Plant Health Care Recommendations for Queen Palm

Queen palm (Syagrus romanzoffianum) is widely planted in Arizona landscapes where a lush, tropical effect is desired. This tree is widely used as a specimen planting or can be massed together in groups. Queen palm can grow to a height of more than 40 feet producing light-green, feathery fronds that are up to 15 feet long. The stem is very attractive with its smooth, grey bark and prominent rings.

A native of South America, queen palm thrives in moist soils. In desert climates, regular irrigation is essential. This species should be planted in protected locations to avoid foliage desiccation that can occur on hot exposed sites. Queen palm responds well to regular applications of nitrogen fertilizers. On alkaline soils, micronutrient deficiencies, especially iron and manganese may occur. Soil analysis to assess nutrient levels and pH is helpful in assessing fertilization requirements. Pruning should remove only dead fronds. Removing live fronds can weaken the plant and lead to sunscald and disease.

Figure 1. Queen palms showing symptoms of decline. Tree in foreground exhibits sparse crown; tree in background exhibits crown wilting.

In Arizona, queen palm is affected by a decline of uncertain origin. Affected trees exhibit poor growth, sparse stunted foliage and, ultimately, wilting and death of the crown. Environmental factors such as high temperatures, drying winds, insufficient soil moisture, saline soils and nutrient deficiencies may be contributing factors to the decline. Recently, root knot nematodes have been implicated as a possible decline of queen palm. Nematodes are microscopic worm-like organisms that feed on root tissue creating swollen galls. Root damage reduces water and nutrient absorption resulting in a slow decline in plant health.

Other pests of queen palm include spider mites that cause foliage browning especially in summer. The fungus Ganoderma can infest the lower stem and root system and cause failure of the plant. Ganoderma infests the stem tissue through wounds including those caused by climbing spikes that are worn by workers when pruning palms. Climbing spurs should never be worn when maintaining any tree: they are only appropriate for tree removals. Avoid damage to the lower trunk when using mowers and string trimmers near palm. Phytophthora bud rot has been reported on queen palm, but this disease is rare in dry climates such as Arizona.

Recommended Monitoring and Treatment Considerations for Queen Palm in Arizona

Timing	Treatment
Winter	Prune to remove dead fronds. Sample soil for nutrient and pH and soil nematode levels as needed.
Spring	Fertilize with a high nitrogen slow release fertilizer. Treat with iron and manganese based on soil test results and the presence of deficiency symptoms. Monitor irrigation to ensure adequate soil moisture. Additional irrigation may be necessary if nematodes are present.
Summer	Monitor and treat for spider mites as needed. Monitor soil moisture and adjust irrigation as needed.
Fall	Re-treat with a high-nitrogen slow release fertilizer.