

# The Arikury Palm

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The arikury palm, native in the state of Bahia, Brazil, has been in cultivation for a number of years yet it is not common in Florida or elsewhere. Those who are familiar with this palm seem divided in their opinion on its merits. It is true that it lacks the nobleness of a royal palm, the graceful beauty of a queen palm, and the sleekness of a solitaire palm. But it does have its own type of beauty and gracefulness. The seeds germinate readily, its culture is not difficult, the plants flower and fruit at an early age, and most important, it is a dwarf species adaptable to planting in small yards. For these reasons it deserves considerably more attention than it has heretofore received.

Technically it is known as *Arikuryroba schizophylla* (Mart.) L. H. Bailey. The name *Arikuryroba* is a Brazilian Indian vernacular name and *schizophylla* means "split leaf." Originally the species was placed in the genus *Cocos* by Martius in 1826 as *C. schizophylla*. Barbosa Rodrigues placed it in a new genus, *Arikuryroba*, in 1891 but called it *A. Capanemae*. Beccari, in 1916, recognized the latter as being the same as Martius' species, *C. schizophylla*, but he shortened Barbosa's name to *Arikury*. In 1930, Bailey transferred the epithet to *Arikuryroba* where it now stands.

The common name is arikury palm. Dahlgren lists twelve other names, mostly Brazilian and representing variations of spelling and pronunciation of *Arikury*. According to Blatter, the leaflets are made into hats and the juice of the unripe fruit is used for treating in-

flammation of the eyes. The fruits are edible and are said to be found sometimes in the local markets in Brazil.

The arikury palm is not mentioned by early writers on palms of Florida—Nehrling, Dahlgren, and Simpson—nor by later writers such as Jordahn and Loomis. It was not included in the first University of Florida bulletin on palms ("Native and Exotic Palms of Florida," *University of Florida Agricultural Experiment Station Bulletin 184*. 1926) but was included in the 1931 and later editions of this bulletin. Blatter, in *Palms of British India and Ceylon* (1926), has a short description as well as a photograph of *Cocos schizophylla* on page 531. L. H. Bailey listed synonyms and gave the history of nomenclature for the species in *Gentes Herbarum* 2:195-199, 1930. He also included a photograph of the plant growing at the Atkins Garden, Soledad (Cienfuegos), Cuba, and a photograph of a cluster of fruit and an inflorescence, both from plants growing in the Botanic Gardens, Georgetown, British Guiana.

The United States Department of Agriculture does not appear to have offered plants for distribution, although there have been several introductions listed in the USDA Plant Inventory. The first, as *Cocos schizophylla*, was in 1913 when seeds were collected by Dorsett and Popenoe in Bahia, Brazil. In the 1930's seeds were sent from the Atkins Garden on five occasions (P.I. 88107, 90897, 91755, 101131, 105727). Plants growing at the USDA Plant Introduction Garden in Miami at the pres-

ent time result from P.I. 101131 received in 1934. In the same year, Dr. Fairchild sent seeds from the Botanic Gardens in British Guiana (P.I. 104681).

According to Dr. Duncan Clement, the first arikury palms grown at the Atkins Garden were from seeds obtained from the Royal Palm Nursery in Oneco, Florida in 1918 or 1919 and the USDA introductions mentioned above were from these plants.

It is probable that Reasoner's Royal Palm Nursery was the first to introduce and to cultivate this palm in Florida, perhaps in the early 1900's or more likely between 1910 and 1915. The source of the material is unknown, but plants or seeds from this nursery were distributed to botanical gardens and nurseries in Florida and Cuba. The original plants for the late Col. Robert Montgomery's collection in Coconut Grove were obtained from Royal Palm Nursery in 1932 (as *Areca Aliciae*). Mr. Ray Vernon, Superintendent of the collection, states that these plants were fairly large when they were obtained, indicating that they may have been ten to fifteen years old. The Sub-Tropical Experiment Station in Homestead also obtained its original plants from the Royal Palm Nursery in 1933. Seeds and plants have been distributed by the Station since 1948. The Fairchild Tropical Garden also distributed plants in 1949 and 1954. The Garden's specimens, originally obtained from the Montgomery collection, were planted out in 1938.

#### CULTURE

Plants at the Sub-Tropical Experiment Station produce fruit in the fall months, usually in September or October, but in some years as early as August and in other years as late as December. Fresh seeds, after the fleshy pulp has been removed, are planted in a loose

mixture of half vermiculite and half peat moss. The seeds will germinate in two to three weeks. After several months when seedlings are four to six inches high, they are potted in individual containers. When two to three years old and about two feet high, they can be planted in the ground.

Being a dwarf palm, the arikury can be grown in a large pot as a tub specimen. In England, where this palm was introduced in 1846, it has been used as a pot plant in greenhouses and conservatories. The species is well adapted to landscape use. It can be planted in the border among other plants, giving it a space about six feet in diameter for the leaf spread, or it can be used as an accent plant or planted next to the house with smaller shrubs in front. Partial shade, especially under a large spreading tree, provides the best condition for growth but plants will tolerate full sun. *Arikuryroba* is considered a tropical plant. In Florida, therefore, it is limited to the southern part of the state which is free of prolonged cold spells. Old plants have been invaded by a fungus at Fairchild Tropical Garden (*Principes* 1:65. 1957) which would indicate perhaps that the palm may be rather short-lived. Frequent fertilizing and watering during the winter and spring dry months will encourage faster growth. Old leaves should be cut off as close to the trunk as possible when they die.

#### DESCRIPTION

The stem of *Arikuryroba schizophylla* is solitary, reaching 5 or 6 feet with age. The trunk is slender, 6-8 inches in diameter, tapering upwards because of an accumulation of leaf bases which stand erect and are dark purple-black in color. The crown is large, rather dense, of numerous pinnate leaves 4-8 feet long and 3 feet wide which eventually are gracefully arching. The petiole, which is 2-3 feet long, is flat above and rounded



Fig. 42. A 20-year-old specimen of *Arikuryroba schizophylla* growing in the United States Plant Introduction Garden at Chapman Field, Coconut Grove, Florida. Photograph by Harold F. Loomis.



Fig. 43. A young tree of *Arikuryoba schizophylla* six and one-half years after planting out at the Sub-Tropical Experiment Station, Homestead, Florida. Photograph by John C. Noonan.

below, colored dark purple-black especially on the margins. Somewhat weak but nevertheless sharp, upward-curving spines  $\frac{1}{4}$ - $\frac{1}{2}$  inch long are produced along both margins of the upper part of the petiole, these becoming smaller and further apart or absent toward the blade. The rachis is round below with a prominent elongated pointed ridge above.

Forty pairs or more of thick and somewhat stiff dark green pinnae to 24 inches long and  $1\frac{1}{2}$  inches wide are linear in shape but usually taper toward the apex. The latter is long-pointed with an asymmetrical tip because of the way in which the pinnae unfold. This tip eventually breaks off leaving the apex truncate. The midrib is prominent above with isolated elongated tufts of brownish membranous scales beneath. Several lateral veins are somewhat obscure below. Juvenile leaves of young plants have terminal lobes 4-6 inches wide which split to the middle or below. The lower and older leaves fall by rotting away and breaking off near the base of the petiole leaving the basal part (1 foot or more) which may remain

attached to the stem for many years. The leaf sheath is a brown papery structure to 12 inches long which becomes twisted or curled inward on the upper part. Sheaths persist on the trunk thus adding to the shaggy condition.

Flowers appear in winter or early spring, sometimes as early as December but usually from February to March and when plants are only 3-4 years old. The inflorescence, which is shorter than the leaves, is produced from axils of lower leaves, usually 3 appearing at the same time. The spathe is double. An outer one only 6-8 inches long, 2-pointed at the apex and split on one side, does not emerge from the leaf axil and is, therefore, mostly hidden. The inner spathe, which opens on the ventral side, is 2-3 feet long and 3-4 inches wide, prominently grooved or ridged on the outside, pale yellow-orange and with yellowish-brown scales that rub off. The spadix is as long as the outer spathe, emerging from it about in the middle, and is 2-3 feet long, 8-10 inches wide. Erect at first, the compressed peduncle gradually becomes pendant in fruit. It consists of many ascending branches about  $\frac{3}{4}$  inch apart and 4-10 inches long which are dull yellow-cream or yellow-orange with scattered dark-colored scalelike hairs.

The flowers are sessile, slightly fragrant, dimorphic, unisexual. Female flowers are relatively few in number (4-16) on the lower part of the branches. Male flowers are very numerous and tightly clustered on the upper two-thirds of the branches but also a few are scattered among the female flowers, usually 1-2 adjacent to each female flower. The male flowers are  $\frac{3}{8}$  inch in diameter with spreading perianth parts, the 3 very small sepals  $\frac{1}{32}$  inch long or less, the 3 dull yellow-orange, thick petals linear or oblong, acute  $\frac{1}{4}$  inch long and  $\frac{1}{16}$  inch wide. Stamens are 6 in num-

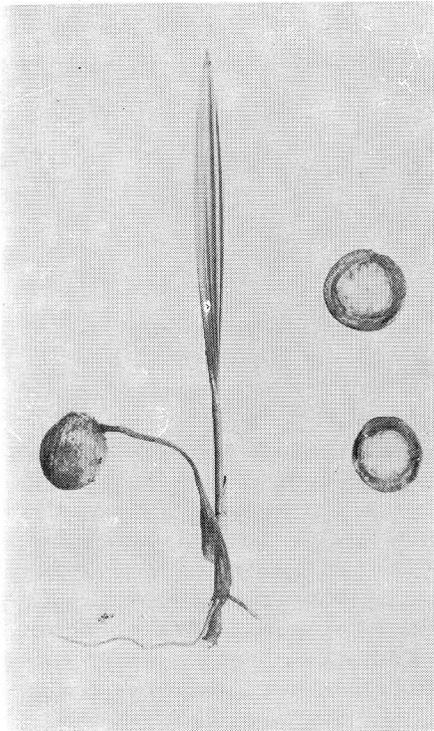


Fig. 44. Fruit of arikury palm in cross section (right) showing the fleshy exocarp, hard endocarp, and ruminant endosperm and seedling (left) still attached to the seed by the germinal cord. Photo by John C. Noonan.

ber, free and spreading, the filaments and anthers each to  $\frac{1}{8}$  inch long, the anthers linear and versatile. The abortive pistil has 3 spreading styles. Much larger female flowers are  $\frac{1}{4}$  inch long, ovate or ovoid or shortly conical with the perianth appressed and imbricated around the ovary. The 3 sepals and 3 petals are broadly triangular, similar in size and shape, each to  $\frac{3}{16}$  inch long and wide, acute, the sepals thick, the petals thinner and more papery. Staminal nodes are united in a low, minutely toothed ring. The 1-celled ovary is subglobose with 3 erect appressed styles.

Fruit matures in the fall months, September to December, the fruiting clusters generally bearing numerous

fruits in grapelike clusters. Each fruit is  $\frac{3}{4}$  to slightly over 1 inch wide, ellipsoid or almost globular but generally a little longer than wide, bright orange-yellow when ripe, with a cupular perianth at the base. The outer fruit coats are fleshy, fibrous, juicy, and with an apricot flavor; the endocarp is hard and bony with 3 germinating pores near the basal end. The seed, with hard solid ruminant white endosperm, fills the cavity of the endocarp and the seed coats are papery. In germinating, the germinal cord grows downward 2-3 inches into the soil and will lift the seed off the ground or out of the potting medium. Root and plumule emerge from the basal portion of this structure.

Flower and fruit characteristics are typical of the cocoid group of palms where it belongs in the tribe Attaleeae of the subfamily Cocoideae. *Arikuryroba* is thus related to *Cocos*, *Butia*, *Arecastrum*, *Attalea*, and *Jubaea*.

### EDITOR'S CORNER

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is said to have planted it on July 2, 1769, the day after his arrival in San Diego. Eighty feet high, the Serra palm succumbed at last to a fungus infection and had to be removed. The trunk will be stored in sections in Balboa Park.

The second report, sent to Mrs. Wait by Walter Hodge, is reprinted in full from Los Angeles.

#### PALM FRONDS SUFFOCATE MAN

LOS ANGELES, Dec. 10 (AP)—A man trimming a palm tree in a cemetery was suffocated when a mass of palm fronds slipped down the trunk of the tree and completely enveloped him.

The body of Melchor Vargas, 30, was found yesterday 40 feet up the tree under a huge circle of fronds that had been loosened by his trimming and had slipped down some six feet.

Vargas, father of six children, was still fastened in his safety belt. Investigators said the fronds, weighing several hundred pounds, had pinioned his arms. He apparently had been dead for several hours.