

Do I Need to Water my Trees in Winter?

Part One of a Two Part Topic

I get asked this question a lot. The simple answer is yes, but let me explain why it is very important to water your trees in the winter.

Evergreen trees remain somewhat active in the winter and especially when we have warm temperatures in the 40s or above. Deciduous trees, even though they lose their leaves, have active root growth in fall and winter until soil temperatures get too cold. This root growth activity requires water. I want to stress this point, fall is usually dryer than spring and root growth is very active in the fall and early winter, so watering during this period is very important. Sprinkler systems are being turned off at this time. Root growth and water uptake is also very active in early spring and this can be a problem after a dry winter.

Water in the soil, acts as a heat sink that regulates the soil temperature. It keeps the soil from over heating in summer and from getting too cold in winter. It softens and lubricates the soil in fall and spring when roots are putting on the most growth. When it is cold enough, the water in the upper soil layer freezes; this insulates the lower layers of soil from any extreme air temperature fluctuations we might get. Also, when the soil freezes the water expands moving and loosening the soil so when it melts the soil is less compacted. There are many reasons the soil needs to remain moist through the winter.

The climate of the Colorado plains next to the foot hills does not supply enough precipitation for trees to grow and be healthy with out additional water. Some years are especially dry and warm compounding the problem. So, if we want to give our trees the opportunity to grow and be healthy we must supply enough water so they can function the way they were designed to function.

Trees use the unique properties of water to transport the raw materials (nutrients and minerals) they need to manufacture sugar and energy that are use as a fuel supply by the tree. If there is not enough water, the supply of necessary materials is limited, which greatly reduces the energy that is manufactured for the tree to survive. Trees that are stressed by lack of water become sickly. They have weak chemical defense systems and are readily attacked by insects and disease. Water also is used by the tree for structural strength and flexibility; drought stressed trees break much easier in storms.

Although the importance of having enough water goes much deeper into cellular functions and activities of the tree, the problems caused by lack of water that we have already discussed should make the point that trees need to be watered in the winter.

In Part Two, of this topic, I will discuss how much water is needed, how often you should water, methods you can use to water when the sprinklers are turned off and where water should be placed under the tree.