

WINTER CARE OF TREES AND SHRUBS

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Winter Watering

Watering trees before and during winter is probably the most misunderstood concept in tree and shrub winter care. Fluctuating temperatures, lack of soil moisture, intense winter sun, dry air and windy conditions are quite hard on trees, particularly evergreens. Watering of evergreens is very important because they retain their leaves (needles) throughout the winter. In late winter, evergreens can start to transpire. If water is not available in soil, either due to lack of water or that the groundwater is frozen, the trees or shrubs will become very dry and brittle – a term called *desiccation*. In extreme desiccation, evergreen needles can turn red, brown and very brittle – a term called *sun scorch*. Sun scorch usually occurs on the west and south side of the trees where the trees are subject to intense winter sun.

To prevent desiccation or even sun scorch, water evergreens considerably, late in the fall before the ground freezes. The root system should be watered to depth of at least 12 inches. Many Montana soils may need several inches of water and also may require several hours of watering for larger trees. Evergreen tree roots can extend two times the diameter of the tree. Be sure to water from the trunk to much past the dripline of the tree to be sure all the roots get the moisture the tree needs.

In areas where there is little continual snow cover, such as the Highline and Eastern Montana, evergreen trees and shrubs should be watered again in late winter from about mid-January until spring when the ground thaws. This is especially important during times of unseasonably warm winter days when we experience Chinooks. If the daytime temperatures increase above forty degrees, water evergreens again. If there are continual warm spells, you may need to water as often as twice a month in February, March and April.

Although it may seem unconventional to water a tree in the winter due to the ground being frozen, water does get to the roots through the cracks in the frozen soil much like street trees can get water through the cracks in the sidewalks and pavement. Don't be afraid water evergreen trees in winter whenever you get the chance.

Tree and Shrub Protection

Newly planted evergreens as well as smooth and dark bark deciduous trees need to be protected from the intense winter sun that rises and sets low in the horizon. This intense sunlight can cause sun scorch in evergreens as described above, but it can also cause sun scald in deciduous trees that have smooth or dark bark. Sun scald causes damage to the bark and the tissues below and usually occurs on the west and south side of deciduous trees. The sun warms the trunk, causing the cells to metabolize during warm, sunny winter days. When the nighttime temperatures plummet, the cells freeze and burst causing damage not only to the bark, but often to the whole tree.

For deciduous trees with smooth or dark bark, it is best to wrap the tree with tree wrap or use any of the many types of trunk guards to protect the tree. Wrap or attach the guard up to the first branch before the first of the year. You also can paint the tree with white latex paint to reflect the intense light. However, paint can be unsightly and never use oil-based paint. For landscape aesthetic purposes, I would stick with the wraps or guards and be sure to remove them in the spring.

For newly planted evergreens, it's a good idea to protect the south and west side of the tree or shrub from the intense sun in the winter. This can be accomplished by standing pallets on end, putting up snow fence or even burlap tied between two fence posts. The idea is to protect the evergreens from the sun, while allowing some air movement.

Common Mistakes around Sidewalks

Evergreen and deciduous shrubs next to sidewalks often get quite a beating in winter due to snow removal. It is a common myth that one should cover the plants for insulation. This may be true for herbaceous ornamentals (those that die back to the ground each year), but woody ornamentals can be damaged by the heavy snow loads. Never pile snow on woody shrubs. If they are in an area that is convenient for snow removal, you may want to remove or relocate the shrub.

Sidewalk salts also can be deadly to trees and shrubs next to the sidewalks. This is especially true for evergreens. If you use sidewalk salts, use them sparingly, but preferably not at all. Sometimes washed sand will do the trick. It won't affect the shrubs and it even costs quite a bit less.

Pruning

Winter, most commonly late winter, is the best time to prune most trees and shrubs. When deciduous trees are dormant it is easier to see the branching habit and it makes it easier to cut and remove the unwanted branches. Winter is also a better time because there are fewer bacteria and fungi around that can get into the wounds caused by pruning. The exceptions to winter pruning are spring flowering ornamental trees and shrubs. These usually set their flower buds in the summer. Pruning in winter will only remove the flower buds. It is best to prune spring flowering ornamental trees and shrubs in the late-spring, just after they are done flowering.