

University of Florida

Landscape Plants

[Home](#) > [Health and maintenance](#) > [Improve health](#) > [Irrigate](#) > Tree care and drought

Tree care and drought

Extended droughts can cause decline and death on young and mature trees. Even large trees more than one hundred years old can decline.

Foliage on drought stressed trees thins and drops beginning at the top center part of the canopy. This can be largely prevented with timely application of irrigation, and appropriate soil management. It is better to apply water preventively before the canopy begins losing foliage than to wait until these symptoms are advanced. **Many newly planted and mature trees in the southeastern US including Florida periodically decline or die from extended drought.** Newly planted and mature trees alike can benefit from irrigation in dry weather.

Young trees: Check trees planted in the last 24 months for signs of leaf drop, yellow foliage, brown foliage, wilted leaves, or dead branches at the top of the canopy. These are signs of dry roots. First, remove all mulch from on top of the root ball; mulch can **prevent water penetration** into the root system. Apply about 5 gallons of water per inch of trunk diameter to the top of the root ball and surrounding soil. Apply it slow enough so none runs off. Two irrigations per week will keep most trees alive; more frequent irrigation would be even better for trees planted in the last several months.

Mature trees: We often take our large trees for granted and forget that they can decline in health during extended drought. Most people do not realize the tree is in trouble because symptoms appear first in the top center portion of the canopy far from view. **Add water to wet the top 12 inches of soil every 2 to 4 weeks in extended drought. Apply water to all soil under the canopy if possible. This may take several hours or more depending on what type of application devices are available to you.** If you have limited time to devote to your trees, we think it is better to completely wet a small area than to only wet the surface few inches over a large area. Limit pedestrian, mower, and vehicle traffic under the tree. **Be sure your program complies with local water restrictions.**

What not to do: 1) **Pruning live branches** in a severe drought is not recommended because this removes live tissues forcing the tree to expend energy to defend against the pruning cuts. Removing live foliage also reduces the capacity of the tree to grow once rains return. 2) **Do not fertilize** trees in extended drought since this pulls water from the roots and forces the tree to expend precious energy to process the fertilizer. 3) **Mulch applied under the canopy** of mature trees in drought could intercept rain which may not reach roots if rain falls in small amounts. 4) **Do not dig under the canopy** of the tree in drought because this will reduce the capacity of the tree to uptake water.



Southern magnolia dropping leaves because it is under severe drought stress.