

## Denver Area Winter Watering for Trees

The Denver area's tree canopy provides many benefits to our urban environment. Many of the trees in this region are already under stress from last year's dry winter and this year's hot, dry summer and will need extra care this year to survive. Previously, trees have been watered when sprinklers were watering the surrounding grass. This year because of the extreme heat and low precipitation, trees must be watered by hand or with a deep root feeder or soaker hose.

Periods of drought are common on Colorado's Front Range. This area is naturally a semi-arid, shortgrass prairie that would have few trees without irrigation. Growing trees here is difficult in wet years let alone in drought years. Drought makes growing healthy trees in this region all the more challenging and reinforces the value of a majestic shade tree. Properly placed and maintained trees are an asset to the environment and to our community.

Root systems can spread 2-3 times wider than the height of the tree. Most of the tree's absorbing roots are in the top 12 inches of the soil. Water should be applied within the dripline (see below). Water deeply and slowly, moistening the critical root zone to a depth of 12 inches. Methods for watering include a deep root fork or needle, soaker hose or by hand with a soft-spray wand. If using the deep root fork or needle, insert the device into the soil NO DEEPER than 8 inches.

Water deeply and slowly. Apply water so it moistens the critical root zone to a depth of twelve inches. Methods for watering include a deep root fork or needle, soaker hose or soft spray wand. Apply water to many locations under dripline. If a deep root fork or needle is used, insert the device no deeper than eight inches into the soil.

How much water should I apply? As a general survival rule, apply ten gallons of water for each diameter inch of the tree. For example, a two-inch diameter tree will need twenty gallons per watering. Use a ruler to measure your tree's diameter.

When should I water? Fall and winter watering, October – March, one to two times per month, depending on weather, temperature and soil conditions. Spring and summer watering, April – September, three times per month, depending on weather and watering restrictions.

Mulch helps conserve soil moisture. Apply organic mulch within the dripline, at a depth of four inches. Leave a six-inch space between the mulch and trunk of trees. Mulch materials may include wood chips, bark, leaves and evergreen needles.

Consistent moisture is needed. Drought stressed trees are more vulnerable to disease and insect infestations and branch dieback. Keep a watchful eye for anything that looks out of the ordinary.

***A dripline around a tree is located at the edge of the branches.***



## Denver Area Winter Sunscald on Trees

The Denver area's famous sunny, dry winters are great for people, but not always the best thing for trees, especially if the trees are native to areas of the country that are cloudy and cold through most of the winter. On those warm sunny winter days, the high elevation and clear skies combine to give your tree something like a sunburn. The sun warms the bark and signals the tree to start sap flowing up through the trunk, but just as the tree decides to do that, the sun sets and the temperature drops and that sap freezes and expands inside the bark. This freezing will often crack the bark open and create a winter wound that the tree will not be able to heal until spring.

Sunscald on an Ash tree.

Young trees with dark colored bark, or smooth bark are the most susceptible to sunscald and should be protected from our intense winter sun.

The most common method used to prevent sun scalding on the trunks of trees is to wrap the tree up to the first branch with white paper overlapping approximately thirty three percent each time around the tree. The white paper is effective in reflecting the heat of the sun off the tree. The paper should be applied after the tree has gone dormant for the winter and taken off before it becomes active again. If the paper is left on too long it can interfere with the growth of the tree and harbor insects that may damage the tree. The amount of light a tree receives on its southwest side is correlated with the amount of sun scald the tree endures. Reducing the amount of light the tree is exposed to by planting a shrub or bush strategically to shade the southwest side is less effective than wrapping, but can have better aesthetic qualities for landscaping.



The placement of the trees is an important in preventative maintenance. Place trees that are highly susceptible, which include trees with dark, smooth, and thin bark away from direct sun or next to a building. Any area that has the potential to heat up drastically during the day can be a problem. Carefully select the correct species for your area. This will limit the likelihood of the sunscald occurring on the landscape trees. Plant evergreen shrubs around susceptible trees

to help shade the tree bark during the winter which will help reduce sunscald.

If the tree is in a problematic area the trunk can be wrapped in a white tree wrap, such as heavy kraft paper or burlap. This covering will not insulate the tree, but will help to reflect the light that would normally heat the trunk. Wrap the trunk from the soil line to the lowest branch in the fall and remove the wrap in the spring.

