



# THE LANDSCAPE CENTER

## Winter watering is important

Trees, like all plants, can only be healthy when they have healthy roots. Mature trees are capable of storing enough energy to live from an injury or dehydration. Smaller trees and other plants result of dehydration is weakening the plant, loss of branches, and possible death. Many conditions can result in root injury and loss; soil compaction, too little water, too frequent watering, and digging or planting in the root zone are all common causes. In our area, perhaps the most significant cause of root loss is winter dehydration.

Our winters are frequently dry and without snow cover for extended periods. When trees and shrubs have had the opportunity to harden off in the fall, they are more capable of withstanding extremely cold temperatures. However, when the soil dries out over the winter, roots also dry out and die. Thus the winter kill that occurs here is due not to cold temperatures but to dehydration. The last three winters have all been quite dry, resulting in cumulative root loss.

The fine feeder roots that take up water and nutrients are capable of rapid growth given the necessary conditions of warmth, soil moisture, and oxygen. Oxygen is available if the soil is not compacted, and not kept too wet. When we try to make up for the lack of winter water by watering too frequently in the spring, we create conditions where the lost roots are not able to re-grow. Over a period of several years, this loss can be sufficient to kill trees. The root loss that occurs over the winter may not show up until the heat of summer and causes significant stress to the trees when leaves, needles, twigs and even branches may die.

Supplemental water over a dry winter is one of the most important things we can do to keep our trees and shrubs healthy. A deep soak once a month is usually sufficient. Choose a day when the daytime temperature is above freezing, and water early enough in the day for the water to soak in before the evening freeze. Water that freezes on the soil surface will cause suffocation of the roots, and defeat the purpose.

It is important to understand where the roots of trees are located. Most roots are in the top 12 to 15 inches of soil, and on mature trees they may extend outwards several times the height of the tree. This means that in established landscapes, the entire yard may need to be watered to keep the tree roots from drying out. Fortunately, our lawns and perennial beds will also benefit from this supplemental water. Since it only needs to be done once a month, the water can be applied to small areas during the warmest parts of the day, eventually covering the entire yard.

Watering in the winter is inconvenient, certainly, and may also be costly. It means getting out the hoses and sprinklers, and draining them when you are done. But if you have shopped for trees, you are aware of their cost. Mature trees often add thousands of dollars to the value of the landscape and they are an investment worth protecting. Once trees begin to show die-back it may be too late to save them; protect those valuable roots by providing winter water before problems occur.

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