

Ornamental Palms for South Florida ¹

Timothy K. Broschat and Robert J. Black²

Palms are a dominant part of south Florida's landscape and add a tropical image to this part of the state. Palms vary greatly in size from those that mature at a height of less than 3 feet with pencil-thick stems to monsters over 100 feet tall with trunks approaching 3 feet in diameter. Palms may be single-stemmed or have multiple trunks (clumping palms). Single-stemmed palms fit into small spaces better than most broadleaved trees because they do not branch. On the other hand, some clumping palms can become too large for typical residential landscapes. Palms may have feather-shaped (pinnate) leaves that impart a relatively fine texture, or fan-shaped (palmate or costapalmate) leaves that are very bold in texture. Some have rather rigid leaves, while others have weeping leaflets that provide additional interest in the landscape. Proper selection will ensure that the palm you plant will be appropriate for your particular site and desired effect.

Although most palms grow best in full sun, some are intolerant of direct sunlight and must be grown in shaded locations. Similarly, most palms are quite tolerant of both wet and dry soils once established. However, there are palms that cannot tolerate drought conditions and others that will not survive in very wet soils. When palms are to be planted near the coast, tolerance to salt spray is another important consideration when selecting palms. Palms listed as having high salt tolerance can be grown in exposed sites near the seashore, those with moderate salt tolerance must be planted in protected sites near the ocean, and those with

low salt tolerance should not be planted within ¼ mile of the seashore.

Typically, palms will fare better in windstorms than broad-leaf trees, but some are even better adapted than others. Proper palm selection will improve the chances of a palm thriving in a particular location. Table 1 lists a number of species that can be grown in south Florida landscapes. Although many other species have been successfully grown in south Florida, they are relatively rare in the nursery industry and thus are not readily available.

Palm Maintenance

Palms are often thought to be low maintenance plants in the landscape, but in south Florida's infertile soils, nutrient deficiencies are common and can result in unsightly deficiency symptoms or even death of a palm. Unlike broadleaf trees that usually grow well without fertilization, most palms in Florida landscapes require supplemental fertilization with an appropriate palm fertilizer to prevent or treat these deficiencies. For information about palm nutrient deficiencies and proper fertilization see EDIS publications EP273 *Nutrient Deficiencies of Landscape and Field-grown Palms in Florida* and EP261 *Fertilization of Field-grown and Landscape Palms in Florida*.

Another maintenance consideration is whether a palm is self-cleaning or not. Many tropical palms have tightly

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clasping leaf bases that form a smooth green stem-like area just above the true trunk called a crownshaft. Palms with crownshafts that do not have extensive potassium deficiency symptoms are self-cleaning. That is, old senescing leaves will fall off cleanly by themselves. When old leaves of non-crownshaft palms senesce, they will simply hang down against the trunk and must be manually cut off. It is important to note that half-dead or discolored older leaves that remain on a palm for several weeks or longer are probably exhibiting symptoms of potassium deficiency (see EDIS publication EP269 *Potassium Deficiency in Palms*) and not natural senescence. Natural senescence of healthy old palm leaves takes only a few days for a leaf to turn from completely green to uniformly orange-brown and finally completely dead.

Insect Problems

Although most insect pests have a minor impact on palm appearance and health and are not particular about which palms they feed on, there are some exceptions. A few palms are particularly attractive to some insect pests that can become debilitating or even fatal to the palms.

Other Considerations

In addition to palm physical appearance, susceptibility to disease or insect problems, and adaptability to a particular site, other attributes may also be important, especially if small children are present. Many palms have sharp spines on their petioles or trunks that can be quite dangerous. Others have fruits that contain high concentrations of skin-irritating chemicals. Such fruits should not be handled unless rubber gloves are worn.

Planting

Palms may be planted during any season of the year, but the warm, rainy summer months are best. Small, container-grown palms of any species can be transplanted easily. However, some species such as *Archontophoenix* spp. are notoriously difficult to transplant from field nurseries.

Follow the steps below when planting a palm:



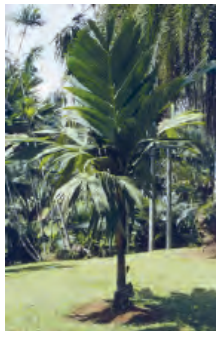
1. Dig the hole at least 6 inches larger in diameter than the root ball to ensure that the backfill soil will be in contact with the entire root ball. The hole should be deep enough so that the top of the root ball of a field-grown palm is even with the surface of the ground. For container-grown palms, make sure that the base of the stem (if visible) is about an inch below the surface of the soil.



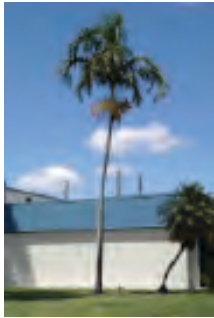


2. Amending the backfill soil is not recommended.
3. Gently position the palm so that it is upright, and fill around the root ball with soil. Water thoroughly to remove any air pockets.
4. Form a basin with soil around the perimeter of the root ball to retain water during irrigation.
5. Support large trees with braces to maintain stability during the first 6 to 8 months. Nails should not be driven directly into palm trunks.
6. Water daily for the first few weeks and frequently thereafter until the palms are well established.

For additional information on planting palms see EDIS publication EP001 *Transplanting Palms*.

Table 1. Ornamental Palms for South Florida

Scientific Name	Common Names	Leaf Type	Crownshaft?	Typical Size (H x W)	Stem Thickness	Growth Habit	Salt Spray Tolerance	Irritating Fruits?	Comments
<i>Acoelorrhaphes wrightii</i> * 	Paurotis palm, Everglades palm	Fan	No	20 x 20 ft	Slender	Clumping	Moderate	No	Grows poorly on alkaline soils. Spiny petioles.
<i>Adonidia merrillii</i> 	Christmas palm, Manila palm	Feather	Yes	20 x 6 ft	Slender	Single-stem	Moderate	No	Well-adapted to south Florida soils. Highly susceptible to lethal yellowing disease.
<i>Aiphanes acanthophylla</i> 	Ruffle palm	Feather	No	20 x 8 ft	Slender	Single-stem	Low	No	Attractive small, but vicious palm. Spiny trunk and leaves.
<i>Allagoptera arenaria</i> 	Seashore palm	Feather	No	6 x 8 ft	Slender	Clumping	High	No	Silvery foliage; excellent seaside palm. No major problems.
<i>Archontophoenix alexandrae</i> 	Alexandra palm; King palm	Feather	Yes	40 x 15 ft	Medium	Single-stem	Low	Yes	Rigid leaflets often held in vertical plane. Difficult to transplant from a field nursery.



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<i>Archontophoenix cunninghamiana</i> 	Picabeen palm	Feather	Yes	30 x 12 ft	Medium	Single-stem	Low	Yes	Similar to <i>A. alexandrae</i> , but leaflets more lax. No major problems.
<i>Areca catechu</i> 	Betel nut palm	Feather	Yes	30 x 10 ft	Slender	Single-stem	Low	No	Ringed green trunk. Cold-sensitive.
<i>Areca vestiaria</i> 	Orange crownshaft palm	Feather	Yes	12 x 8 ft	Slender	Single-stem	Low	No	Striking orange-red crownshaft. Cold-sensitive.
<i>Arenga engleri</i>	Dwarf sugar palm	Feather	No	10 x 15 ft	Slender	Clumping	Low	Yes	Allow plenty of room to spread. Individual stems die after fruiting.
<i>Arenga pinnata</i>	Sugar palm	Feather	No	40 x 25 ft	Medium	Single-stem	Moderate	Yes	Stiff black fibers around trunk. Short-lived; dies after fruiting.
<i>Attalea</i> spp.	American oil palms	Feather	No	60 x 35 ft	Medium-thick	Single-stem	Moderate	No	Huge palms with upright form. No major problems.






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<i>Bismarckia nobilis</i> 	Bismarck palm	Fan	No	40 x 18 ft	Thick	Single-stem	Moderate	No	Bold-textured blue-green or light green foliage. Fares poorly in windstorms; difficult to transplant from field nursery. Quite susceptible to palm weevils.
<i>Butia odorata</i> 	Pindo palm; jelly palm	Feather	No	20 x 12 ft	Medium	Single-stem	Moderate	No	Edible fruits; gray-green foliage. Grows better in north Florida.
<i>Carpentaria acuminata</i> 	Carpentaria palm	Feather	Yes	50 x 10 ft	Medium	Single-stem	Low	Yes	Attractive red fruits. Leaves easily tattered by wind.
<i>Caryota mitis</i> 	Clustering fishtail palm	Feather	No	20 x 12 ft	Medium	Clumping	Low	Yes	Unusual twice compound leaves. Short-lived—entire palm dies after fruiting.
<i>Caryota urens</i> 	Toddy fishtail palm	Feather	No	40 x 18 ft	Medium	Single-stem	Low	Yes	Attractive twice compound leaves; <i>C. maxima</i> and <i>C. no</i> are similar. Short-lived; dies after fruiting

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<i>Chamaedorea cataractarum</i> 	Cat palm	Feather	No	8 x 8 ft	Very Slender	Clumping	Low	Yes	Grows best in shade. No major problems.
<i>Chamaedorea elegans</i> 	Parlor palm	Feather	No	5 x 2.5 ft	Very Slender	Single-stem	Low	Yes	Requires shade. No major problems.
<i>Chamaedorea metallica</i> 	Miniature fishtail palm	Feather	No	4 x 2 ft	Very Slender	Single-stem	Low	Yes	Blue-green 2-lobed leaves. Bright orange flower stalks.
<i>Chamaedorea erumpens/C. seifrizii</i> 	Bamboo palm/reed palm	Feather	No	8 x 6 ft	Very Slender	Clumping	Low	Yes	Does best in shade. No major problems.
<i>Chamaerops humilis</i> 	European fan palm	Fan	No	15 x 20 ft	Slender	Clumping	Moderate	No	Leaves may be blue-green to light green. Petioles are spiny.





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<i>Chambeyronia macrocarpa</i>	Red feather palm	Feather	Yes	25 x 12 ft	Medium	Single-stem	Low	No	New leaves of some specimens have reddish color.
<i>Coccothrinax crinita</i> 	Old man palm	Fan	No	15 x 8 ft	Medium	Single-stem	Low	No	Trunk is covered with stiff curly hairs.
<i>Coccothrinax spp.*</i> 	Silver palms	Fan	No	15-25 x 6 ft	Slender	Single-stem	High	No	Undersides of leaves are silver colored.
<i>Cocos nucifera</i> 	Coconut palm	Feather	No	40-60 x 20-25 ft	Medium-thick	Single-stem	High	No	Malayan dwarf has more slender straight trunk; all cultivars susceptible to lethal yellowing.
<i>Copernicia alba</i> 	Caranday palm	Fan	No	30 x 10 ft	Medium	Single-stem	Moderate	No	Light green foliage. Petioles are spiny.
<i>Copernicia baileyana</i>	Bailey palm	Fan	No	40 x 15 ft	Thick	Single-stem	Moderate	No	Massive trunk; very majestic; best for large properties. Petioles are spiny.


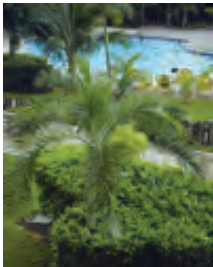


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<i>Copernicia hospita</i> 	Hospita palm	Fan	No	20 x 12 ft	Medium	Single-stem	Moderate	No	Blue-green foliage. Petioles are spiny.
<i>Copernicia macroglossa</i>	Cuban petticoat palm	Fan	No	15 x 10 ft	Slender	Single-stem	Moderate	No	Retains a skirt of old leaves; extremely short petioles.
<i>Copernicia prunifera</i> 	Carnauba wax palm	Fan	No	35 x 12 ft	Medium	Single-stem	Moderate	No	Source of carnauba wax. Petioles are spiny.
<i>Dictyosperma album</i> 	Princess palm; hurricane palm	Feather	No	20 ft	Medium	Single-stem	Moderate	Yes	<i>Var. rubrum</i> has reddish foliage when young. Susceptible to lethal yellowing.
<i>Dypsis cabadae</i> 	Cabada palm	Feather	Yes	30 x 15 ft	Slender	Clumping	Moderate	No	Attractive ringed green trunks.
<i>Dypsis decaryi</i> 	Triangle palm	Feather	Yes	25 x 15 ft	Medium	Single-stem	Low	No	Blue-green leaves radiate out from trunk in three planes. Highly susceptible to potassium deficiency.




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<i>Dypsis leptocheilos</i> 	Teddy bear palm	Feather	Yes	30 x 15 ft	Medium	Single-stem	Low	No	Crownshaft is covered with rusty fuzz.
<i>Dypsis lutescens</i> 	Areca palm; butterfly palm	Feather	Yes	30 x 20 ft	Slender	Clumping	Moderate	No	Very high nutrient requirements; orange petioles and leaf scorch caused by nitrogen and potassium deficiencies.
<i>Elaeis guineensis</i> 	African oil palm	Feather	No	50 x 25 ft	Medium	Single-stem	Moderate	No	Allow space for large canopy; very high nutritional requirements. Petioles are spiny.
<i>Heterospathes elata</i> 	Sagisi palm	Feather	No	45 x 12 ft	Slender	Single-stem	Low	No	Slow growing until trunk forms.
<i>Howea forsteriana</i> 	Kentia palm	Feather	No	20 x 12 ft	Medium	Single-stem	Moderate	No	Does best in shade. Tends to be short-lived in Florida.





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<i>Hyophorbe lagenicaulis</i> 	Bottle palm	Feather	Yes	12 x 6 ft	Thick	Single-stem	High	Yes	Bulbous trunk when young; holds few leaves.
<i>Hyophorbe verschafeltii</i> 	Spindle palm	Feather	Yes	15 x 8 ft	Medium	Single-stem	High	Yes	Similar to <i>H. lagenicaulis</i> but narrower trunk. Particularly susceptible to potassium deficiency.
<i>Hyphaene</i> spp. 	Gingerbread palms	Fan	No	30 x 30 ft	Medium	Clumping/branching	High	No	Broad spreading and even branching clumps of stems. Petioles are spiny.
<i>Latania</i> spp. 	Latan palms	Fan	No	20 x 12 ft	Medium	Single-stem	Moderate	No	Blue-green foliage; leaves of juvenile <i>L. lontaroides</i> reddish. Leaf skeletonizer insects often a problem.
<i>Leucothrinax x morrisii</i> 	Keys thatch palm	Fan	No	20 x 6 ft	Slender	Single-stem	High	No	Excellent small palms.

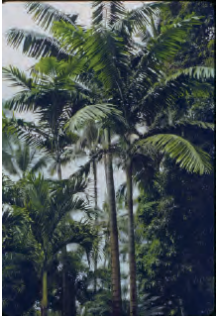
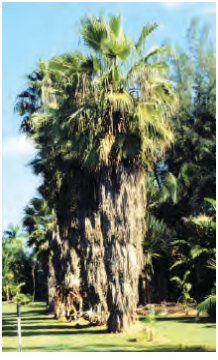

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<i>Licuala grandis</i> 	Licuala palm	Fan	No	10 x 6 ft	Slender	Single-stem	Low	No	Has round leaves with spiny petioles; does best in shade.
<i>Licuala spinosa</i> 	Spiny licuala palm	Fan	No	10 x 8 ft	Slender	Clumping	Low	No	Leaves are shaped like spokes of a wheel. Has spiny petioles.
<i>Livistona australis</i> 	Australian fan palm	Fan	No	45 x 12 ft	Medium	Single-stem	Moderate	No	Attractive weeping leaflet tips. Especially susceptible to potassium deficiency.
<i>Livistona chinensis</i> 	Chinese fan palm	Fan	No	30 x 16 ft	Medium	Single-stem	Moderate	No	Slow growing until trunk forms. Has bluish-green fruit.
<i>Livistona decora</i> 	Ribbon fan palm	Fan	No	30 x 15 ft	Medium	Single-stem	Moderate	No	Deeply divided weeping leaves.

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<i>Livistona rotundifolia</i> 	Footstool palm	Fan	No	40 x 12 ft	Medium	Single-stem	Low	No	Has round leaves with spiny petioles.
<i>Livistona saribus</i>	Taraw palm	Fan	No	40 x 16 ft	Medium	Single-stem	Moderate	No	Deeply divided weeping leaves.
<i>Phoenix canariensis</i> 	Canary Island date palm	Feather	No	40 x 22 ft	Thick	Single-stem	Moderate	No	Intolerant of wet sites. Spiny petioles. Susceptible to Texas Phoenix palm decline, fusarium wilt, palm weevils, and potassium and magnesium deficiencies.
<i>Phoenix dactylifera</i> 	Date palm	Feather	No	60 x 25 ft	Medium	Clumping/ single stem	High	No	Has blue-green leaves with spiny petioles. Susceptible to lethal yellowing and Texas Phoenix palm decline.
<i>Phoenix reclinata</i> 	Senegal date palm	Feather	No	40 x 30 ft	Medium	Clumping	Moderate	No	Requires very large area. The palm is weedy and has spiny petioles.

Scientific Name	Common Names	Leaf Type	Crownshaft?	Typical Size (H x W)	Stem Thickness	Growth Habit	Salt Spray Tolerance	Irritating Fruits?	Comments
<i>Phoenix roebelenii</i> 	Pygmy date palm	Feather	No	12 x 7 ft	Slender	Single-stem	Moderate	No	Knobby trunks are often crooked. Petioles are spiny.
<i>Phoenix rupicola</i>	Cliff date	Feather	No	25 x 20 ft	Medium	Single-stem	Moderate	No	Smaller than <i>P. dactylifera</i> . Has spiny petioles.
<i>Phoenix sylvestris</i>	Wild date palm	Feather	No	40 x 20 ft	Medium	Single-stem	Moderate	No	Gray-green leaves with spiny petioles; smaller than <i>P. dactylifera</i> . Susceptible to lethal yellowing and Texas Phoenix palm decline.
<i>Pinanga coronata</i>	Ivory cane palm	Feather	Yes	10 x 8 ft	Very slender	Clumping	Low	Yes	Does best in protected shady site.
<i>Pseudophoenix sargentii</i> * 	Buccaneer palm	Feather	No	10 x 7 ft	Medium	Single-stem	High	Yes	Holds only a few leaves which are blue-green. Unknown disease of leaf bases slowly kills these palms.
<i>Ptychosperma elegans</i> 	Solitaire palm	Feather	Yes	25 x 8 ft	Slender	Single-stem	Low	No	Often grown as multiples in a container. Can be weedy.
<i>Ptychosperma macarthurii</i> 	Macarthur palm	Feather	Yes	30 x 15 ft	Slender	Clumping	Low	Yes	Can be weedy.

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<i>Ravenea rivularis</i> 	Majesty palm	Feather	No	30 x 10 ft	Medium	Single-stem	Moderate	No	Stays short for a long time; light green foliage. Weevils can be a problem.
<i>Rhapidothylum hystrix*</i> 	Needle palm	Fan	No	6 x 6 ft	Very Slender	Clumping	Moderate	No	Grows best in shade. Trunks are spiny.
<i>Rhapis excelsa</i> 	Lady palm	Fan	No	8 x 8 ft	Very Slender	Clumping	Moderate	No	Grows best in shade. Spreads quickly by underground rhizomes.
<i>Roystonea spp.*</i> 	Royal palms	Feather	Yes	70 x 20 ft	Thick	Single-stem	Moderate	Yes	Best for large properties. Royal palm bug causes damage in late winter and spring.
<i>Sabal causiarum</i> 	Puerto Rican hat palm	Fan	No	45 x 15 ft	Very Thick	Single-stem	Moderate	No	Massive trunk; best for large properties.

Scientific Name	Common Names	Leaf Type	Crownshaft?	Typical Size (H x W)	Stem Thickness	Growth Habit	Salt Spray Tolerance	Irritating Fruits?	Comments
<i>Sabal mauritiiformis</i> 		Fan	No	40 x 10 ft	Medium	Single-stem	Moderate	No	Faster growing than <i>S. palmetto</i> . Leaves easily tattered by wind.
<i>Sabal minor</i> *	Dwarf palmetto; blue palmetto	Fan	No	6-8 x 8 ft	None	Single-stem	Moderate	No	Trunkless palm can be used like a shrub.
<i>Sabal palmetto</i> * 	Cabbage palm; sabal palm	Fan	No	50 x 10 ft	Medium	Single-stem	High	No	Florida state tree. Susceptible to Texas Phoenix palm decline.
<i>Serenoa repens</i> * 	Saw palmetto	Fan	No	6 x 8 ft	Slender	Clumping	High	No	Silver and green leaves forms exist; develops sprawling prostrate trunks. Petioles are spiny.
<i>Syagrus coronata</i>		Feather	No	30 x 12 ft	Medium	Single-stem	Moderate	No	Attractive spiral pattern of old leaf bases. Slow growing.
<i>Syagrus romanzoffiana</i> 	Queen palm	Feather	No	50 x 18 ft	Medium	Single-stem	Moderate	No	Poorly adapted to alkaline soils. Highly susceptible to potassium, manganese, and boron deficiencies and Fusarium wilt.

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<i>Syagrus schizophylla</i>	Arikury palm	Feather	No	12 x 6 ft	Medium	Single-stem	Moderate	No	Small palm with upright form and spiny petioles. Particularly susceptible to potassium deficiency.
<i>Thrinax</i> spp.*	Thatch palms	Fan	No	20 x 6 ft	Slender	Single-stem	High	No	Excellent small palms.
<i>Veitchia</i> spp. 		Feather	Yes	60 x 12 ft	Medium	Single-stem	Moderate	No	Some species can get too tall for residential properties.
<i>Washingtonia robusta</i> 	Mexican fan palm	Fan	No	80 x 8 ft	Medium	Single-stem	Moderate	No	Too tall for residential properties. Susceptible to fusarium wilt.
<i>Wodyetia bifurcata</i> 	Foxtail palm	Feather	Yes	40 x 12 ft	Medium	Single-stem	Moderate	No	Poorly adapted to alkaline soils. Highly susceptible to potassium and manganese deficiencies.
<i>Zombia antillarum</i>	Zombie palm	Fan	No	12 x 10 ft	Slender	Clumping	High	No	Attractive spirally-arranged pattern of spines on trunk.

*Indicates native to Florida