

Maintaining Palm Trees



From the dazzling glitz of the Las Vegas strip to the sandy beaches of Hawaii to the laid back California coast to the sizzling Arizona desert, palms are an iconic symbol of the West. Limited only by freezing temperatures (and there are a few species that tolerate some freezing), these monocots are derided by some arborists as not being "real" trees. However, it is inevitable that most arborists in the West will be responsible for palm tree maintenance or maintenance recommendations at some point in their careers.

Properly planted in a hospitable site, palms are a favorite because of the low maintenance required to not only survive but perform well. **However, for optimum performance and aesthetics, palms need some regular attention.** There are several aspects involving palm maintenance that an arborist should be aware of: irrigation, fertilization, pruning and pest and disease control. There are no absolutes regarding any of them; each aspect will require a different approach and largely depends on the type of palm being maintained.

PROPER IRRIGATION

Palm irrigation is often misunderstood. Many palms survive with minimal irrigation. For example, one or two drip emitters are installed at planting time and left throughout the lifetime of the plant. This is certainly not adequate for the sustained growth of specimen palms, but often they scavenge water from other places in the landscape such as turfgrass or emitters for other landscape plants.

Keep in mind that roots can only grow in the presence of adequate soil water. **As the palm grows, additional irrigation should be provided.** Some palms are actually an oasis plant (rather than a desert plant); regular, thorough irrigation is required for optimum health. The larger the palm, the more water it will require. During the heat of the summer, a large palm can require 20 gallons of water two or three times a week. In the winter, the irrigation frequency can be dialed back to once every 10 days to two weeks, depending on the amount of rainfall.

On the other hand, **if soil drainage is poor, it can be easy to overwater palms.** Palms are sometimes planted in pure sand or in highly amended soils; in hard soils with no drainage, this is the equivalent of planting in a container.

Since irrigation scheduling is dependent on factors such as soil texture, exposure, temperatures and more, **the best way to schedule irrigations is to use a soil probe to determine soil moisture.** Note how long it takes for the soil to become somewhat dry before irrigating again. However, do not allow the soil to become completely dry and rock-hard. This will damage or kill roots.

A three- to four-inch layer of organic mulch placed around the trunk of the palm will prevent evaporation and increase water efficiency. It is recommended that turf, groundcovers and other plants be removed to about two feet away from the base of a palm's trunk.

For the oasis effect, palms are often planted in or near lawns. Since most lawns are irrigated with sprinklers, palms often are regularly sprayed with water on their trunks. **There are few, if any, trees that tolerate constant moisture on their trunk tissue.** Although palms do not have bark such as dicotyledonous trees, constantly spraying the trunk with water can lead to decay.

FERTILIZATION AND PRUNING

While palms often can survive without fertilizer, they are sensitive to deficiencies and regular fertilization can prevent symptoms before they start. Most fertilizer manufacturers offer a special blend for palms, which contain extra potassium and magnesium, as well as nitrogen. Follow label directions and apply when the tree is actively growing or beginning a growth cycle – usually early to late spring.

Beware of applying too much fertilizer too often. This can lead to salt build-up in the soil, especially if drainage is marginal and irrigation is spotty.

Palms will thrive with no pruning at all. Pruning palms consists of flower, leaf, or entire stem removal. Most palm "pruning" is leaf removal.

Palms are pruned in order to co-exist with urban sites. Pruning reduces or eliminates the chance of fronds or fruit dropping in an untimely fashion. Pruning green foliage reduces photosynthetic potential of palms and can create wounds through which pathogens can enter. Ideally, only dead or dying leaves and fruit clusters should be removed.



What's wrong with this picture? Practically everything! The palms are too large for the space, the chain-sawed "pineapples" are a gateway to infections and the ties are unnecessary. Photos: Helen M. Stone

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Better yet, never remove any green leaves. Palms can be safely pruned up to the 3 to 9 o'clock position if necessary, but removal of all the expanded leaves or "pencil pointing" a palm should be avoided.

Although skinned trunks and "pineapples" on Phoenix canariensis (Phoenix date palms) are thought to look tidy and elegant, it is actually detrimental to the palms health and can become a gateway to pests and diseases. Keep in mind that pruning is wounding and these practices actually produce large wounds. Clients and the general public should be educated about the harm that skinning and ball shaping can do. Because of the prevalence of palm wilt disease in California, chainsaws should be avoided when pruning these palms because they can move and transmit disease propagules.

Tall palms can be a challenge to prune; the height and lack of branches are justification for use of gaffs or tree climbing spikes. **While these tools are widely and legitimately used for take downs, they create deep wounds on healthy trees that can introduce disease.**

Aerial lifts provide enough height to prune most palm trees. If there is a need to climb trees to conduct pruning, a static line climbing system has been shown to be a fast and efficient way to enter and work in the tree. Better yet, use equipment such as climbing platforms (link below).

MOST DISEASES ARE PREVENTABLE

If palms are selected, planted and maintained properly, pests and diseases should not be an issue. However, there are a few relatively common diseases to be aware of.

Sudden Crown Drop is thought to be caused by Thielaviopsis. The interior of the palm decays with no visible symptoms for long periods of time. **As the disease progresses, the palm stem becomes weaker and weaker and eventually the heavy crown falls without warning.** If Thielaviopsis is suspected, using a wood mallet to pound the tree and listen for decay and probing with a sharp spike can detect it. However, there is no cure. Only fresh trunk wounds will become infected by the fungus; wounding the palm trunk, especially the upper third, should be avoided.

Fusarium wilt has been devastating Canary Island Date Palms for several years. This fatal disease first affects leaves in the lower part of the crown and then moves up through the entire canopy. Leaves are often dying or dead on one side and green on the other. Although there is no cure, it is preventable. Pruning tools should be sterilized between trees by soaking in a 10% household bleach solution or holding the saw blade in a blow torch, flaming each side for at least 20 seconds. Always use hand or short pole saws, since chain saws are impossible to sterilize.

Diamond scale occurs on California fan palm (*Washingtonia filifera*) and is characterized by diamond-shaped fruiting bodies on the palm fronds about the size of a rice grain or larger. It is most common in coastal regions.

Pink rot is an infection that can be found on palms that have all the diseases listed above. It is an opportunistic disease that takes advantage of a weakened or wounded plant. **However, once it has a foothold, it be the cause of a palm's death.** Although there are fungicides that can diminish its presence, as long as the primary disease remains, the tree is at risk. Pink rot has a cool temperature optimum and is not a problem during warm weather. King palms that have had old leaves torn from the stem are especially susceptible to pink rot infections.

Since palms are so easily moved as specimens, many of them are transplanted as large trees. While the industry standard has been to tie palm leaves up with string until they resume growth, there is no advantage to the practice unless they are being planted in the hottest deserts.

Irrigate properly, fertilize occasionally and avoid pruning unnecessarily and a palm tree will reward you with a long life and with minimal maintenance. 🌴

Further Reading/Links

Video: Spikeless Palm Climbing Platform

<http://www.youtube.com/watch?v=W1AvcA1F7uM>

Palm Diseases in the Landscape

<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74148.html#FUSARIUM>

Arizona Landscape Palms

<http://ag.arizona.edu/pubs/garden/az1021/az1021.html>



Use a hand saw and aerial lift to prune tall palms.