

Fall and Winter Watering: Essential for Healthy Trees

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Although trees' functions slow down during the winter months, it does not mean that all of their functions cease. Trees are still taking up water and nutrients through their root system. It is especially important to provide supplemental water during prolonged dry periods during fall and winter.

Long, dry periods during fall and winter can cause injury or death of plant root systems. Affected plants may appear perfectly normal and resume growth in the spring using stored food energy. But they soon weaken or die in late spring or early summer when the stored energy runs out. Weakened plants are much more susceptible to insect and disease problems.

Contrary to popular belief, tree root systems (with the exception of a few species) DO NOT have a large, deep taproot that seeks out water: Tree roots are not like carrots. Instead, they have larger anchoring roots and smaller, finer water absorbing roots that generally grow within the top 12 inches of the soil. The smaller water absorbing roots can spread out as wide as the tree is tall.

Where to Water Usually, this is within the tree's dripline. The dripline is from the trunk out to the furthest reaching branches of the tree.

Water Deeply and Slowly Apply water so it moistens the soil within the dripline to a depth of 12 inches. Water many locations within the dripline—not just one side. Deep watering means watering less often but for longer periods of time. For example if you have a sprinkler system and it runs every day or every other day for only twenty to thirty minutes, this is shallow watering. If you change your watering to three times a week for an hour or so, this is deep watering. The key is to make sure you are achieving 12 inches of soil moisture. Also, refrain from keeping the soil constantly wet, let it dry out a bit before watering again—tree roots do not like to be kept wet, and they will start to exhibit signs of stress and disease under continual damp conditions.

When to Water During fall and winter (October thru March), water one to two times per month, depending on weather, temperature and soil conditions. Do not water when temperatures are freezing and if soil is frozen. Apply water early in the day so it will have time to soak in before possible freezing occurs during the nite. If water freezes around the base of a tree or shrub, it can damage the bark. Monitor weather conditions and water during extended dry periods—four to six weeks without precipitation.

Mulching Mulch helps retain soil moisture and keeps out competition from weeds and grass. Apply mulch within the dripline and keep six inches away from the trunk of the tree. Apply at a depth of four inches. Mulch materials include woodchips, chunked bark, leaves, evergreen needles, and fabric mulch (NOT BLACK PLASTIC). Fabric mulch (i.e. weedbarrier) needs to be water permeable.

Moisture is Needed to Avoid Disease Water stressed trees are more vulnerable to disease and insect infestations and branch dieback.

Do Not Fertilize Trees that are Stressed Fertilizer salts may burn roots when there is not sufficient soil moisture present.

Prioritizing Watering Needs During dry periods and/or water restrictions, trees should receive the highest priority for watering since it takes years to replace them. Give higher priority to newly transplanted trees and young trees (1 to 7 inches in diameter)—they have a limited root system and need supplemental watering even when not experiencing drought conditions. Trees growing in a restricted root zone, such as those in landscape strips between sidewalks and streets, also need higher priority when watering.

For more information visit these websites: www.ext.colostate.edu, www.watersaver.org, www.greenco.org .