



Supplemental Watering of Trees During Periods of Drought

A lack of available water to trees' roots can cause drought-stress, making a tree more susceptible to death, disease and insect attack. Trees growing in an urban environment face additional stressors:

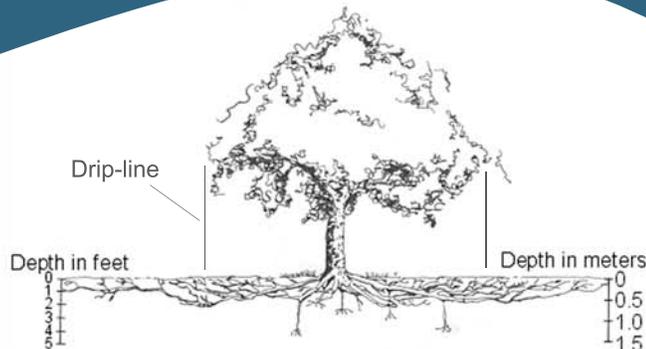
- ◆ Soil Compaction
- ◆ Competition from turf grass
- ◆ Pollution

Even adapted native trees, such as live oaks, cedar elms, and pecans, can succumb to drought-stress.

Supplemental water, provided as little as once every two weeks, can keep a tree healthy during dry spells.

Shallow, frequent waterings, such as those provided by lawn sprinklers, do not reach tree roots. Long-duration, deep waterings are best. Consider using a soaker hose.

Use the table below to determine water quantity.



Contrary to common belief, most of a tree's water-absorbing roots are within the first few inches of soil and extend 1.5 to 4 times wider than the width of the tree's canopy. Roots do not mirror the above-ground portion of a tree. Supplemental waterings should cover as much of the root area as possible. As a general guide-line, water the entire area below a tree's canopy, also called the drip-line of a tree. This area may extend several dozen feet away from the trunk for larger trees. Avoid repeatedly wetting the trunks of trees or keeping tree trunks wet for prolonged periods.

Mulching trees is one of the best ways to keep trees healthy and drought-resistant.

The benefits include:

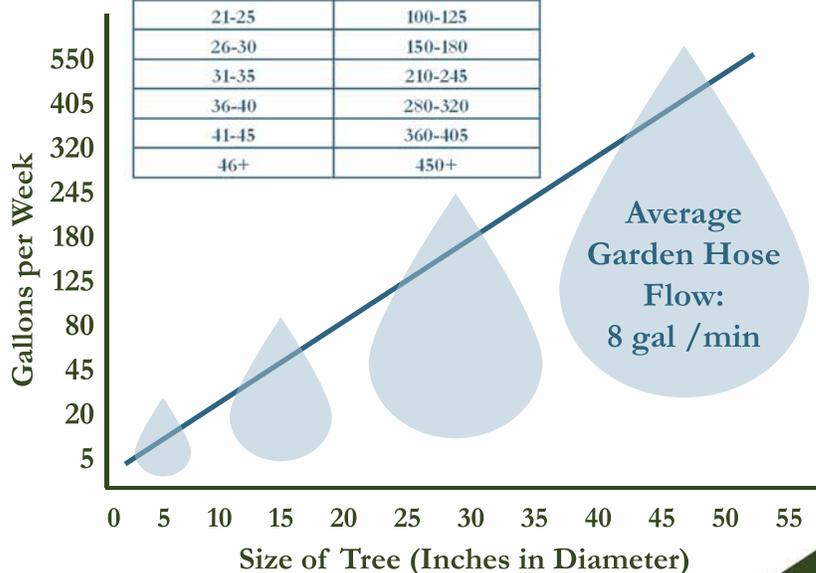
- ◆ Improved water percolation into soil
- ◆ Decreased water evaporation
- ◆ Soil temperature moderation
- ◆ Reduced competition with turf

Add a 3 inch layer of organic mulch to the entire root area of a tree. Do not place mulch against the trunk.

Source data: Center for Urban Forest Research

Size of Tree	Water Needs
Diameter (inches)	Gallons per week
0-5	1-5
6-10	10-20
11-15	30-45
16-20	60-80
21-25	100-125
26-30	150-180
31-35	210-245
36-40	280-320
41-45	360-405
46+	450+

How Much Water?



To determine the # of minutes to water with a hose, divide the # of gallons by 8. Distribute water slowly and evenly throughout the root zone. Add 5 minutes if the root zone is covered by turf grass



For more information about tree care or other information about Austin's Urban Forest, visit www.ci.austin.tx.us/parks/forestry.htm