long time and are part of stormwater management practices all along the Pacific Coast in their native habitat from Alaska to North Oregon. Both forms are collectors' items in the rest of the World. Their wood is valuable and used widely.

We are home to many deciduous trees as well however these species are intermediate in our area. This means that naturally they only inhabit areas until the conifer forests take strong hold or they are understory trees growing under the sheltering conifer canopy.

Due to our activities and disturbance in the forest habitat cottonwoods and alders are dominant species now in Western Washington. They are weak and fast growing trees, but an important part of the natural cycle as the forest reclaims a site. These trees are short lived and can become very hazardous if damaged by wind or human activities. We still should look at them as valuable members of the environment because they provide habitat to wildlife and take up tremendous amounts of water with their large yet shallow root systems.

Trees are important and beneficial in the environment. They are solutions to drainage problems, they cool us in the summer, shelter us in the winter, they provide us with fresh air, habitat for our favorite wildlife, and they calm our stressed minds.

We have a tendency to look at them with suspicion after serious wind storms. Removing them all is not the solution. Sites need management. Forests can do this for themselves more or less with little additional help needed from us, but disturbed sites and areas where humans live and work need to be cared for. Healthy trees will rarely fall in storms. Most of our trees have shallow roots because we live on glacier born soils. Our activities make them more vulnerable, so we have to look after them to ensure their survival. Professionals who are knowledgeable about trees can evaluate a site. They can pin-point potential failures and calm worried homeowners. Regular monitoring of the trees is essential whether the site is presently under construction, has a landscaping project ongoing or not. It is a good idea to have an annual walk through done wherever large trees are present. Almost always when trees fail in a storm a very clear cause can be found and almost always the failure could have been prevented.