

Palm Trees for Landscapes in Tulare & Kings Counties

Suggested by Nancy Gravender, UC Master Gardener



MEDIUM-SIZED PALM TREES (10-25 Ft. Tall)

FAN PALMS:

Guadalupe Palm (*Brahea edulis*) – Grows to 20 ft., spread 15 ft., solitary trunk, large handsome fan leaves, (old leaves self-prune), slow growth, temperature range 20-105 °F.

Mexican Blue Palm (*Brahea armata*) – Grows to 20 ft., spread 10 ft., solitary trunk, stiff, palmate fan covered with pale blue bloom, slow growth, temp. range 20-120 °F.

Mediterranean or European Fan Palm (*Chamerops humilis*) – Grows to 15 ft., spread 15 ft., clumping or multiple trunks, 4-5 ft. in diameter; fan, 2-3 ft. diameter stiff leaflets, petiole has sharp spines, slow growth, temp. range 20-120 °F.

Windmill Palm (*Trachycarpus fortunei*) – Grows to 15 ft. spread 5 ft., solitary trunk covered with old leaf bases, and brown fibrous matted hairy fibers; fan irregularly divided, if not trimmed, the old leaves hang down; temp. range 10-115 °F.

FEATHER PALMS:

Pigmy Date Palm (*Phoenix roebelinii*) – Grows to 10 ft., solitary trunk, 4-8 in. in diameter, feather with leaflets much softer than those of other *Phoenix* palms, although the lower leaflets still contain sharp spines, slow growth, temperature range 28-105 °F. Requires shade in this area.

Pindo Palm (*Butia capitata*) - Grows to 20 ft., spread 15 ft., solitary trunk, blue green pinnate feather, slow growth, temp. range 15-120 °F.

Queen Palm (*Syagrus romanzoffiana*) – Grows to 25 ft. spread 12 ft., solitary trunk ringed with old leaf bases, feather, plumose (leaflets radiating at different angles), fast growth with abundant summer water and fertilizer, temp. range 25-115 °F.

TALL PALM TREES (40-70 Ft. Tall)

FAN PALMS:

Chinese Fan Palm, Fountain Palm (*Livistona chinensis*) – Grows to 40 ft., solitary trunk, about 12 in. in diameter, often enlarged at the base, gray with barely distinguishable rings; fan, longer than wide glossy leaves with a spiny petiole, and strongly drooping leaf tips, slow growth, temp. range 20-110 °F.

California Fan Palm or California Cotton Palm (*Washingtonia filifera*) – Grows to 60 ft., spread 15 ft., solitary trunk up to 2 1/2 ft. or more thick, sometimes covered with a thick layer of old leaves which may extend down to the ground, though this is often removed to expose the trunk, which is smooth with vertical fissures; fan with thread-like fibers between the leaflets, reseeds readily and can become a nuisance with birds spreading the seeds, slow growth, temperature range 10-120°F.

Mexican Fan Palm, Cotton Palm (*Washingtonia robusta*) – Grows to 70 ft., spread 10 ft., solitary trunk much thinner than W. filifera, but equally likely to be covered with a thick layer of dead leaves; fan often smaller leaves than the W. filifera, reseeds readily and can become a nuisance with birds spreading seeds, slow growth, temp. range 15-120°F.

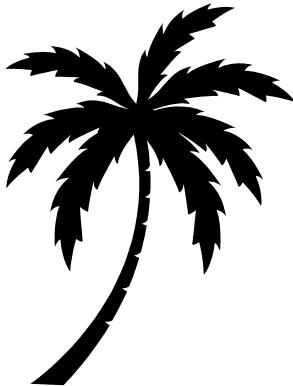
FEATHER PALMS:

Canary Island Date Palm (*Phoenix canariensis*) – Grows to 60 ft., spread 35 ft., solitary trunk, 3 ft. diameter, feather palm, lower leaflets are long and extremely stiff with sharp spines, medium growth, temp. range 20-110°F.

Date Palm (*Phoenix dactylifera*) – Grows to 60 ft., spread 25 ft., solitary or clumping trunks, 12 in. diameter; feather with leaflets coarser and fewer than the Phoenix Canariensis, slow growth, temp. temp. range 20-110°F.

Senegal Date Palm (*Phoenix reclinata*) – Grows to 40 ft., spread 30 ft., clumping trunks, feather palm, temp. range 25-110°F.

Palm Tree Care



Palms are very easy plants to grow in this area providing a climate-appropriate palm is selected and the basic requirements of good soil, plenty of water and proper fertilization is provided. An advantage of planting palms over other plants in the landscape is that their growth habit and dimensions are very predictable. Size and shape of few other plants can be as predictable as palms.

General Description:

- No main root
- Relatively little root ball, however roots grow wide over time

Sun Requirements:

- Generally, all the palms recommended for this area with the exception of the Pygmy Island Date Palm do best in full sun or nearly full sun. (It is recommended that the Pygmy Island Date Palm be shaded during a portion of the summer day.)

Soil Requirements:

- Soil requirements for palms recommended for this area can be met by a range of soil types. An obvious factor would be that the soil not be water logged with fairly good drainage.
- Older, more established palms will be much more tolerant of neglect and the current conditions may not reflect the nurturing required during its establishment phases.

Planting:

- Thoroughly soak palm in container before planting.
- Dig hole approximately twice the width of the root ball and sufficiently deep to accommodate the root system. In clay conditions, amendments such as well rotted compost or packaged soil amendments would improve drainage. Loosening the soil aids in rapid establishment and healthy growth. When the hole is ready, remove the palm from its container. Dead or badly coiled roots should be trimmed back or straightened out. Set the plant into the hole ensuring that the top of the container soil is just above the garden soil. Firm up the soil around the roots creating a watering basin about 3 inches high and at least as wide as the hole. Water thoroughly. Mulch area around the palm base to aid in avoiding rapid water evaporation during the hot dry summer.
- Planting time is recommended during spring through summer. The earlier the palm is planted in the warm season, the better, thus extending the growing period before the first chilling night temperatures arrive. Fall and winter are not recommended because little time will be available for the palm to establish itself prior to being subjected to cold temperatures and frost.

Watering:

- Most palms are somewhat drought tolerant, but will look and perform much better when provided regular watering. Water is best applied during early morning to avoid the rapid evaporation in the hot valley sun. Deep watering is best. Established palms have a large root system which can soak up water from a considerable distance within the surrounding soil. Thus, water should not be only applied to the soil immediately near the base of the plant, but rather should be more widely distributed. If the soil around the roots is well soaked at each watering, the plants can last for longer intervals without water.
- Hold off watering when temperatures begin cooling as winter approaches. (About September or October depending on the particular season you are experiencing.) Queen palms are especially vulnerable to freezing. Water is stored in the bole of Queen Palms. This water can freeze leading to severe damage or death of a palm.

Palm Tree Care (cont.)

Fertilizers/Mineral Requirements:

- Palm tree food consisting of high concentrations of nitrogen, potassium and magnesium will be very beneficial to increasing the growth of palms in this area. Follow the package instructions for amount to be applied. Usually the recommended feeding is three times during the warm months (starting in April with the last feeding in August).
- Large palm trees such as the Queen Palm, Canary Island Date Palm demand large amounts of food, and their growth rate can be significantly increased by heavy applications of fertilizers. For these trees, an additional dose of blood meal is very beneficial.

Pruning:

- Pruning of palms is generally necessary to remove unwanted or unattractive material such as suckers, clusters of fruit or dead fronds.
- Dead fronds or "shag" retained after many years hang as a brown skirt against the bole of the palm. This feature usually considered undesirable has additional drawbacks providing shelter for vermin like rats, and birds, as well as providing a fire risk. Remove fronds once they have begun to turn yellow or brown, and flowers talks once they have completely emerged by cutting them off neatly and as close to the stem as possible preventing any damage to the stem.

Nutritional Problems:

- Most problems in this area will be related to lack of one or a lack of a combination of specific nutrients in the soil.
- Common deficiencies include boron, iron, magnesium, nitrogen, potassium and zinc. This is why traditional fertilizers alone, are not completely effective for palms. General symptoms of nutrient deficiency include: yellowish appearance in the crowns with the older leaves becoming quite yellow or even bleached with necrotic patches on the leaflets (nitrogen), older leaves developing yellow areas between the veins with midrib and veins remaining green (magnesium), pale green new growth followed by yellowing of the areas between the veins (iron), necrotic spots and blotches on older leaves (potassium).
- Generally, the home gardener need not determine precisely the exact mineral deficiency; usually an application of palm tree fertilizer well watered into the surrounding soil (as directed on package) will solve the problem. The nutrients which are lacking will be absorbed through the root system.

Other Damaging Factors:

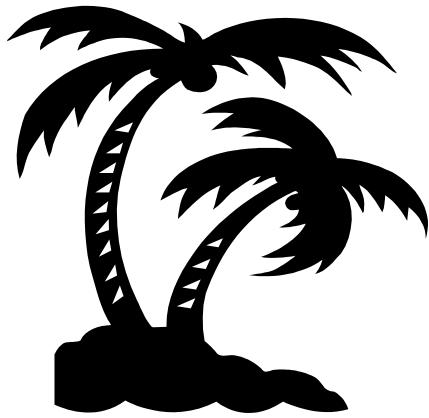
- **Wind Burn:** Developing palm fronds may be damaged by hot, dry winds so they become torn or develop white papery patches. This is usually a minor problem and little can be done for prevention or cure.
- **Frost Burn:** Many palms are sensitive to cold temperatures and are susceptible to frost burn. Young palms are most susceptible to cold temperatures than older more established palms. Symptoms of frost damage include blackening and collapse of developing leaves and the formation of brown patches on mature fronds. Sensitive species collapse, usually turning black or brown with the crown becoming a soggy mess. Protection from mild frosts can be achieved by planting close to buildings or large shrubs or under protective canopies of established trees.

Palm Tree Terms

Palms are grouped according to two main frond types:

- 1) **Feather-leaved or Pinnate Palms**, and
- 2) **Fan-leaved or Fan Palms**.

1) **Pinnate leaves** have a distinctive appearance resembling a feather. Leaflets can be stiff (e.g. Canary Island Date Palm, *Phoenix canariensis*) or drooping (e.g. Queen Palm, *Syagrus romanzoffiana*).



2) **Fan-leaved fronds** are semi-circular, circular or paddle-shaped and are divided into many segments. The leaves of this division are called *palmate*, if the segments are divided to the base joined at the top of the petiole (these types are not grown here). They are called *palmatifid*, if the leaves are only divided part way, which is typical of the fan palms grown in this region, e.g. Mediterranean or European Fan Palm (*Chamerops humilis*) and California Fan Palm or CA Cotton Palm (*Washingtonia filifera*).

Bole – Trunk of a tree or palm

Bract – A leaf-like structure which subtends a flower stem or part thereof

Canopy – The cover of foliage

Clumping – Clustering, with several stems or trunks

Dentate – Toothed

Denticulate – Finely toothed

Frond – Leaf of a Palm or Fern

Leaf-base – Specialized expanded and sheathing part of the petiole where it joins the trunk

Leaf-spine – A term sometimes used to describe the spine-like basal leaflets of *Phoenix* leaves; but may also be used to refer to spines on leaves.

Pinnate – Usually referring to leaves once divided with the divisions extending to the midrib.

Shag – A term referring to the persistent, hanging, dead leaves of some palms for example the California Fan Palm or California Cotton Palm (*Washingtonia filifera*).

Solitary – Describes a palm with a single stem or trunk.

Spear-leaf – The erect, unopened newest leaf of a palm.

Spine – A sharp, rigid projection.

Palm Tree Information courtesy of:



University of California Cooperative Extension Master Gardeners of Tulare & Kings Counties
Have a gardening question?

The UC Master Gardeners offer free information on gardening.
Call anytime and we will return your call.

Tulare: (559) 684-3325 or (559) 684-3326

Hanford: (559) 852-2736

