



truckee meadows
COMMUNITY
FORESTRY
COALITION

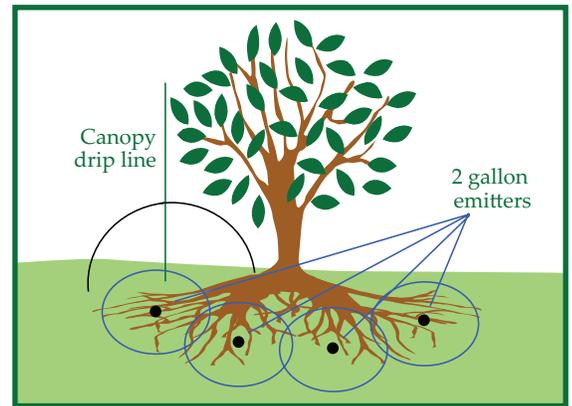
TREE TOPICS in our community

Watering

What are the proper tree watering methods to ensure our trees are healthy and thriving?

The primary goal in tree watering is to apply the least amount of water needed to keep your trees growing and healthy. However, there is no simple guide to tell us exactly how much water a tree will need to thrive. In order to keep trees properly and efficiently watered, homeowners can:

01. Install a drip irrigation system, to run on a programmable timer, which will allow for easy adjustments to watering times and amounts depending on the season.
02. Install a watering basin from surrounding soil and cover exposed dirt with mulch to retain moisture.
03. Evaluate tree watering needs as part of the overall landscape and add additional emitters as the tree grows.



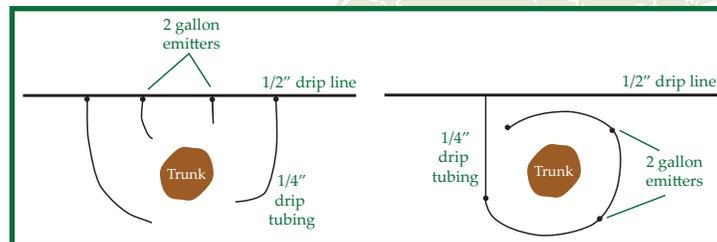
Tree roots can extend 3 to 5 times beyond the canopy and 6 to 12 inches deep.

How should a new tree be watered in comparison to a mature tree?

A newly planted tree should have a raised rim of dirt, approximately four inches tall, surrounding the tree's root ball, not the trunk. This "tree watering basin" will keep the root ball and the soil around it moist, but not soaked.

Soil type and weather conditions may alter how much water a new tree needs, but in general, filling the basin three times per week is a good starting place, for young trees. If a drip irrigation system is in place, set four, two gallon emitters to run for one hour, three times per week. Regardless of the method, the soil needs time to dry between each watering.

A mature tree has a wide radius of absorbing roots and needs more water to reach this radius. A watering basin is not practical for this need, but a drip irrigation system, which can be modified as the tree grows, will provide adequate water in a complete circle around the drip line. This will encourage the roots to grow evenly away from the tree, making it strong and healthy.



Drip irrigation system (viewed from above)

Did you know?

- Trees generally require twice as much water as turf, making it difficult to properly water both at the same time.
- A drip system is ideal for tree watering because watering time and the amount of water emitted can easily be modified as the tree grows.

Participants

- City of Reno Recreation & Parks Commission
- City of Reno Urban Forestry Commission
- City of Sparks
- Community Services Agency
- Dale Carlon Consulting, LLC
- Keep Truckee Meadows Beautiful
- Kennedy-Jenks Consultants
- Los Verdes Arborists
- The Nature Conservancy
- Nevada Division of Forestry
- Nevada Landscape Association
- Nevada Shade Tree Council
- NV Energy
- Signature Landscapes
- Truckee Meadows Water Authority
- University of Nevada Cooperative Extension
- Washoe County Commission
- Washoe County District Health, Air Quality Division
- Washoe County Regional Parks & Open Space
- Western Regional Water Commission
- Wilbur D. May Center & Arboretum

Contact Information

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Does the soil in the Truckee Meadows impact our watering abilities?

Yes. Compacted soils, which are common in the Truckee Meadows, make it difficult for trees to get the water, nutrients and air that they need to thrive. An inexpensive tool known as a root feeder is the best way to get nutrients to the roots of a tree living in compacted soil.

A root feeder joins to a garden hose and has an attached container that is filled with fertilizer. The probe is pushed into the soil around the root zone of a tree which allows water and fertilizer to penetrate the compacted soil. Using a root feeder three times per season is recommended for maintaining tree health.

How will different surroundings impact the amount of water that is needed?

When water is applied to soil around a tree, the roots absorb some of the water, leaving the rest to evaporate. This water loss is called evapotranspiration (ET) and is measured as a rate. Trees living in heavily urbanized areas typically have higher ET rates than those living in suburban areas. Higher ET rates mean more water is lost to the atmosphere. Therefore, more water will need to be applied to the tree. Other elements, such as amount of exposure to direct sunlight, outdoor temperatures, slope, humidity and wind, will also alter the amount of water a tree requires.

What is a good way to tell if the soil is moist enough?

Take a handful of dirt and try to roll it into a ball. If the soil doesn't mold into a ball, it is too dry to provide water to your trees. In addition, if the ball of soil won't crumble when rubbed, it is too wet. An ideally moist soil can be molded into a ball and then will crumble when rubbed...

What are some common signs that will let us know if our trees are not getting enough water?

Check your tree for water stress by looking at its leaves. If there is noticeable wilting, the tree needs water. Leaves that are normally shiny when healthy will take on a dull appearance, and bright leaves may turn gray when they are water deprived. Additional signs of stress can include early fall colors, prematurely falling leaves and death of new leaves.

Is there a possibility of over-watering trees?

Yes. Although water is vital to plant health, too much water can damage or kill trees. Watering a tree without good drainage can cause the tree to suffocate or get a disease. Over-watering can also cause rotting and salinity problems.

What is the proper way to water during non-summer months?

Outdoor watering should be lessened during these months, but remember that fall and winter in the Truckee Meadows are often characterized by dry air, little precipitation, a lack of moisture in the soil and wide outdoor temperature swings. Dry periods can injure or kill tree root systems without showing immediate signs. In addition, new trees are more vulnerable for the first two years, making it important to pay special attention to these trees during this period. The following winter watering tips will help ensure the health of your trees during the non-summer months:

- Evergreens need water all year since their leaves (needles and scales) transpire water all year long.
- Give your trees extra water every two to four weeks if Mother Nature is not watering.
- Irrigate when temperatures are above 40 degrees and early enough in the day so the water won't freeze overnight.
- Avoid spraying trunks as it can increase the risk of frost injuries.
- To help retain moisture, put a thick layer of organic mulch around the tree.
- Remove snow from trees to avoid breakage.
- Avoid piling snow around trees as suffocation can occur.
- Keep roofs clear of snow to prevent damage from falling snow and ice.

As the weather begins to warm up, it is best to start using a garden hose until there is no more danger of irrigation systems freezing. Normal watering can resume once the chance of a freeze is slim.