

Preparing Trees for Summer

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Trees are one of our most valuable assets. They provide shade, energy savings, wildlife habitat, aesthetic beauty and increased property value to our homes, businesses and communities. For this reason, it is important to protect them. Here are some tips for preparing your trees for the stresses of an Arizona summer.

Selection and Planting

- 🍃 Start by buying good quality plant stock, preferably trees with low growth along the main trunk. These trees are less susceptible to sunburn. They are also more stable due to better trunk taper. They may not even need staking or guying. Avoid purchasing lollipop trees.
- 🍃 Consider purchasing native or desert-adapted trees when possible. They often have a lower profile in the landscape and are less susceptible to wind damage. They are also better adapted to our local soil conditions, natural pests and pathogens and other stresses common to the low desert.
- 🍃 Plant trees in groups when possible. They buffer the sun and wind from their neighbor trees.
- 🍃 Minimize pruning after planting. New trees need as much foliage as possible to create energy reserves for healthy growth.
- 🍃 Avoid removing watersprouts. These are the small shoots growing along the lower trunk and main branches. Watersprouts help their parent branches develop taper needed to support increasing end weight as trees mature. They also shade interior branches and prevent sunburn.

Staking and Guying

- 🍃 After planting, only stake or guy trees if necessary. The goal is to train trees to be on their own, not to prevent them from moving. A staking system should serve only as a failsafe.
- 🍃 If trees need to be staked, suspend them between the stakes firmly enough to prevent falling over but loose enough to allow the main stems to move slightly in the wind.
- 🍃 Use a soft material such as nylon webbing to tie trees to stakes.
- 🍃 Always remove the stakes tied directly to the main stem or trunk. These “travel” stakes are only intended to get the trees to their final destination.
- 🍃 Monitor staking systems regularly. Remove stakes as soon as possible, preferably within the first year.

Irrigation

- 🍃 Water trees deeply. Be sure the entire root zone is saturated each time you irrigate. Ideally you should only water again after the entire root zone dries out.
- 🍃 Watch your trees for signs of afternoon water stress as a guide to irrigation frequency. You can also use a soil probe to determine saturation depth.

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- Remember water stored deeper in the soil is often available to desert trees for several weeks after the surface soil has dried.

Wind Dynamics

- Wind acts upon trees in unique ways, depending on the distribution of foliage along individual branches. Where foliage is heaviest, wind forces are concentrated. Proper pruning reduces the risk of storm damage by reducing wind resistance on the tree crown.
- Contrary to popular opinion, heavily thinning out interior branches does not always make trees safer. The wind blows through the lower branches but the force of the wind now collects disproportionately in the outer tree crown, often leading to branch breakage.

Pruning For End-Weight Reduction

- Trees need leaves to photosynthesize so be careful not to over-prune. Robbing trees of their energy-producing foliage can threaten their overall health. The ANSI A300 Standards recommend no more than 25% of foliage be removed in any one growing season.
- The best pruning strategy is to thin and reduce foliage evenly throughout the entire tree including the outer third of the crown.
- A common mistake is to thin out an excessive number of low and interior branches. This pruning method is called Lion's Tailing. It is an unacceptable pruning practice. Because lion's-tailed branches collect the full force of the wind at the ends of the branches, they are more vulnerable to storm damage. Lion's Tailing also creates other long-term problems such as sunburn and reduced branch taper.

Sun, Rain and Hail

- Dry weather and intense heat can cause severe tree damage. Smooth-barked trees like citrus are susceptible to sunburn and may need protection, especially on the south and west sides of the trees.
- When sunburn occurs, cambium below the bark is permanently damaged, restricting the flow of water and nutrients upward and the movement of sugars and starches downward. Use shade cloth or a tree wrap product to protect exposed areas.
- Soaking rains prior to wind events are particularly dangerous. Instead of branches breaking, entire trees can fail when their root plates lift up from the moistened soil. Turn off watering systems during rainy periods to prevent excessive water load in already saturated landscapes.

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- 🍃 Hail is another potentially damaging element during summer storms. Leaves, twigs, branches and trunks are vulnerable to mechanical injury from large hail stones. Young and tender trees should be covered before monsoon storms to protect them from damage to cambial tissue.

Cabling, Bracing and Propping Systems

- 🍃 Cables, braces and props are man-made devices designed to provide mechanical support to branches and trunks to help trees remain standing or to control movement within certain limits. Many large, mature trees with structural problems can benefit from cabling, bracing and propping to preserve their beauty, prolong their life and reduce the risk of tree or branch failure.
- 🍃 Cabling, bracing and propping systems are helpful when other methods of hazard mitigation such as pruning are insufficient alone to reduce the risk of failure to an acceptable level.
- 🍃 Sometimes trees should be removed if they are too hazardous to mechanically support.

We can't prevent excessive heat and storms but with planning and smart tree care practices, we can minimize their damage and give our trees the best chance to stay strong and safe through the next Arizona summer.