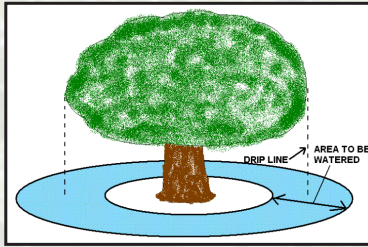


## MEASURED EFFORTS

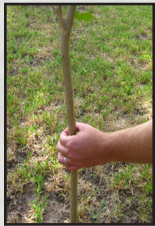
### Drip Line

Soak the ground within the drip line of the tree. The drip line is the edge of the area covered by the canopy of the tree, where rain water would naturally drip to the ground.



### What a Reach!

When determining how much water your tree needs, remember this rule of thumb:



If you can wrap your fingers around the trunk, then your tree needs about 10 gallons (or 10 minutes at a low flow) at least once, but preferably twice, a week.



If you can wrap your hands around it, your tree needs between 30 and 50 gallons (or about 30 and 50 minutes at a low flow) at least once a week.



If your tree is larger with a significant canopy, place the hose under the drip line and let it run at low flow for 45 to 60 minutes in that area before moving it to another section under the canopy. A complete watering of a mature tree may take several hours or more.



### Will additional watering increase your water bill?

Maybe a little but deep root watering generally conserves water usage by reducing water loss through evaporation and reducing water runoff.

It takes about the same amount of water

to flush a typical toilet once as it does to water a young tree for a week.

### Fire Danger

Trees that suffer from drought stress can become more vulnerable to disease, and can increase the potential for wildfire in wooded areas.

### Mulch `Em

A good mulch layer beneath your trees will help retain moisture and keep your trees healthier during the drought. Remove grass and weeds from beneath the tree canopy and replace with mulch. But be careful not to pile the mulch against the tree because it can encourage diseases and pest problems. Make the mulch layer 2 to 3 inches deep and apply water to the top of the mulch.

More information is available online

Texas Forest Service

<http://texasforests.tamu.edu/main/article.aspx?id=13768>



# Keeping Trees Alive During Drought Conditions

Practical, Affordable & Effective Ways to Help Thirsty Trees

Provided by the Houston Area Urban Forestry Council and the Houston-Galveston Area Council

# PROTECT YOUR TREES FROM DROUGHT DAMAGE

An unprecedented drought across Texas is withering young trees and saplings and is taking a toll on large, old trees. While many people notice the obvious effects of drought—crispy lawns and parched flower beds—trees often get overlooked until it's too late.

Early signs of drought damage include shriveled leaves, and leaves which turn brown along the edges or turn yellow. As damage worsens, leaves may curl or warp, become crinkly and scorched, and fall from the tree.

Once a tree begins to exhibit signs of drought stress, immediate action should be taken to provide water. Don't be fooled when your lawn greens up after a brief rain. While grass can quickly recover with a small amount of rain, trees require deeper watering and need extra care.



## Bucket Irrigation

A quick, affordable solution to deep watering is to make an irrigation bucket.



Use a nail or small punch to perforate the bottom of a bucket – just a couple holes, will do. Place the bucket near the base of the tree and fill with water. Once the bucket

has drained, you can move it to your next tree. Please note, this technique works best for younger, newly planted trees.

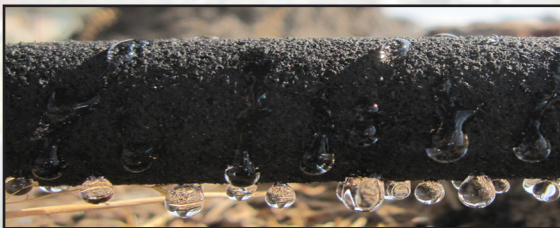


## WATERING METHODS

While no method can guarantee that a tree will survive, these watering methods will give your tree a fighting chance.

### Soaker Hose

Use a soaker hose or turn a garden hose on to little more than a trickle and let the water soak into the ground for about an hour. Then move the hose over a few feet. Continue this until all of the soil area under the canopy of the tree has been soaked. This can take up to a day for a large tree.



### Treegrator

A Treegrator is a portable drip irrigation system. This easy-to-use watering bag will slowly deliver water to a tree's root system, allowing for deep saturation and little to no run-off or evaporation. Installation is a breeze. Just zip it up around the trunk and fill it with water. The Treegrator system is particularly effective for newly-planted trees.



Trees should be watered at least once per week, preferably twice during the spring and summer if there is insufficient rainfall. Water early in the morning or late in the evening.

### Ooze Tube

Similar to a Treegrator or a soaker hose, an Ooze Tube is designed to slowly irrigate trees, beds and gardens at a minimal cost.

Wrap the Ooze Tube loosely around the tree and secure with a wooden stake. Fill the tube with water and tap a starter hole in the bottom of the tube with a nail. Insert a drip emitter into the hole.

(The Ooze Tube comes with the stake, four drip emitters and the nail for creating the starter hole.)

