K-STATE Research and Extension | Meadowlark District

December 15, 2023

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Watering in the Winter

When plants are dormant, it is easy to assume they do not need water to survive. While dormant plants may look dead, as they typically drop their leaves, they are still alive, just not actively growing. As with all creatures, being alive means water is essential.

One of the most important reason that plants need water in the winter is for their roots. Dormant plants look as if nothing is happening, but their roots underground are still working on maintaining energy and resource stores for the spring. While they are not taking up nearly as much water as they do during the growing seasons, the freeze thaw cycles of our winters, and the dry winds that come with it, can draw water out of roots and soil.

Drought stress in early winter can prevent the plant from undergoing the physiological changes necessary to ensure it can withstand the cold, making it more prone to frost damage. Plants that loose too much water during the winter will have a harder time maintaining and accessing their stored resources and energy to leaf out in the spring. Plants that receive no moisture during the winter are much more likely to be stunted and small in the following growing season.

The risk of winter drought stress is higher in perennials that were planted in the last 2-3 years, as they lack a robust root system and have fewer stored resources. Evergreen trees, like eastern redcedars, are also at a higher risk of winter drought compared to trees that lose their leaves, as dry winds will draw moisture from their needles, exacerbating their drought stress.

To prevent damage to your perennials, you may need to water during the winter, especially if you are not receiving any precipitation. Watering deeply and slowly will allow moisture to reach more of the root systems compared to a light sprinkle. A deep watering once a month should be sufficient for your plants during dry winter weather. If you are unsure whether or not your perennials need water, homeowners can use a metal or wooden rod to push into soil. Dry soil is harder to push into than moist. The father down the rod goes, the more moisture in your soil. If the ground is frozen, this test will not work.

For tree and shrubs planted within the last year, drill a small hole in a five gallon bucket near the bottom, then fill the bucket and let the water dribble out slowly next to the tree. Refill the bucket once so that you apply 10 gallons. Trees planted 2-3 years prior may require more water.

In terms of your older trees and shrubs, we recommend using a soaker hose. For large trees, place the soaker hose in a circle the trunk one-half the distance to the dripline, or the outermost reach of branches. On smaller trees, you may need to circle the tree several times so that only soil which as tree roots will be watered.

For newly established perennial garden bed or foundation plantings, you can hook the beginning and end of a soaker hose to a Y-adapter to equalize pressure, which encourages more uniform watering.

If you have a fall planted or overseeded lawn, an over head sprinkler will be most effective. Watering to a depth of 12 inches is more difficult with a sprinkler, but try to reach at least six inches deep.

Lastly, do not forget that mulching around your plants will help insulate their roots and retain soil moisture longer. If you have questions about keeping your plants hydrated during the winter, reach out to our office for more guidance.