



earth-wise guide to

Tree Care



Urban trees need our help. Evolving Central Texas weather has included exceptional drought, record high and low temperatures, and sudden flooding. According to the State Climatologist, the current drought conditions are expected to continue for several more years and if continued indefinitely will become our new “normal”. To prepare for these expected changes we need to evaluate the health of existing trees, care for them, and make informed decisions to replenish our urban forest.

How do I tell if my bare, leafless tree is still alive?

Scratch test: Use your fingernail to scratch the bark on a twig or branch.* If green or yellow color is seen then that means live tissue is present. If you are still not sure, either call a certified arborist or wait until April or May to see if new leaves emerge.

*Avoid the scratch test on oak wilt susceptible oaks from February through June.

Call a certified arborist.

Look for an arborist who is certified by the International Society of Arboriculture (ISA) and ask about their education, experience, references and proof of insurance, as you would of any contractor or service professional.

Steps:

1. **Evaluate** the condition of your existing trees
2. **Nurture** existing trees
3. **Renew** with the right plants in the right place

Evaluation Assistance

For more information about tree assessment, visit:

www.treesaregood.com/treecare/treecareinfo.aspx

1 Evaluate

Assess the current condition of your trees to help you prioritize time and resources.

Trees in urban settings are exposed to a wide variety of environmental and cultural stresses which impact their health. Healthy trees are equipped to handle stress, but when exposed to prolonged stress they reach a point of non-recovery.

Look for these signs of stress to help determine if your trees need some extra care:

- Leaves that are scorched, wilting, unusual colors, prematurely shedding or turning brown without falling
- Twigs and branches that are dying might indicate root problems and overall tree decline
- Cut or damaged roots
- Mushrooms around the base of tree
- Signs of internal decay on large trees or limbs should be inspected by a certified arborist for risk; these signs include: cavity openings, nesting holes, mushrooms, carpenter ants, termites and missing wood

2 Nurture

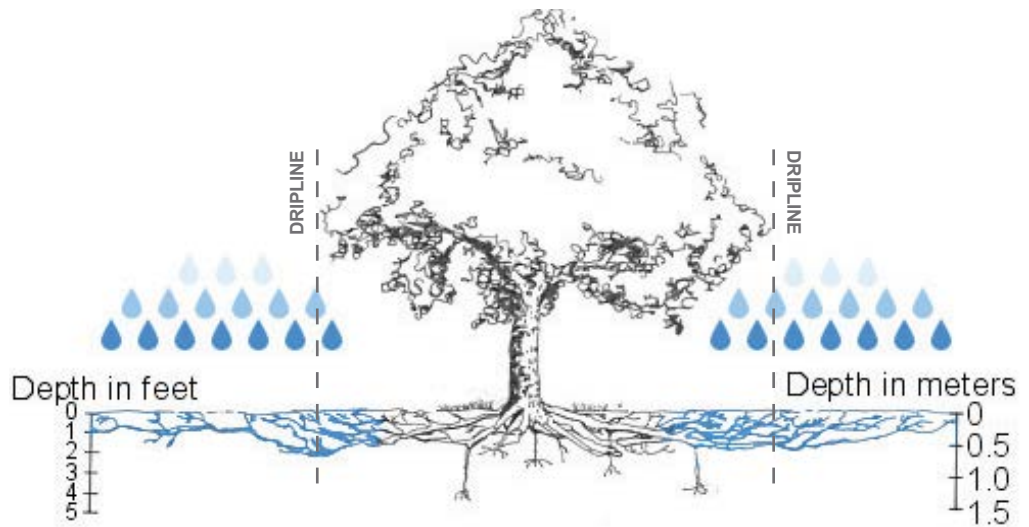
Take care of stressed trees.

Trees provide value to your landscape, and it is costly to remove a dead tree.

The total effects of severe environmental stress may not be seen for years, so preservation under extreme conditions is important.

Basic Care

- Water wisely
- Compost to enrich the soil, but do not fertilize during periods of stress
- Properly mulch the root zone
- Expand mulched area as far out to dripline as possible, but do not place mulch against trunk
- Limit pruning to broken and/or dead branches that might be a safety hazard and follow Oak Wilt prevention pruning guidelines texasoakwilt.org
- Avoid using weed and feed products, they can damage trees



For stressed trees, provide supplemental water to the outer area of a tree's root zone, where there are the highest concentrations of water-adsorbing roots are located

Water Wisely

How often & where to water:

Check Austin Water's website for current watering restrictions to avoid potential fines at WaterWiseAustin.org

- Established but distressed trees:
 - In dry periods during the growing season, water at least once every two weeks; in winter, water once a month if no significant rainfall.
 - At a minimum, trees should be watered to the dripline
 - Large, mature trees should be watered in the root zone shown in the diagram; many of the very fine water-absorbing roots extend beyond the dripline

How much:

- Trees generally need 5-10 gallons of water per inch of diameter. Use the lower end for healthy trees, the higher end for stressed trees and those with roots covered in turf or groundcover
- If water is standing or running off you are watering too much or too quickly. Use mulch or small berms on slopes, heavy soils (clays), and compacted soils to assure water soaks in and does not run off onto paved surfaces
- The day after watering use a trowel or screwdriver to check soil moisture depth; if the soil is moist 4-5 inches deep, you watered enough

How long:

- Water slowly and deeply to ensure that water percolates well below the soil surface to the tree roots

- Accomplish slower water application rates by hand-watering, using a doughnut-shaped sprinkler, spray nozzle or a soaker hose. You can also fill 5-gallon buckets or water bottles with a few 1/4 inch holes drilled in the bottom and place over the roots of the tree near the dripline.
- Check out a digital hose meter from The Austin Public Library or time the filling of a 5 gallon bucket to learn how long to water. For hose meter availability, search for "hose meter" in APL catalog at library.austintexas.gov
- Add a few minutes of watering if the tree roots are covered in turfgrass or groundcover
- Use a timer or establish a personal reminder (i.e. tie a string around your finger) so you do not forget that you are watering your tree



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+

Compost and Mulch

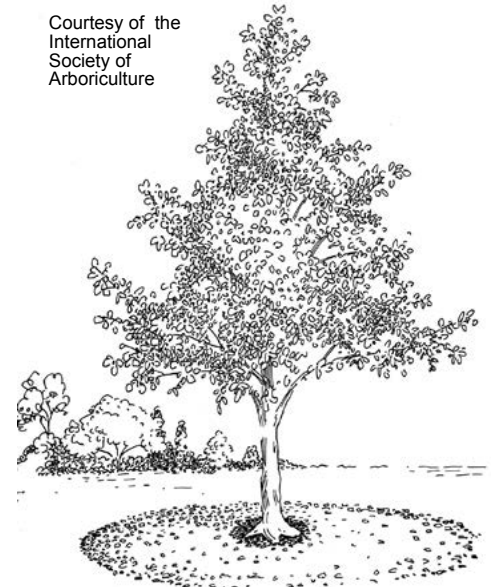
Besides proper watering, the best thing you can do for your trees is to apply mulch over their root systems

- How to apply compost
 - Apply in the spring and/or the fall
 - Apply ½ inch to the edge of the tree canopy
 - Keep compost 4-5 inches away from the base of the tree
 - Apply compost before applying mulch
- How to apply hardwood mulch:
 - Apply mulch as needed to maintain 3-4 inches deep

- Keep mulch 4-5 inches away from the base of the tree
- Benefits:
 - Insulates the soil and roots from extreme temperatures
 - Slows soil moisture evaporation, which extends the amount of time between watering
 - Mimics the forest floor. The decomposition of the organic matter in the mulch (in addition to any existing compost) will release nutrients that become available to be absorbed by the roots
 - Reduces weed and grass competition. Turf conflicts with the presence of trees because they compete for the same resources

- Provides a buffer between the turf and tree to help protect the trunk and surface roots from mower and equipment damage. Wounds at the base of the trees cause lifelong problems

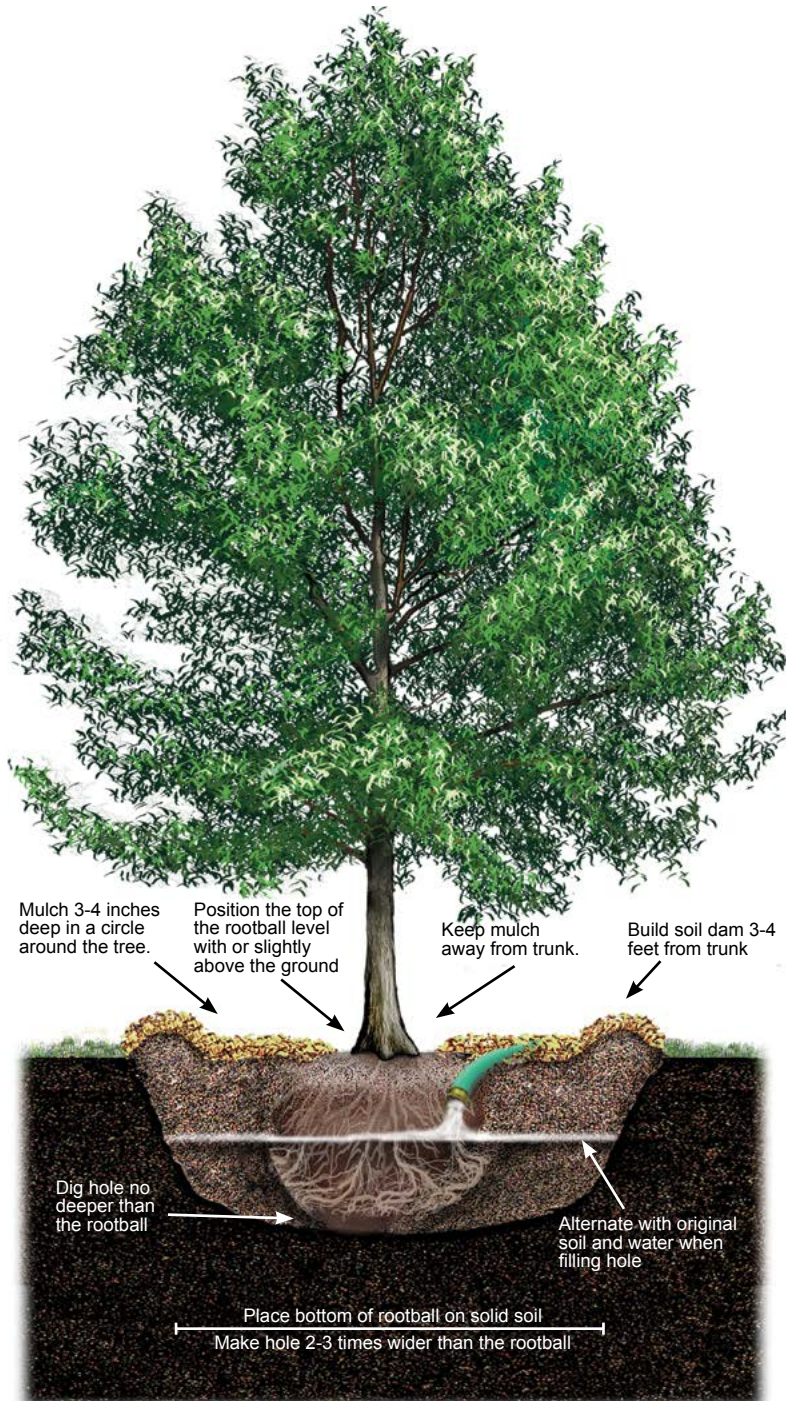
Courtesy of the International Society of Arboriculture



Proper mulch application



Incorrect mulch application



FAQ

- What is the difference between how mulch and compost are applied?
 - Mulch = organic materials applied on top of the soil (do not mix mulch into the soil, the decomposition process uses up nutrients and prevents them from being available to the plants)
 - Compost = well-decomposed plant material used to mix into the soil and sometimes recommended to use as mulch

3 *Renew*

Planting trees is an optimistic and sustainable

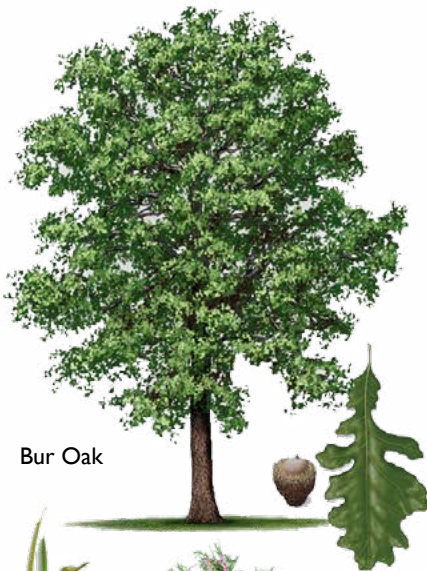
investment that demonstrates commitment to our future.

- If you plant make a commitment. Determine available time and money to care for your tree once it is planted. Trees are an investment that will yield higher quality benefits when planted properly
- Watering new trees:
 - Water thoroughly once per week.
 - Trees that have been in the ground less than two years have underdeveloped root systems, so concentrate water near the planting area out to the dripline

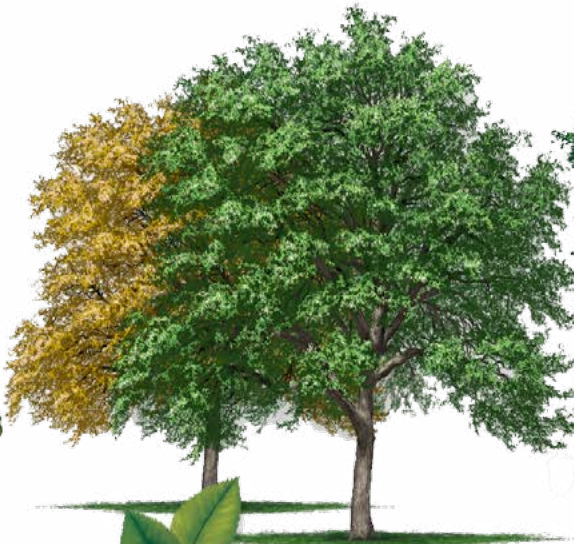
- **Small Trees = Small Needs**
Saplings and small trees need less water during establishment and adapt quickly to new conditions
- Match to location – right tree right place
 - Consider soil type, slope, existing access to water, shade, landscape function and does the space allow for mature tree height and width
 - A properly sited tree will be healthier and require less water
- Plant a diverse palette of native tree species
- Plant trees at the proper depth, no deeper than the depth of soil in the rootball
- Planting Season: October – March
- Mulch
 - 3-4 inches deep
 - Keep mulch 4-5 inches away from base of trunk



Drought Tolerant Species Include:



Bur Oak



Cedar Elm



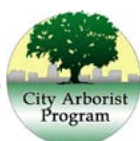
Lacey Oak



Desert Willow



Texas Persimmon



For more earth-wise tips, visit
www.growgreen.org or
www.austinurbanforestry.org

For water conserving tips and rebates, visit
www.waterwiseaustin.org