

Monsoons and Tree Damage

The Arizona monsoon is a well-defined meteorological singularity that can cause sudden and oft times violent thunderstorms to boom across the valleys and crags of the Arizona landscape. During a wet cycle it can bring as much as a third of our annual rainfall. While July 7th is the average date of the commencement of the monsoon season, the actual date varies from year to year.

For the monsoon of the desert southwest to have officially begun, the dew point must be 55 degrees or greater for at least three consecutive days. This means moisture from the Gulf is pushing into our area and, when coupled with daytime highs hitting the triple digits, you have one powerful engine to drive this most interesting of weather events.

While rain is always welcome in the desert, the high winds and dust storms that invariably precede the storm can be quite destructive. There is a name for the wall of dust formed as the storm's downdraft pushes out ahead of the actual storm. Called "haboobs" from the Arabic word "habb," meaning "wind," these gust fronts pick up huge quantities of dust and sand. Sometimes soaring over 3,000 feet and traveling over 30 miles per hour, these walls are quite striking and often are the first inkling a storm is about to hit.

Another feature of monsoon activity is the "gustnado." Sometimes mistaken as a fire from a distance, a gustnado develops on the leading edge of a thunder cell, much like a haboob. Gustnados combine characteristics of dust devils and tornadoes, with their tornado-like vortices. They are often limited in duration but, nonetheless, can cause their fair share of damage.

So what does this mean to the average Arizona resident? Monsoons often translate into tree damage. The Chilean Mesquite tree seems to take the hardest hit. Their most attractive feature, rapid growth, can cause the canopy to outgrow the root system and we all know any one of us could be blown away in the winds of adversity. The savvy gardener knows to move the drip emitters out away from the trunk of the tree to the drip line, forcing the tree to extend its root system. During the monsoon season it is also important to check the staking of young trees. Make sure the tree has room to sway in the wind, as this movement is crucial to strengthen the trunk to stand up to Mother Nature's vagrancies.

Finally, make sure your trees are pruned for shape and balance to prevent wind damage. Examine the angle attachments of large branches. The "V" union is weaker than an "L" and will often split off sooner. Careful attention to our landscape trees will provide less anxiety about their well-being and more time to enjoy the magnificence of our majestic monsoons.