



VINTAGE LANDSCAPE

PROFESSIONAL LANDSCAPE SERVICES

As one travels around the desert one can't help but notice the large number of dead or stressed plants. When temperatures exceed 115 degrees, which occurred over five days in June, even plants that normally tolerate desert conditions can experience damage. At these temperatures there are many factors that can determine whether or not damage to plants may occur. These factors include; plant maturity, establishment, proximity to roads, walls, hardscapes, time or amount of irrigation, recent pruning, etc. At high temperatures little things can make a big difference. It is often an accumulated effect of many of these things and not any one factor that ultimately causes decline.

When evaluating the reason plants have died or are suffering there is a simple answer and a more complicated answer. The simple answer is lack of sufficient water. The more complicated answer attempts to explain all of the various factors that when combined with the reduction of water leads to plant decline or death. These factors include; plants that are marginal for desert landscape conditions, inadequate irrigation design, turf conversions, and extreme heat. Typically when marginal plant material dies suddenly it is due to exceeding a threshold. An example of exceeding a threshold is, when a plant's water consumption exceeds the rate at which the plant can absorb water through the roots. Extreme events such as 120 degree temperatures in June are the "straw that broke the camel's back".

Because of drought restrictions and price increases, the amount of water applied to Coachella Valley landscapes has been reduced and in some cases drastically. This has had an adverse effect to much of the plant material used in these landscapes. The summer of 2016 is the second summer that plants have had to exist with lower irrigation levels.

Below is a partial list of marginal plants that historically have been damaged or killed during summer months prior to restricted or decreased irrigation. Any cultural practice that increases stress on these plants can drastically affect their survivability. These plants are most affected by extreme events:

Trees

African sumac
California pepper

Ash
Carob

Brazilian Pepper

Shrubs

Pittosporum sp.
Carolina cherry
Texas privet

Nandina
Japanese Blueberry
Roses

Japanese boxwood
Hibiscus
Raphioliopsis

In general Coachella Valley irrigation systems were not designed for water efficiency or conservation. Water use was a low priority in most landscapes. Now that water allocation has been reduced to marginal amounts these irrigation systems are no longer adequate to sustain some plant material. Deficiencies are magnified as water is reduced. Plant decline will continue as landscapes adjust to lower water levels.

Removing turf is one of the best ways to reduce water consumption in the landscape. Where there are existing trees or shrubs adequate water must be maintained in the existing root zones of these trees or shrubs or they will decline and eventually die. Trees will require adequate distribution of water throughout the drip zone or there will be a high probability of failure.