

Drought and Heat Stress Continue to Affect Trees and Shrubs

KRISTA HARDING – HORTICULTURE AGENT

Rainfall across the Southwind Extension District has been scarce for several weeks. The U.S. Drought Monitor update released on September 3 now places much of our area in a D1 Moderate Drought classification. Unfortunately, long-range forecasts indicate that drought conditions may persist for the foreseeable future. The combination of prolonged heat and limited rainfall is creating challenging conditions for both people and plants.

One group feeling the effects most acutely is newly planted trees and shrubs. When a tree is transplanted, it typically experiences a period known as transplant shock. During this time, the plant is adjusting to its new environment and establishing roots. It is not uncommon for newly planted trees to lose a significant portion of their leaves during the first growing season. This year, however, the combination of drought and extreme heat has intensified that stress, resulting in more severe leaf drop and decline than usual.

While this can be alarming for homeowners, the good news is that many trees experiencing transplant shock will recover and produce new growth the following spring. Even so, newly planted trees and shrubs will require close attention as drought conditions continue.

Watering Recommendations for Newly Planted Trees

To help young trees survive periods of drought:

- Create a low berm around the planting area to help retain water over the root zone.
- Water deeply once each week, applying approximately 10 gallons of water per tree.
- For trees with a trunk diameter greater than 2 inches, apply an additional 10 gallons of water for each inch of trunk diameter.
- Continue monitoring trees into the fall and winter months. Supplemental watering may still be necessary if dry conditions persist.

Watering Recommendations for Shrubs

Shrubs generally require less water than trees due to their smaller size. Apply enough water to thoroughly moisten the entire root ball to a depth of about 8 inches. Under drought conditions, a deep watering once per week is usually sufficient.

Caring for Established Trees

Mature trees are more drought-tolerant than newly planted trees, but they can still suffer from extended dry periods. Focus on providing deep, thorough watering rather than frequent light applications. Water should penetrate at least 10 inches into the soil.

Drought and Heat Stress Continue to Affect Trees and Shrubs

KRISTA HARDING – HORTICULTURE AGENT

Be sure to water beyond the drip line of the tree, where most of the absorbing roots are located. Avoid concentrating water directly at the base of the trunk, as this area contains relatively few roots that take up moisture.

A simple way to check watering depth is by inserting a screwdriver or metal rod into the soil. The tool will move easily through moist soil and stop when it reaches dry ground, allowing you to determine whether enough water has been applied.

If you have concerns about the health of a tree or shrub on your property, please do not hesitate to contact me. I am happy to answer questions and can schedule a home visit if needed.

Krista Harding is a K-State Extension Horticulture agent assigned to the Southwind District. She may be reached at kharding@ksu.edu or 620-244-3826.

K-State Research and Extension is an equal opportunity provider and employer.