

A WORD OR TWO ABOUT GARDENING

Some small durable palms for Miami-Dade

What with zero lot housing and increased concern over hurricanes, size certainly does matter when it comes to landscaping decisions. As far as palms are concerned they are regarded overall as being reasonably tolerant of hurricanes; the trunk and canopy able to flex more in high winds and offering less resistance than many trees. Palms that do blow over usually exhibit good recovery providing the apical bud is not damaged and the root ball protected from drying out before resetting. Washingtonias are a notable exception being more susceptible to toppling over than most palms based on previous hurricanes, while the diseased trunk of any palm could snap in a strong wind. Small palms offer even less wind resistance (large clumps of clustering palms are an exception) and are easier to reset. Irrespective of potential hurricane damage, choosing a palm that is too large for the intended site can potentially overpower both house and landscape. Witness the all too frequent inappropriate use of one popular south Florida palm, *Bismackia*.

The Bismarck palm (*Bismarckia nobilis*) is certainly, as the specific epithet 'nobilis' suggests a noble and stately palm. It eventually reaches a height of from 30-40' with a sturdy trunk and an immense canopy of more than 20 blue-green leaves spreading to more than 20'. Individual leaves are fan shaped to 10' in diameter on a stout 8' petiole. It should be apparent that this is not a palm for a small residential yard, where it eventually becomes totally out of scale, dwarfing if not obscuring the residence. The most flagrant misuse of *Bismarckia* are instances where it has been installed as what amounts to a close spaced screen in some of south Miami-Dade's new housing developments. Despite being comparatively free of serious pest and disease problems, this is not a lethal yellowing resistant substitute for a Christmas palm. It needs a large open yard to fully appreciate its grandeur.

Bismarckias take time to become established. The growth rate is very slow for the first few years increasing once a clear trunk becomes visible. For a time a *Bismarckia* can function as the center piece of a small yard, but after 10-15 years the trunk will have gained sufficient height to elevate the canopy so that it is lost as the focal point of the landscape. As it grows the Bismarckia's full impact can only be fully appreciated at a distance (outside the limits of the small yard in which it was planted). For a small yard if you want a palm with bluish/silvery leaves try the blue leaf form of the saw palmetto or the key thatch palm – more about these later. Just as in deciding on a tree or shrub, do some research as to ultimate height and canopy spread when choosing a palm. Bear in mind that apart from some thinning out of clustering types, you cannot cut a palm back if it becomes too large!

What follows is a review of both solitary and multi-stemmed small palms (under 20' in height) suitable for a Miami-Dade landscape and durable when grown under the conditions recommended. Unless otherwise indicated all palms discussed are currently regarded as resistant to lethal yellowing (LY). Most small palms form part of the forest understory ranging from dense humid tropical forests to drier more open woodland to open pine/scrub land. There are small palms suitable for a variety of situations from full sun to shade, and ocean front to native pine land. They

can as we will next first see, serve as invaluable components of a tropical shade garden where the choice of woody shrubs is limited.

Most familiar are the **chamaedoreas** several of which have long been popular as interior potted palms. Leaf texture can vary from the finely divided leaves of the cat palm (*Chamaedorea cataractarum*) to the more substantial bifid (two lobes) leaves of *C. metallica*. The latter palm is solitary, slow growing to about 4-5', the leaf surface somewhat wrinkled with an attractive metallic sheen. Try using several of these palms along with the contrasting foliage of a compact fern such as *Nephrolepis* 'Fancy Frill'[™] to fill in shaded bare ground under tree cover. Somewhat taller, to 6', *C. ernesti-augusti* has leaves similar to *C. metallica* but without the metallic sheen. The cat palm is a trunkless, dense, clumping palm to 5' that can take dappled shade – full sun for part of the day if frequently watered. Possessing more leathery leaflets and open growth habit than a cat palm, the radicalis palm (*C. radicalis*) is well adapted to high pH soils and tolerates freezing temperatures.

The upright densely clustering chamaedoreas are commonly referred to as bamboo palms. One of the most vigorous of these is the Costa Rican bamboo palm (*C. costaricana*) growing to about 10' with slender green canes bearing 2-4' long leaves composed of many narrow, thin, light green leaflets. Provide space of at least 6' for the clump to spread. As they mature bamboo palms can take some morning sun providing the soil remains moist. The hardy bamboo palm (*C. microspadix*) has coarser foliage than *C. costaricana*, but can tolerate freezes and is less susceptible to spider mite damage than other chamaedoreas. The most familiar of the bamboo palms, *C. seifrizii*, is commonly seen in interiorscapes but is a good choice for south Florida where it is more tolerant of local infertile soils than other chamaedoreas.

Another group of familiar palms for the shade garden are **lady palms** (*Raphis* spp.), densely clustering palms having thin stems covered with matted fibers (leaf sheath remnants). Where this covering is lost stems appear prominently ringed closely resembling bamboo. Leaves are palmate, 2½' wide; each deeply divided into about 15 thick segments with shallow longitudinal folds. Under favorable growing conditions (slightly acidic, moist soils and partial shade), leaves are dark green with a semi glossy surface. If exposed to sun leaves become pale, appearing burnt where soils lack moisture. In addition, on Miami-Dade's high pH soils leaves can yellow and develop necrotic spots as a result of trace element deficiencies (iron and manganese).

Rhapis excelsa is the most common species seen, growing locally to about 7' - a number of Japanese cultivars varying in plant/leaf size, some with variegated foliage, are available from specialist growers. Other species include *R. humilis* (**slender lady palm**), one of the tallest of *Rhapis* palms (to 18', but much smaller locally) with smaller leaves. The above palms are occasionally infested with scale insects or mealybugs and spider mites during hot dry weather. Banana moth caterpillars can destroy stems but this is most often a nursery problem. Gliocladium blight affects chamadoreas but more so container plants and primarily during winter in south Florida. ***Chuniophoenix nana*** is a dwarf multi-stemmed palm (4½') that resembles lady palm but is unrelated. Like lady palms it requires some shade, but appears better adapted to alkaline soils – relatively easy to grow in south Florida given suitable site. Once purely a collector's item, it is slowly becoming more widely available in local nurseries.

Although far from being durable two stunning understory palms, the **red sealing wax** and **joey palms**, deserve mention. *Johannesteijsmannia altifrons* (joey palm) is a slow growing trunkless palm; the leaves which arise directly from an underground rootstock are huge (up to 18') pleated,

diamond shaped with serrated margins. The silver joey (*J. magnifica*) has somewhat smaller leaves (10') with a 3' petiole, the blade underside appearing silvery due to a covering of fine surface hairs. The red sealing wax palm (*Cyrtostachys renda*) is a multi-stemmed palm much admired for the bright red crownshaft and leaf petiole. This again is a slow growing palm with stems reaching up to 18' and bearing up to ten 3-4' long pinnately compound leaves. The sealing wax is more readily available than the joey palm but both are expensive and difficult to grow requiring adequate protection from cold drying winds in winter. Unless you can duplicate rainforest conditions in your yard year round these palms are best grown in containers so that they can be moved at the first hint of cold weather (temperatures below 40°F for joey palm and 55°F for red sealing wax palm). More amenable to Miami-Dade conditions (provide shade, moist soil, mulch and shelter from direct wind), the ***Calyptrocalyx*** sp. are a group of mostly small, clustering understory palms from New Guinea. They are admired for the newly emerged leaves, conspicuously tinted various shades of red. Of limited availability in the US, they offer much promise as accent plants for the shade garden, especially *C. polyphyllus* with its bright red 3' pinnately compound leaves.

For areas where there is shifting shade the following three palms are readily available and can be safely grown outdoors in Miami-Dade. The clustering **ivory cane palm** (*Pinanga kuhlii*) is easy to grow providing it is protected from direct exposure to wind and the soil is not allowed to dry out. Locally rarely more than 12' high, it has pinnate leaves composed of several broad leaflets, that are flushed pink as they emerge. Also suited for dappled shade are the **licualas**, of which *Licuala grandis* is particularly noteworthy for its large, almost circular, pleated, apple green leaves. Each leaf is held almost horizontal on a 3' petiole. The spiny licuala (*L. spinosa*) can take much more full sun providing the soil remains moist. The leaves are circular but split into broad segments and the petiole longer and armed with sharp teeth for its entire length.

As we transition to sites with more full sun exposure there are further understory palms suited to these conditions, including clumping specimens such as the familiar **areca/butterfly palm** (*Dypsis lutescens*) and the underused **dwarf sugar palm** (*Arenga tremula*). Areca palms are easy to establish and find frequent use in Miami-Dade as a tall screen. All too often they become far from attractive, developing into congested clumps, the leaves turning orangey yellow then brown. The latter is a sure sign of a deficiency of potassium – in south Florida areca palms must have regular applications of a complete slow release palm fertilizer (N/P/K, 8-2-12). Congested clumps can be thinned out but stems must be cut as close to ground level as possible. Leaving a stump increases the risk of *Ganoderma zonatum* (fungus causing ganoderma butt rot) becoming established and spreading to remaining stems within the clump. Selective thinning of clumps will improve their appearance by revealing more stem detail (ring scars) but becomes especially risky if ganoderma has previously been found on palms in the landscape.

The **dwarf sugar palm** also accepts part shade to full sun and is a good if more expensive substitute for areca palms as a screen. Compared to areca palms, clumps do not become as congested as those of areca palms and there are fewer nutritional problems. However dwarf sugar palm is not as drought tolerant and the fruits produce severe skin irritation due to the presence of crystals of calcium oxalate. This is a property shared with fishtail palms (*Caryota*) to which it is related, and like these palms each stem flowers and sets fruit once then dies (moncarpic). If you are an aficionado of colorful palms the **red leaf palm** (*Chambreyonia macrocarpa*) like the two above palms is also a denizen of humid tropical forests but can accept full sun. A feather palm (pinnate leaves) growing to about 20' locally, it features new leaves that emerge bright red. In

contrast to previous colorful palms, the red leaf palm is readily available in south Florida and while requiring some shade at first (neighboring medium size shrubs) it can accept full sun as it matures.

A small (4-6') native palm found in open pineland, the familiar **saw palmetto** (*Serenoa repens*) is tolerant of full sun, drought and salt laden winds. This is a slow growing clumping palm with a prostrate stem and palmate leaves borne on petioles having sawtooth margins. This latter feature makes this an effective barrier plant, especially in gardens featuring Florida native plants. As a specimen palm in a small yard the blue/green form (**silver saw palmetto**) is especially attractive. There are many other small native palms for full sun situations that truly deserve the description durable. All you need is patience since most are very slow growing.

Very slow growth and expense (compared to other native palms) are the only possible reasons **buccaneer/Sargent's cherry palm** (*Pseudophoenix sargentii*) is not more widely used in Miami-Dade landscapes. It is well suited to local limestone rock soils, salt and drought tolerant (once established) and free of pest and disease problems. Provide a free draining site situated in full sun/slight shade. A solitary feather palm, buccaneer palm will eventually grow to about 10', with a smooth, grey, variably swollen trunk, arching twisted pinnate leaves, ranging from dark green to a more silvery green. The two thatch palms, *Thrinax morrissii* (**Key thatch**) and *T. radiata* (**Florida thatch**) are also well adapted to limestone rock and excellent choices for full sun, ocean front gardens. Both of these native fan palms are slow growing to about 20', with leaf blades partially split into numerous segments (bent in *T. morrissi*, drooping tips in *T. radiata*). On *T. morrissi* the undersides of the leaves are silvery white. *Coccothrinax argentata* (**silver palm**) is another small (at most 15') Florida native fan palm where the underside of the leaf possesses an attractive silvery sheen. The leaves are also divided into numerous distinct segments, but differ from *Thrinax* in that the tip of each segment is split. As with the previous native palms the silver palm is drought and salt tolerant and can be situated in full sun.

Coccothrinax occur predominantly in Cuba and there are three small specimens that make excellent choices for full sun exposure in a small Miami-Dade yard. The slow growing **old man palm** (*C. crinata*) at 12- 15' is highly prized for the distinctive appearance of even young specimens. The leaves are dark green, almost circular, segmented and large (5'blade) for the size of the palm. Most striking is the apparent girth of the trunk which in actuality is quite slender, the stocky appearance being due to a thick wooly covering of brown fibers (the old man's beard). This is a slow growing palm that again is ideal for coastal situations, though not quite as drought tolerant as the *C. argentata*. The old man palm is much in demand, and though expensive less so than the **borhidis guano palm** (*C. borhidiana*) regarded by most local palm enthusiasts as even more striking. This is an 8-10' very slow growing palm, restricted to a few coastal limestone outcrops on Cuba's north coast where it is almost extinct. The trunk is slender but covered for its entire length with a thick skirt of old leaves/leaf bases, the crown dense and composed of almost circular leaves held close to the trunk on short petioles. The leaves are smaller than *C. crinata*, stiff, dark green and not as prominently segmented.

Two somewhat faster growing and less expensive *Coccothrinax* are available locally. The Cuban **miraguama palm** (*C. miraguama*) grows to 20' with a slender grayish trunk variably covered with matted fibers. The leaves are smaller than the above *Coccothrinax*, rigid, dark green with the undersides silvery grey. A species from the Dominican Republic, *C. spinassa* (**guano**) is an example of what is referred to as a belly palm, mature palms having trunks with a distinctly swollen mid section. This particular palm grows to about 15' with silvery palmate leaves.

A familiar small feather palm with a conspicuously swollen trunk is the 12' **bottle palm** (*Hyophorbe lagenicaulis*), which is widely available in Miami-Dade. It develops a greatly swollen base to the trunk tapering as it joins the waxy green crownshaft. The canopy consists of arching grayish green leaves. Adapting to full sun or part shade, bottle palm tolerates sun but should be watered during prolonged dry weather and receive regular applications of fertilizer to prevent potassium deficiency. The related spindle palm (*H. verschaffeltii*) is another palm suitable for small yards. It grows to 20' with a handsome, stout trunk but is unfortunately somewhat susceptible to lethal yellowing.

Another outstanding group of Cuban palms are the copernicias, of which the **Cuban petticoat palm** (*Copernicia macroglossa*) makes a wonderful specimen palm for a small yard, growing locally to 15 – 20'. This fan palm lacks a crownshaft, but has a distinctive canopy of wedge shaped leaves that are partially split into about 60 segments and appear to grow in a spiral pattern directly out of the trunk. Old leaves remain attached, providing the 'petticoat' that clothes the upper part of the trunk (sometimes the whole trunk is left fully shagged, or all old leaves can be completely removed). Be careful when removing old fronds, since the leaf margins bear scattered spines.

If you don't mind truly spiny palms (well they are more difficult to steal!), the **chocho palm** (*Astrocaryum mexicanum*) grows to about 8 - 15' with the trunk covered in black spines. The broad pinnate leaves are most attractive, dark green with a silvery underside - the petiole and rachis are also armed with spines. Best when grown in enriched moist soil (mulch) with light shade or full sun (if regularly watered). Far more familiar is the **pygmy date palm**, *Phoenix roebelinii*, which grows locally to about 10'. This is a solitary palm, but nurseries often offer containers with multiple specimens. Very popular in south Florida landscapes for its graceful feathery foliage, adaptability to small spaces and ability to tolerate either partial shade or full sun. To prevent nutritional problems (manganese, potassium and magnesium) apply a slow release palm special fertilizer on a regular basis. The pygmy date palm is not self cleaning so when you remove dead fronds do so with great care – the petiole is armed with prominent sharp spines.

Now all you have to do is choose one of these wonderful palms and dig a hole or two.