

A large, weathered metal watering can is shown from a high angle, tilted to the right. Water is being poured from its spout, which has a circular nozzle with multiple small holes. The water is captured in mid-air, creating a soft, misty spray that falls towards the bottom right of the frame. The background is plain white.

HOW MUCH

As usual, the answer is 'It Depends'

If the moisture evaporates on warmer windy days and is not replaced, the roots can begin to shrivel and die in the dry soil.

Winter watering when appropriate will keep trees in the best condition possible to survive until spring moisture arrives.

Tree roots need enough moisture to keep their cells from dying during winter. The dormant buds on the tips and along the branches can also shrivel and die without plentiful moisture.

Most years, there is some snow cover the majority of the winter, but there are weeks when there are open lawns and above-freezing temperatures, and homeowners can get out the hoses and water.

How much moisture a tree requires depends upon the type of tree, the time of the season, and the weather during fall and winter.

Nature's unique antifreeze

Trees are mostly water, up to 90 percent, along with the cellulose and minerals. All living cells contain water to keep life going but trees usually have less

in winter. Trees will transpire water in the fall to concentrate sugars and carbohydrates in their cells for winter, in effect making their own antifreeze. However, trees can become desiccated to the point of cell death without moisture surrounding the roots. If the moisture evaporates on warmer windy days and is not replaced, the roots can begin to shrivel and die in the dry soil.

Fall and warm winter days with temperatures above 45 degrees and with little wind are a great time to drag out the garden hoses and try to give these trees a drink.

The wise tree care provider will be aware of how long filling the soil profile takes to benefit the trees.

How much to water?

How much water do the trees need, or how much water should be applied to keep the tree roots moist?

That answer also depends, in part, upon the type of soil. Filling

SHOULD A TREE DRINK WHILE DORMANT?

a clay soil with moisture may take a long time, but that moisture is retained quite well; however, it may run off if the water is left on very long and runs too fast. Slow and steady is a good rule to follow when watering clay soils. Filling a sandy soil takes less time as the water runs right in, but it is also not retained as long, so more frequent watering may be needed.

I recommend learning how long filling the soil profile in any particular location takes, then water for that length of time every time. The soil around trees and shrubs should be moist down 10 to 12 inches to maintain healthy roots. If the yard only has grass or perennials, then the moisture should penetrate to a depth of 6 to 8 inches. In summer, this can be measured with a long screwdriver pushed into the soil to most efficiently water your trees (you will feel more resistance when the screwdriver hits dry soil) or by digging a hole with a shovel to see how deep the moisture has penetrated.

Winter watering is a bit trickier than watering in summer. Frost levels are a factor that can reduce watering time. If the soil is frozen at 4 inches down, then the moisture cannot penetrate the full distance desired. So if 12 inches is your usual goal, you may only need to water one third the usual time to fill up those first 4 inches. Be sure to watch the water and make sure it is not just running off due to frost and making a puddle that eventually freezes, creating a slipping hazard.

Getting moisture into the soil

Soaker hoses are one of the most efficient ways to water, since they keep the moisture near the soil level so little is lost to evaporation or carried away by wind. However, be sure most of the water is gone from soaker hoses before it freezes. If soaker hoses are not used, then try using sprinklers that cover a large area but keep the water lower to the ground to minimize evaporation loss. Watering with a hose can also be efficient if adequate attention is paid so that you don't over or under water.

Type of tree important

Young or newly established trees have less extensive root systems than more mature trees, so special care should be taken to ensure they don't dry out.

Many of the trees recommended by UW Extension use less water than some native riparian trees. Knowing the tree species and its particular needs will aid in adjusting watering schedules throughout a specific winter or over a number of winters with differing moisture conditions in any particular site across Wyoming.

If you have questions about watering techniques or specific water needs for the trees in your care, there are UW Extension offices in every county to answer your questions. For more information on winter watering, be sure to check out UW Extension publication B-1186 on winter watering at <http://bit.ly/wyowinterwater>.

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