

Ornamental Palms for Central Florida¹

Timothy K. Broschat and James E. Davis²

Palms are often thought of as symbols of the tropics, but fortunately there are a number of palm species that grow in warm, temperate climates, such as that of Central Florida. Palms offer bold-textured foliage and characteristic growth forms that no other plant group can provide. Palms may have feather-like leaves (pinnate) or fan-shaped leaves (palmate) on slender to thick trunks. They may be single or multistemmed (clumping) and range in height from a couple of feet to more than 100 feet.

When choosing a palm for a particular site, keep in mind the species' ultimate size in terms of both height and spread. Are there overhead power lines nearby that the palm will eventually grow into? Will a tall species eventually look out of place next to a single-story house? Is there sufficient space to accommodate potentially large leaves or the broad spread of some clumping species? If the property is close to the seashore, keep in mind that only a few species tolerate salt spray on their foliage, and even fewer tolerate brackish water on their roots.

Planting Palms

When planting palms, avoid sites with very high water tables unless you can build up the site with a sand berm on which to plant. Dig a hole the same depth as the root ball but about twice the diameter. Place the palm in the hole and refill the hole with the soil that was removed from it. Research has shown no benefits from amending the backfill with organic matter (peat, etc.) or any other material. Do

not worry about any tightly wrapped roots in container-grown palms. Although wrapping roots can cause serious problems for broad-leaved trees and shrubs, wrapped palm roots will eventually be replaced by larger, straight roots from the base of the palm trunk. A properly planted palm should have about 1 inch of soil covering the top of the root ball. Large field-grown palms require specialized heavy equipment and are best installed by professional landscapers.

Container-grown palms benefit from fertilization with a good controlled-release, container-type fertilizer (an analysis of 18-6-12 or similar would be appropriate) applied to the soil surface over the planting hole during the first 6 months after planting. Field-grown palms may also be fertilized, but with a landscape palm fertilizer having an analysis of 8-2-12-4Mg. This landscape fertilizer should also be used on container-grown palms after the first 6 months.

In order to retain water in the vicinity of the root ball, it is recommended to construct a shallow (6–8 inches high) berm with soil just outside the perimeter of the planting hole. The amount of water to be applied and the frequency of its application depend on the soil type, temperature, humidity, wind speed, light intensity, and other conditions. The point is to apply enough water that it penetrates down to the bottom of the root ball. It should be repeated when the soil about 2 inches down begins to dry. The root ball should never be allowed to completely dry out until the palm becomes well established. For most species, that will

1. This document is ENH-60, one of a series of the Environmental Horticulture Department, UF/IFAS Extension. Original publication date February 1982. Revised June 1997, September 2003, December 2013, and July 2023. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.

2. Timothy K. Broschat, professor, UF/IFAS Fort Lauderdale Research and Education Center; and James E. Davis, Extension agent, UF/IFAS Extension Sumter County; UF/IFAS Extension, Gainesville, FL 32611.

generally be about 12 months after transplanting. Any bracing installed for support can be removed at that time. For more information about transplanting palms, see *Transplanting Palms in the Landscape* (<https://edis.ifas.ufl.edu/ep001>).

Palm Maintenance

Once established, palm maintenance is fairly simple. Completely dead leaves need to be removed if they do not fall off by themselves. However, avoid removing discolored or partially dead older leaves as these are symptoms of potassium deficiency (<https://edis.ifas.ufl.edu/ep269>); removing them removes a supplemental source of potassium for the palms growing in potassium-deficient soils (all soils in Central Florida are potassium deficient for palms). For more information, see *Pruning Palms* (<https://edis.ifas.ufl.edu/ep443>).

After a year of establishment, most palms do not require supplemental irrigation except under severe drought conditions. However, they do benefit from regular fertilization with a slow-release palm fertilizer having an analysis of 8-2-12-4Mg or 8-0-12-4Mg. For more information about fertilizing palms in the landscape, refer to *Fertilization of Field-Grown and Landscape Palms in Florida* (<https://edis.ifas.ufl.edu/ep261>).

Palm Problems


Most palms are susceptible to one or more problems that may be important when selecting a particular species. For example, Canary Island date palms (<https://edis.ifas.ufl.edu/publication/ST439>), queen palms, and Mexican fan palms (<https://edis.ifas.ufl.edu/publication/ST670>) are highly susceptible to a lethal disease called Fusarium wilt. Date palms, such as *Phoenix dactylifera* (edible date) and *P. sylvestris* (wild date), and cabbage palms (*Sabal palmetto*) are highly susceptible to Texas Phoenix palm decline (<https://edis.ifas.ufl.edu/pp163>), a Central Florida relative of lethal yellowing (<https://edis.ifas.ufl.edu/pp146>), a disease that does not occur in Central Florida. On the other hand, all palms are susceptible to trunk rot diseases, such as Ganoderma butt rot (<https://edis.ifas.ufl.edu/pp100>) and Thielaviopsis trunk rot (<https://edis.ifas.ufl.edu/pp143>), so there are no species resistant to these diseases from which to select. Planting a wide variety of palm species or mixing palms with hardwood trees helps reduce the chances for a disease epidemic. All palms are susceptible to nutritional deficiencies (<https://edis.ifas.ufl.edu/ep273>), physiological disorders (<https://edis.ifas.ufl.edu/ep263>), and insect pests, but most of these problems are treatable. Finally, when


growing palms in less than tropical climates, cold injury is a common recurring problem. For more information, please refer to *Cold Damage on Palms* (<https://edis.ifas.ufl.edu/mg318>).



Palm Species


Table 1 provides a list of palm species that generally grow well in Central Florida. While other species, including fox-tail palm (*Wodyetia bifurcata*), pygmy date palm (*Phoenix roebelenii*), triangle palm (*Dypsis decaryi*), and Alexandra palm (*Archonotophoenix alexandrae*), are sometimes marketed in Central Florida and may survive with damage in some protected locations, they are not reliably hardy in most of the region.





Table 1. Selected Palms for Central Florida.




Species	Common name	Leaf type	Typical size (H x W)	Zone*	Clumping/ single stem?	Salt spray tolerance	Comments
<i>Acoelorrhaphes wrightii</i> 	Paurotis palm	Fan	20 x 20 ft	9a	Clumping	Moderate	Poorly adapted to alkaline soils; petioles spiny
<i>Allagoptera arenaria</i> 	Seashore palm	Feather	5 x 8 ft	9b	Clumping	High	Shrubby palm with blue-green foliage; good for coastal sites
<i>Arenga engleri</i> 	Dwarf sugar palm	Feather	10 x 15 ft	9b	Clumping	Low	Individual stems die after fruiting
<i>Bismarckia nobilis</i> 	Bismarck palm	Fan	30 x 20 ft	9b?	Single stem	Moderate	Marginally hardy in Central Florida; silver and green forms exist; less wind resistant than most species
<i>Butia capitata</i> 	Pindo palm	Feather	15 x 12 ft	8a	Single stem	Low	Edible fruit; slow growing but extremely hardy
<i>X Butiagrus nabonnandii</i> 	Mule palm	Feather	25 x 20 ft	8a	Single stem	Low	Slow growing; variable in size and form

Species	Common name	Leaf type	Typical size (H x W)	Zone*	Clumping/ single stem?	Salt spray tolerance	Comments
<i>Chamaedorea microspadix</i> 	Hardy bamboo palm	Feather	6 x 6 ft	9a	Clumping	Low	Requires shade
<i>Chamaedorea radicalis</i>	Dwarf bamboo palm	Feather	5 x 3 ft	9a	Clumping	Low	Requires shade
<i>Chamaerops humilis</i> 	European fan palm	Fan	15 x 20 ft	8a	Clumping	Moderate	Extremely hardy; petioles are spiny
<i>Copernicia alba</i> 	Caranday palm	Fan	35 x 12 ft	9b	Single stem	Moderate	Petioles spiny
<i>Livistona australis</i> 	Australian cabbage palm	Fan	40 x 12 ft	9b	Single stem	Moderate	Petioles spiny
<i>Livistona chinensis</i> 	Chinese fan palm	Fan	30 x 12 ft	9b	Single stem	Moderate	Drooping leaflet tips

Species	Common name	Leaf type	Typical size (H x W)	Zone*	Clumping/ single stem?	Salt spray tolerance	Comments
<i>Livistona decora</i> 	Ribbon palm	Fan	30 x 12 ft	9b	Single stem	Low	Finely divided drooping leaflets
<i>Livistona fulva</i>	Blackdown Tableland palm	Fan	30 x 15 ft	9b	Single stem	Moderate	Undersurface of new leaves tawny colored
<i>Livistona rigida</i>	Red palm	Fan	30 x 15 ft	9b	Single stem	Moderate	Seedlings have dull red color; petioles spiny
<i>Livistona saribus</i> 	Taraw palm	Fan	35 x 15 ft	9b	Single stem	Moderate	Green petiole form thought more cold hardy than red petiole form
<i>Nannorhops ritchiana</i>	Mazari palm	Fan	10 x 12 ft	8a	Clumping	Moderate	Blue-green foliage; individual stems die after fruiting
<i>Phoenix canariensis</i> 	Canary Island date palm	Feather	40 x 25 ft	9a	Single stem	Low	Spiny petioles; susceptible to Fusarium wilt and Texas Phoenix palm decline
<i>Phoenix dactylifera</i> 	Edible date palm	Feather	50 x 25 ft	9a	Single stem	High	Blue-green foliage; spiny petioles; susceptible to Texas Phoenix palm decline
<i>Phoenix reclinata</i> 	Senegal date palm	Feather	45 x 40 ft	9b	Clumping	Moderate	Too large for small properties; spiny petioles; susceptible to Texas Phoenix palm decline; can be invasive

Species	Common name	Leaf type	Typical size (H x W)	Zone*	Clumping/ single stem?	Salt spray tolerance	Comments
<i>Phoenix sylvestris</i> 	Wild date palm	Feather	40 x 25 ft	9a	Single stem	Moderate	Spiny petioles; susceptible to Texas Phoenix palm decline
<i>Rhapidophyllum hystrix</i> 	Needle palm	Fan	6 x 6 ft	7a	Clumping	Low	Spines on trunk; does best under shade; very cold hardy
<i>Rhapis excelsa</i> 	Lady palm	Fan	8 x 8 ft	9a	Clumping	Low	Grows best under shade
<i>Rhapis humilis</i> 	Slender lady palm	Fan	10 x 12 ft	9a	Clumping	Low	Grows best under shade
<i>Rhapis multifida</i> 	Finger palm	Fan	8 x 8 ft	9a	Clumping	Low	Grows best under shade
<i>Sabal causiarum</i> 	Puerto Rican hat palm	Fan	50 x 16 ft	9a	Single stem	Moderate	Massive trunk; very cold hardy

Species	Common name	Leaf type	Typical size (H x W)	Zone*	Clumping/ single stem?	Salt spray tolerance	Comments
<i>Sabal minor</i> 	Dwarf palmetto	Fan	8 x 8 ft	7a	Single stem	Moderate	Rarely forms a trunk, but var. Louisiana does
<i>Sabal palmetto</i> 	Cabbage palm	Fan	50 x 10 ft	8a	Single stem	High	May or may not retain old leaf bases; susceptible to Texas Phoenix palm decline
<i>Serenoa repens</i> 	Saw palmetto	Fan	6 x 12 ft	8b	Clumping	High	Silver- and green-leaved forms exist; develops sprawling underground or prostrate trunks
<i>Syagrus romanzoffiana</i> 	Queen palm	Feather	50 x 18 ft	9b	Single stem	Moderate	Grows poorly on alkaline soils; susceptible to Fusarium wilt; less wind resistant than most species
<i>Trachycarpus fortunei</i> 	Windmill palm	Fan	25 x 7 ft	8a	Single stem	Low	Extremely cold hardy
<i>Trachycarpus latisectus</i>	Windamere palm	Fan	25 x 7 ft	9a	Single stem	Low	Similar to <i>T. fortunei</i>

Species	Common name	Leaf type	Typical size (H x W)	Zone*	Clumping/ single stem?	Salt spray tolerance	Comments
<i>Trachycarpus martianus</i> 	Khasia Hills palm	Fan	25 x 7 ft	9a	Single stem	Low	Similar to <i>T. fortunei</i>
<i>Trachycarpus wagnerianus</i>	Miniature Chusan palm	Fan	20 x 5 ft	9a	Single stem	Low	Similar to <i>T. fortunei</i>
<i>Washingtonia filifera</i> 	California fan palm	Fan	50 x 12 ft	8b	Single stem	Moderate	Hardy but poorly adapted to humid climates; susceptible to Fusarium wilt
<i>Washingtonia robusta</i> 	Mexican fan palm	Fan	80 x 10 ft	9a	Single stem	Moderate	Grows too tall for residential landscapes; susceptible to Fusarium wilt; fast growing, but not as wind resistant as other species
*USDA plant hardiness zone							