

Queen Palms 2019

In the 1980's thousands of queen palms were planted throughout the Coachella Valley. They were chosen for the feathery flowing form that contrasts with the stiff form of the date palms or any of the fan palms. At that time, the queen palms seemed to tolerate the extreme desert conditions. Thousands more were planted. After about 10 years a significant number of the older, larger palms began to decline.

We began to research the possible causes for this queen palm decline and numerous palm "experts" were consulted. The general collective conclusion was that it was a lack of manganese and other micronutrients. We began to apply these micro nutrients in various forms and treatments. Fertilizer stakes, granular and liquid applications were applied to the root area of the tree. Some trees were treated with foliar applications to the crown. In general, there was limited, or no improvement seen in these older palms. Any reduction in decline was short lived and within a few months the palms continued to decline with most of the decline during the summer and winter months. In general, the fronds displaying frizzle top or the collapse of the central fronds continued regardless of amount of nutrients applied.

We began to investigate irrigation as a contributing factor to queen palm decline. Various methods and amounts irrigation were tried on declining palms. Improvements were found with some palms that had inadequate irrigation, however as time went on even those palms with adequate irrigation continued to decline. The practice of installing deep water tubes (access tubes) for irrigating palms, though a common practice, is recognized by most knowledgeable arborists as an erroneous method of watering trees or palms. The late Henry Donselman, considered one of the leading palm experts in the USA, believed that the use of watering tubes was inadequate and adversely impacted the distribution of water to the absorbing roots of the palm. Any existing tubes in the landscape and their condition is irrelevant to the condition of any mature declining queen palms. The queen palms in the landscape have roots that extend throughout the beds and turf areas in which they are planted. Most roots are in the top 2 feet of soil. They receive water and nutrients from this entire area.

We also investigated the possibility of fungus problems or other pathogens as a contributing factor. We have not found any significant number of palms in which insects or disease was a factor.

In 2011 an individual assessment was done by Vintage on all the 1434 queen palms in the Fairways areas we maintained. 1380 of these trees were considered possibly salvageable. They were treated with a mixture of nutrients and biostimulents by soil injection. The cost for this was \$22.50 per palm for a total of \$31,050.00. The treatment had little or no effect on most of the palms. They continued to decline. It was determined that continuing these treatments would not be effective and that the money would be better spent removing these palms as they inevitably declined.

We have had clients that were willing to pay \$200.00 - \$300.00 per palm for multiple applications. In all cases the palms eventually continued to decline. We have treated thousands of palms over the years with various treatments and the result was always the same, continuing decline. I do not know of any older queen palms in the Coachella Valley that are thriving.

Queen palm decline has been a problem for over 20 years. Tens of thousands of queen palms were planted and almost every HOA and City is affected by the poor longevity of these palms. Lots of work has been done to save them. The consensus among palm experts is that queen palms grown in the Coachella have a life expectancy of 15 -20 years. Anything that is longer than that is an exception. This is because queen palms come from the rain forests of Brazil and are unable to cope with the extreme dry heat and cold winters that exist in this area. Younger palms do better, but as they mature, they are unable to cope with the accumulated long-term stress of this environment. There may be exceptions or micro climates but generally they are not suited for this climate.

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