

A desert tree for all needs

The date palm is food, medicine, provides construction materials, various tools and even furniture

BY FRANCIS GACHATHI

The date palm (*Phoenix dactylifera*), also known as tamar or tamarah in Hebrew, is mentioned more than 40 times in the Bible, right from the very first book of Genesis all the way to Revelation. The numerous, frequent and wide-spread references to the date palm in the Holy Scriptures are a testimony to its significance in the lives of the ancient Israelites.

In Biblical days, the Promised Land, the land flowing with milk and honey (Exodus 3:8), was dotted with dense groves of date palms providing excellent landmarks. "And the Lord showed Moses all the land ... the Negeb (desert) and the Plain, that is, the valley of Jericho, the city of palm trees." (Deuteronomy 34: 1-3).

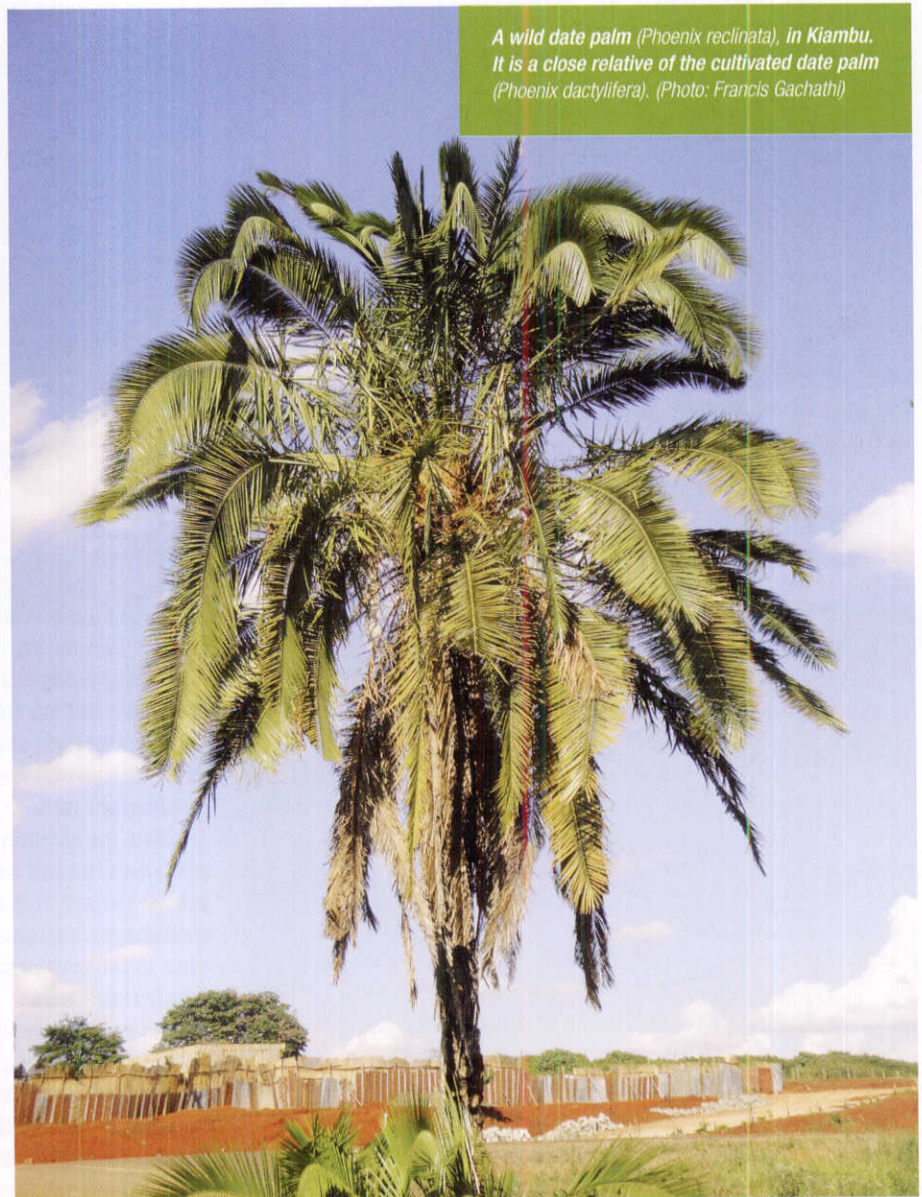
Naturally, the date palm - that is, the palm tree that produces dates - was found in desert oases. The specific epithet "dactylifera" is from Greek, meaning, "date-bearing".

Dates are delicious and very nutritious honey-sweet fruits with very high sugar content, which provided ready and much-needed energy to the Israelites in the desert during their flight from Egypt across the Sinai to the Promised Land. "Then they came to Elim, where there were twelve springs of water and seventy palm trees; and they encamped there by the water." (Exodus 15:27).

Date palms satisfied almost every need of the Israelites. The people ate the dates for food and used them as medication to restore health; they drank the juices straight for refreshment or fermented them into wine. The Israelites used the stem for construction; leaves were used to make temporary shelters, baskets, mats, brooms, beds, ropes, dishes, roofs, fences and various tools and items of furniture. Kernels were soaked in water and used to feed camels, sheep, goats and cows.

Women made necklaces and bracelets from dried kernels. The coarse fibres were used for donkey saddles, while the unwanted parts of the palm provided fuel. The date palm was a source of everything the Israelites required and became central to their tradition and culture. It symbolised prosperity, fertility and victory. "The righteous flourish like the palm tree, and grow like cedar in Lebanon. They still bring forth fruit in old age." (Psalms 92:12-14).

The date palm's structure was widely



A wild date palm (*Phoenix reclinata*), in Kiambu. It is a close relative of the cultivated date palm (*Phoenix dactylifera*). (Photo: Francis Gachathi)

employed as a model for ornamentation in utensils and architecture. It was prominent in the decoration of King Solomon's temple. Figures of palm trees were carved on the walls (1 Kings 6:29). "And on the doors of the nave were carved cherubim and palm trees, such as were carved on the walls." (Ezekiel 41:25). The columns supporting the temples were modelled after the date palm, the tops of the columns made to look like the crown of the date palm tree.

Because of the graceful terminal crown of the date palm, it became symbolic of grace and elegance to the Jews, and the name of the tree, tamar, was often bestowed to a beautiful woman in allusion to the graceful upright carriage. It was quite a compliment to be named after the date palm!

"And Judah took a wife for Er his first-born, and her name was Tamar." (Genesis 38: 6). "Now Absalom, David's son, had a beautiful sister,

whose name was Tamar.” (2 Samuel 13:1). “There were born to Absalom three sons, and one daughter whose name was Tamar; she was a beautiful woman.” (2 Samuel 14:27). Even today Tamar, Tamara or Tamarah are popular as girls’ names among the Jewish people.

In John 12:13, Jesus is welcomed to Jerusalem by a large crowd with branches of palm trees crying “Hosanna! Blessed is he who comes in the name of the Lord, even the King of Israel!”

Christians have kept the tradition alive around the world as Palm Sunday, the Sunday before Easter, which commemorates Christ’s triumphal entry into Jerusalem. Another Holy Land tradition retained by Christians is attending funerals while bearing palm fronds.

The date palm has, for thousands of years, provided the dwellers of the hot dry deserts of the world with one of their most important foods. It is among the three palms with world-wide economic importance. The other two are the coconut palm, *Cocos nucifera* and the oil palm, *Elaeis guineensis* of West Africa, which is also indigenous to Kenya.

Some the best date-growing countries are Morocco, Algeria, Tunisia, Libya, Israel, Egypt, Iraq, Iran and Saudi Arabia. The tree’s cultivation is restricted by its particular environmental requirements of high temperatures, low humidity, scant rain and a long, hot, completely dry period during flowering and fruit formation. It is said to do best in arid areas between 24° and 34° N.

Iraq and Iran supply the bulk of the world demand for dates. The fruit is also cultivated in southern California and in Arizona State, whose capital city is Phoenix.

In Kenya, date palms are grown in arid and semi-arid areas as well as the coastal region, both for ornamental and fruit production purposes. Date palms are found in Lamu, Garissa, Taveta, Isiolo, Wajir, Moyale, Turkwel River plains near Lodwar, Makindu and Kitui.

The tree, known locally as mtende, is mostly propagated through suckers. The fruit is known as tende in Swahili. However, date palms rarely fruit well in Kenya and most of the dates sold in Kenya are imported.

Like most palms, the date palm has an unbranched straight trunk up to 24 metres high, covered with old leaf bases and crowned with immense spreading leaves over 3 metres long, with sharply pointed leaflets. Numerous offshoots are produced at the base of the trunk.

The date palm is dioecious, that is, there are separate male and female trees, although they look alike. The males produce pollen needed to fertilise female date palms flowers. One male



Below: Dates, the fruits of the date palm (*Phoenix dactylifera*), and above, dates their seeds. (Photo: Francis Gachathi)



tree can fertilise as many as 50 female trees but the pollen may not be ready at the best time for pollination.

The date palm often requires artificial pollination to produce normally developed fruits. In addition to pollen production, male date palms are tapped and the sweet juice that exudes is drunk for refreshment.

The female trees bear the fruits, called the dates, which appear in large, hanging bunches. They are about 5 x 2cm, bright yellow to reddish-brown; with one large seed that has a longitudinal furrow. The trees start bearing fruit when about six or seven years, attaining maturity at the age of 30, and will continue producing hundreds of kilograms of dates annually for over 100 years. The date palm is one of the greatest producers of

food per hectare.

The tree is presumed to be native to north-eastern Africa and the Arabian Peninsula and may have been cultivated for over 6,000 years especially in ancient Mesopotamia (modern Iraq).

Its close relative, *Phoenix reclinata*, known as wild date palm, is found throughout tropical Africa and is indigenous to Kenya. Its local names include meti (Boran); oltukai (Maasai) and mkindu (Swahili). It has many uses similar to those of the date palm but the fruits are inferior. It is largely grown as ornamental. Its leaves are commonly used to make mats and baskets.

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