

“I Need More Water”, and other things your tree is trying to tell you.

Patrick Mangan, MSU Missoula County Horticulture Agent

That tree in your yard, in the parking lot strip of your favorite store, or along the fence line of your property probably needs more water than it is getting this summer. A tree can't outright tell you it needs more water, but it could probably use more than it is getting through the sprinkler or drip irrigation.

Trees, like humans, use water for a variety of daily growth and maintenance processes. All plants use water as part of photosynthesis, the manufacturing of carbohydrates. Plants also use



water to cool down by evaporating water out of small pores found in the leaf surfaces, called stomata, much the same way we sweat. This process is called evapotranspiration.

Often times, a tree does not show outward symptoms of a moisture deficit until it is severely stressed. Deciduous trees will sometimes cup, or curl their leaves as a sign of moisture stress, but that isn't always the case. We usually see signs of moisture stress in trees when they are

well beyond the initial stages of deficiency. Evergreen trees can start to drop needles, or needles will turn orange at the tips. Deciduous trees can display leaves with scorched outer margins, or drop leaves all together.

Once these symptoms of moisture stress appear, it is too late to reverse the signs for the growing season. The best plan of action is to ensure your trees have adequate water throughout the whole growing season and into the fall.

While every species of tree is different, a good rule of thumb is to supply ten gallons of water per week for every inch in diameter of the trunk. As an example, the maple tree in my front yard, with a four inch diameter trunk, would need approximately forty gallons of water every week to maintain healthy conditions.

Most yard sprinkler and drip irrigation systems are not set to deliver that volume of water to yard trees. A lot of the water delivered by sprinkler systems is intercepted by grasses in the yard, leaving less moisture to infiltrate into the rooting zone of the trees. Your trees need supplemental water above and beyond what the yard sprinklers supply in order to be at their healthiest.

Use a slow and thorough strategy when considering supplemental water for your tree. A low-volume flowing hose placed under the dripline of the tree will allow water to soak into the soil to a target depth of twelve to eighteen inches. Move the hose around to different places along the dripline. The dripline is the imaginary line on the ground that follows the outer edge of the leaf canopy of the tree. Water all around the rooting zone of the tree, which can radiate out from the trunk as far as two-and-a-half times further than the dripline of the tree. A low pressure sprinkler placed around the rooting zone of a tree can do a similar deep watering of the area it is hitting. Leave the sprinkler in the same place to thoroughly water an area, and move it around occasionally from place to place, water-

“I Need More Water”

continued

ing all sides of the tree.

It is best to direct sprinkler water off the foliage of trees when you are watering them. Water sitting on the foliage can promote the growth of bacterial and fungal pathogens, and lead to cosmetic and disease issues in your tree.

A tree that has adequate water is more likely to be healthy, and have fewer disease and insect challenges. This dry spring has not brought us much in the way of spring rains, which usually provide a couple inches of moisture onto the spring soil and charge up the subsoil with stored water. In some locations, trees may soon be looking for supplemental water to keep cool and healthy. So, get out there and monitor your subsoil moisture content, and be ready to give your trees the water they want and need throughout the summer, and enjoy a healthy tree through the rest of summer and the fall.



Montana Watercraft Inspector Appreciation Week

August 2nd - 6th

Make sure to thank a Watercraft Inspector for protecting Montana's waters!



On May 9, 2021, the Healthy Acres Healthy Communities Foundation, the philanthropic partner of the Missoula County Weed District and Extension, and the Missoula Butterfly House and Insectarium announced their \$5 million capital campaign to help build the Rocky Mountain Gardens & Exploration Center, the premier center for scientific learning in Missoula. Thanks to the generosity of a \$350,000 gift from the M.J. Murdock Charitable Trust and a \$1 million anonymous gift, plus the support of several other regional and local philanthropists, the organizations' Join the Buzz campaign has raised \$3.7 million of its goal. The nonprofit organizations have been quietly fundraising since 2019 and developed some creative ways to introduce the project to community members during the pandemic restrictions. They attribute their success to a team of local community leaders and organizations who believe in this project to create a unique destination for Missoula that will connect us with our natural world and each other. Fundraising efforts continue and expect to see the Join the Buzz campaign information displayed at local nurseries and businesses. We invite you to learn more about the project and how to contribute at JoinTheBuzzMissoula.org. To show your support for the project, we also encourage you to post photos of plants, bugs and kitchen creations with hashtag #jointhebuzz.

Thank you for joining the buzz!