



**A Guide to Planting an African-American/African Focused
Yard in Miami-Dade County:**

**A Selection of African Palms and Cycads Suitable for the Miami-Dade
Landscape**

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There are a few hardy palms that will grow in those southeastern U.S. states studied by Westmacott¹ in his survey of rural African American yards, most being found in milder coastal sections. Only two palms (dwarf palmetto and sabal palm) were found in African-American yards, but these were all in South Carolina. Elsewhere in the survey area, palms were not a significant feature of traditional African-American yards. As residents of south Florida, there is a far greater range of palm species from which to choose so it is not surprising that palms have become such an important feature of the Miami-Dade landscape.

Whilst Africa has fewer indigenous palms, as compared to S. America or Asia, some of the most popular palms grown in Miami-Dade are native to Africa. Of these most are from Madagascar², where 167 different species in 13 genera have been recorded as indigenous, with all but two species endemic. This translates into 99% of all palm species found on Madagascar being native, a situation found nowhere else in the world.

The palms selected below are generally available in south Florida, though some may be easier to find in local nurseries that specialize in growing palms. The following color code is used as a guide to availability: less commonly available plants are shown in **light blue**, whilst those that should be easiest to find are printed in **violet**. The remaining plants are available locally, though not necessarily at the majority of retail outlets. Local plant society plant or seed sales/auctions may offer some of the rarer plant specimens. For information on the installation and care of palms refer to your local Extension Office. One important consideration in choosing palms for use in Miami-Dade is susceptibility to lethal yellowing disease. Unfortunately many of the African palms that are grown as ornamentals in Miami-Dade are susceptible, to varying degrees, to this fatal disease. There is no effective long-term cure for lethal yellowing, which is present in many parts of the county. Any risk from this disease is noted for each palm discussed.

Bismarckia nobilis (Bismarck palm) This most desirable large fan palm comes from the dry savannah of N.W. Madagascar and can grow to 60', developing a heavy, sturdy trunk. The massive fronds, up to 10' in length, are usually bluish-green and covered in a waxy bloom. Although initially slow growing, once a discernable trunk develops the rate of growth increases. The palm is well adapted to Miami-Dade, preferring a site in full sun and is not as susceptible to nutritional problems as other non-native palms. It is indifferent as to soil, and drought tolerant once established. In view of their ultimate size, bismarckias should be limited to only the largest lots. There is only one serious potential problem pest, the palmetto weevil, and the risk of attack is lessened if the palm is not stressed, in particular this includes not removing fronds before they are totally dead. Palm leaf skeletonizer caterpillars sometime disfigure leaves,

¹ Return to the previous menu and select 'Resources and Links' for further information on Westmacott's survey.

² Madagascar is a large island nation in the Indian Ocean, 400 miles from the mainland of southern Africa (Mozambique). Some other palms in this list are from the Mascarene Islands, of which Mauritius is best known, and these are situated approximately 1250 miles east of the southern African coast. The islands' native flora is very similar to that found in east Africa.

turning them brown. Lethal yellowing is not known at present to affect bismarckias.

Borassus aethiopium (**African palmyra or ron palm**). An impressive fan palm from savanna areas of Africa, resembling a sabal palm but larger (to 90'), with a heavy sturdy trunk and large fan shaped leaves. Like the sabal palm, the trunk is often covered with old leaf bases. Although *B. aethiopium* is initially slow growing, the rate of growth increases with trunk development. In its native range it is widely used locally in construction (lumber and thatching), medicinally and as a source of food and wine. This has drastically reduced natural stands of this rather slow growing palm. Choose an area with full sun and free draining soil. Once established, this is a drought tolerant palm, less liable to develop nutritional problems than many other non-native palms. In view of its large size this is a palm that should be restricted to large lots. The related *B. flabelifer* is recorded as being susceptible to lethal yellowing, but there appears to be no specific information on *B. aethiopium*. There is also a species from Madagascar, *B. madagascariensis*, but it is not readily available in Miami-Dade.

Dictyosperma album (**Hurricane palm**) An attractive palm native to the Mascarene Islands⁹, growing to 30', with a grayish trunk, somewhat swollen at the base, displaying prominent leaf scars. The fronds are deep green, each with many long, narrow, pointed leaflets. Each new frond is held upright, tightly furled, appearing lance-like before the individual leaflets are revealed. Although claimed to be resistant to strong winds (hence the common name), the hurricane palm should not be exposed to drying winds, which can cause leaves to burn. Choose a site in full sun, and water during extended periods of hot, dry weather. This palm is moderately susceptible to lethal yellowing disease.

Dypsis spp. (**Areca, cabada, lucubensis, triangle and teddy bear palms**) Palms of this genus are all from Madagascar where they are found in rainforest or beside freshwater. *D. lutescens*, the areca or butterfly palm, is one of the most frequently used palms in south Florida landscapes. It should not be confused with palms of the genus *Areca*, members of which are found from S.E. Asia to the tropical western Pacific. *D. lutescens* is a clustering palm, developing multiple trunks, with fronds curved and leaflets forming a V along the rachis. Often used as an informal hedge, it commonly grows to about 15', though it can grow to as much as 20' if it is not grown under crowded conditions. Looks best when the multiple stems do not become crowded – carefully thin out so that detail of the trunk is visible.

The triangle palm (*Dypsis decaryi*) is immediately recognizable from the triangular arrangement of the leaf bases where the somewhat upright, stiff fronds emerge from a short trunk. Below, the three-sided placement of old leaf scars reinforces the impression of a triangular trunk. Although not a particularly large palm (20-25' at most), the distinctive form makes the triangle palm a prominent feature of any landscape. This palm is known to be susceptible to lethal yellowing. The teddy bear palm (*Dypsis leptocheilos*) has fronds similar in appearance to the triangle palm, but somewhat more erect. The trunk and

crownshaft are more distinctive; the latter in particular is covered with attractive reddish brown wooly hairs present on old leaf stem bases. *D. lastelliana* is a related less commonly seen palm, much slower growing with a darker crownshaft, and is often mistaken for the more common teddy bear palm.

The next two species are seen far less often. The cabada palm (*D. cabadae*) is a slower growing but larger relative of the areca palm that is less inclined to form clusters. The fronds are less curved, and the leaflets planar as compared to the areca. The trunk is especially striking with prominent ringed, off-white leaf scars. One potential problem is a slight susceptibility to lethal yellowing disease. *D. lucubensis* (the lucubensis palm) produces only a single trunk, again with prominent leaf scars. The fronds have leaflets arranged in more than one plane along the rachis giving them a feathery appearance. In some descriptions the lucubensis palm is referred to as *D. madagascariensis* var. *lucubensis*.)

For all above *Dypsis* spp. choose a site with full sun to occasional shade, and free draining soil, supplying supplemental water during an extended dry spell. Since these palms can be prone to developing symptoms of potassium deficiency, apply a complete palm special fertilizer on a regular basis.

***Elaeis guineensis* (African oil palm)** Native to humid areas of west and central Africa, this is the world's most commercially important palm species after the coconut palm. However, it also makes a most impressive landscape specimen, growing to 40' in south Florida though more than 50' in its native habitat. The tall, sturdy trunk and full, impressive crown, composed of large feathery fronds, make this palm more suitable for large lots. Choose a site in full sun, and provide supplemental water during a prolonged dry spell. This palm is not known to be susceptible to lethal yellowing.

***Hyophorbe* spp. (Bottle and spindle palms).** Native to the Mascarene Islands⁹, these small, slow growing palms are most appreciated for the curiosity of their swollen trunks. *H. lagenicaulis*, the bottle palm, develops a greatly swollen base to the trunk, which then tapers to where it joins the long attractive crownshaft. The canopy is sparse, but pleasing, consisting of a few stiffly arching fronds. The spindle palm, *H. verschaffeltii*, has a uniformly stout trunk, slightly more swollen in the middle. The prominent olive green crownshaft is swollen at the base where it joins the trunk, then narrows toward the leaf bases. The canopy is heavier than the bottle palm, the individual fronds arching but not quite so large. These are diminutive palms well suited to smaller yards, the bottle palm (growing to 12') in particular is an ideal specimen palm where space is limited. The spindle palm (to 20') can be planted in short rows where there is need for a bold but not overpowering feature. Both of these palms require full sun and tolerate heat and salt, however they will need supplemental water during prolonged dry periods. They also require regular applications of a complete palm fertilizer to avoid deficiency symptoms marring the appearance of the foliage. The spindle palm is slightly susceptible to lethal yellowing disease.

***Hyphaene* spp. (Doum palms)** A group of slow growing fan palms from hot, arid/semi-arid areas of north, central and east Africa occurring where there is

nearby surface or available groundwater. Both clustering and solitary species are found, but of most interest is the branching of the trunk that occurs well above ground, a unique feature as far as most palms are concerned. The fronds bear a resemblance to the sabal palm, and can vary from bright green to blue/green, however beware of the sharp curved spines found on the margins of the petiole (leaf stem). The trunk retains old leaf bases, which gradually fall away. These are dioecious palms (separate male and female plant), so fruit develops only on female specimens that have been pollinated. In the wild they sometimes form dense stands, and are often found near water courses (rivers, streams) or desert oases where they can develop very deep root systems.

Several doum palms are occasionally encountered in cultivation, but these are palms that are difficult to propagate, require care in transplanting, and are therefore quite expensive. Apart from their striking form, doum palms offer other desirable features: they are well adapted to full sun, drought and salt, and not particular as to soil (providing it is free draining). They are also less prone to nutritional problems than many other palms, and appear not to be susceptible to lethal yellowing.

Sometimes there is confusion over the naming of *Hyphaene* spp. found in nurseries. *Hyphaene thebaica*, the **African doum** or **gingerbread palm** (so called because the edible fleshy mesocarp of the fruit has a taste likened to gingerbread), is found throughout N. Africa (particularly the Nile valley) and arid areas of east Africa. It can grow up to 40' with a single or multiple branching trunks. *Hyphaene coriacea* (**ilala palm**) is the southern most species found in Africa and grows to 25', the trunk branches by forking in a single plane, and can develop suckers from the base. These are more liable to form when stems become decumbent (prostrate). This palm often develops a shrubby appearance. *Hyphaene compressa* (**East African doum palm**) has a more upright appearance and more pronounced branching, and is found in dry coastal grasslands south from Ethiopia. Doum palms are widely utilized in certain parts of Africa as a source of food (fruit), timber, thatching material and beverage (fermented sap). This latter practice eventually kills the palm.

Latania spp. (**Latan palms**) A group of attractive fan palms native to sheltered coastal locations of the Mascarene Islands⁹, where they are almost extinct. Widely cultivated however in other tropical areas of the world, they are naturally adapted to a climate having a humid wet summer, and a long dry spell. Slow growing to about 30', latan palms have light brown trunks that often flare out at the base. The large, stiff, fan-shaped leaves are blue green to grayish green on mature palms, covered with a white waxy deposit. When young, the several species that are used as ornamentals have distinctive foliage: blue latan (*Latania loddigesii*) has bluish petioles and leaf veins; red latan (*Latania lontaroides*) petiole tinted red and reddish leaf veins; yellow latan (*Latania verschaffeltii*) yellowish red petioles. These differences become far less apparent as the palms mature. These are all drought tolerant palms that should be planted in full sun. Two serious drawbacks limit the usefulness of these palms at present: susceptibility to lethal yellowing disease, and attack from the palmetto weevil both of which are usually fatal. Extreme caution is in order when considering

these palms in areas, such as many parts of Miami-Dade, where lethal yellowing is present.

Phoenix spp. (**Date palms**³) Native to Old World tropics/sub-tropics, with several species that are indigenous to Africa. The **edible date palm** (*P. dactylifera*) is believed to have originated in N. Africa, though it is widely found from Morocco west to Pakistan. Apart from the appeal of the edible fruit, *P. dactylifera* makes an imposing ornamental palm, especially when used as an avenue tree. This is essentially a desert palm, and is therefore not as well adapted to the humid climate of south Florida as other date palm species, and rarely produces quality fruit. In addition it is moderately susceptible to lethal yellowing disease.

The **Senegal date** (*P. reclinata*) is a clustering palm found in tropical areas of Africa where it grows to 30', and is sometimes seen in Miami-Dade landscapes. The multiple stems are mostly covered with fiber and old leaf scars, while the curved pinnate fronds are divided into many dark green leaflets, the petioles armed with many short spines. In Africa the fruit is sometimes consumed, but is not as highly esteemed as *P. dactylifera*, and the stem tapped for wine production. This palm should be grown in full sun, and since it suckers aggressively will require space, unless it is regularly thinned. It is drought tolerant once established, and apart from disfigured fronds due to the palm leaf skeletonizer, has no serious insect problems. *P. reclinata* is also susceptible to lethal yellowing disease, as well as ganoderma butt rot, sufficient reason to be circumspect when recommending this palm for Miami-Dade. In addition it has been listed as a potentially invasive plant in Florida.

Ravena rivularis (**Majesty palm**) This palm is native to tropical rainforest areas of Madagascar, where it has almost become extinct. It has however become a popular ornamental palm, particularly for interiorscapes. This is initially quite a fast growing palm and develops an attractive trunk, flared at the base then gradually tapering to where the foliage emerges. The fronds are arching with a quarter twist and composed of many thin, long leaflets. As a landscape item, the majesty palm requires plenty of fertilizer and supplemental water, especially if it is grown in the open. It is better situated where there is some partial shade, at least through the hottest part of the afternoon. There is some confusion regarding the exact nature of the palm offered in the trade – it has been suggested by one authority that this may well be *R. glauca*.

Cycads

Cycads are an ancient group of cone bearing plants, which along with *Podocarpus* spp., ginkgos, and coniferous trees (e.g. pines) are classed as gymnosperms. Male and female cones (sometimes referred to as pollen and seed

³ For further information see the publication 'Phoenix palms for South Florida' available from the Miami-Dade Extension Office.

cones respectively) are borne on separate plants (dioecious). In some species the cones are large and conspicuously colored, adding to the impact they make on the landscape (it is not possible to determine the sex of a plant until it produces cones). The principal appeal of cycads is their striking form, many having stout trunks and an attractive plume of foliage that can be light and feathery, or stiff and palm like. Some have a fern like appearance whilst larger growing species are often mistaken as palms (e.g. “sago palms”). As a group, cycads are slow growing (a fact that contributes to them being comparatively expensive), but are of increasing interest as landscaping items. Their attractive foliage formal appearance is especially amenable to use in modern landscape architecture, where various species find use as both accent and specimen plants.

In general they prefer soil that is on the dry side, and require exceptional drainage – for poorly draining sites consider planting on a berm. They differ with regard to how much sun they require. Some take full sun, desert like conditions, and others partial shade and less heat. All but two African cycad species (*Cycas thouarsii* and *Stangeria eriopus*) belong to the genus *Encephalartos*, which is endemic to Africa. Most readily available in South Florida are *E. ferox* and *E. gratus*, both of which are well adapted to local growing conditions. Cycads in the genus *Cycas*, such as the popular king and queen sago “palms”, are susceptible to a serious insect pest, the auscalapis cycad scale, which can kill plants if left untreated. None of the *Encephalartos* spp. are affected by this scale.

Encephalartos ferox (**Zululand cycad**) This striking cycad is found growing in open coastal woodland/scrub of northern South Africa into southern Mozambique. Most of the plant stem is below ground, with at most 1-3’ of visible trunk, from which are produced arching fronds, spiny near the base and up to 6’ long. The shiny green, holly-like leaflets have broad teeth along the margins. Most notable are the bright orange to scarlet cones produced from the top of the trunk, or within the whorl of leaves. As many as five cones, up to 20” in height, are produced on female plants, with male plants producing about the same number of slightly smaller, but much thinner cones. The bright red seeds are relished by a variety of wild animals for their edible outer fleshy covering, though the poisonous kernel is not consumed. Although *E. ferox* can be grown in full sun if first acclimatized, it is adapted to areas where there is partial shade, and will be more likely to succeed under such conditions. Supplemental water should be provided during times of drought, especially where shade is absent.

Two other species from South Africa, *E.natalensis* (**Natal cycad**) and *E. altensteinii* (**prickly or Eastern Cape giant cycad**), can be found in cultivation in South Florida, but are less common. Both are sturdy plants growing to 15-18’, with yellow cones and rigid, bright green, 10’ fronds.

Encephalartos gratus is found in open areas (gorges, steep slopes) of deciduous woodland from N.W. Mozambique into adjacent areas of Malawi. It is more palm-like in appearance than *E. ferox*, with a much stouter trunk (to 6’ in height), and a denser plume of fronds. The brown cones are less colorful than those of *E. ferox*, though many more male cones are produced (up to 15). This species is adapted to full sun, and is more drought tolerant than *E. ferox*. It is available locally in Miami-Dade. *E. hildebrandtii* is found in the seasonally dry

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coastal savannah of Kenya and Tanzania, where it can grow to 18', with bright green fronds to 7-8'. Leaflets are at first fuzzy, becoming shiny with at least 3 teeth on each margin and spines on the tip. Cones are yellow. This species is fairly common, compared to the cycads listed below, and is also highly adapted to South Florida.

Several other *Encephalartos* spp., from more tropical areas of Africa, are particularly well adapted to conditions in Miami-Dade. These, however, are difficult to find and are very expensive. It is much cheaper to grow from seed if you are able to find a source (local palm and cycad societies sometimes auction off available seed), and have the patience to wait for the plant to mature.

E. turneri is an extremely rare and expensive species found in Mozambique, and grows to 12' with yellow cones and 4-5' fronds with thick glossy green leaflets.

E. tegulaneus (**Kenyan giant cycad**) This species is found in Kenya where it grows to 30', with 3-6' straight stiff fronds with blue/green leaflets; cones are green to yellow.

E. kisambo (**Voi cycad**) A smaller species, with an 8' trunk, is also from Kenya, but further south where it is found on steep open wooded hillsides. The fronds are shiny, green with teeth only on the upper margin of each leaflet. Cones are yellow, with male cones on a long stalk.

There are two species from central Africa that are seen (rarely) in cultivation: *E. whitelockii*, from Uganda, grows to 12' with stiff dark green 9-12' fronds, and yellow/green cones, the male cones hanging on a stalk. *Encephalartos ituriensis* is found in open grassland of N.E. Zaire, and is larger (18') with stiff glossy green fronds. The margin of each leaflet is toothed, with the tip carrying a single spine. Cones are green to brown.

E. laurentianus is confined to a small area on the border of Angola and Zaire where it grows on the steep banks of the Kwango River. This is a tall cycad, growing to 45', with long fronds to 18' having thin gray/green leaflets. Cones are yellow, with male cones held on a long stalk. According to at least one author, *E. laurentianus* "is the largest and most majestic of the living cycads."

Encephalartos senticosus is native to the Lebombo Mountains of South Africa and adjacent Swaziland, and for many years was known as *E. lebomboensis*. The plant often forms clumps, and individual trunks can reach 13 feet tall. Leaves are dark glossy green, reach 6' in length and are erect and curved somewhat backward and downward at the apex. Cones are a dusty orange color, and the seeds bright orange.