

CO'CONUT', or **CO'COANUT'** (Fr. *coco*, Gk. *κοῦκι*, *kouki*, cocoa tree, from anc. Egypt. *kuku*, cocoa tree). The well-known fruit of a species of palm (*Cocos nucifera*), perhaps originally a native of the Indian coasts and South Sea islands, although there is evidence of its prehistoric occurrence on the west coast of Central and South America. (For illustration, see Plate of PALMS.) It is now diffused over all tropical regions. The coconut palm belongs to a genus having pinnate leaves, and staminate and pistillate flowers on the same tree, the latter flowers at the base of each spadix. There are about 35 known species, nearly all of which are natives of South America. Many of the species prefer dry and somewhat elevated districts. The

coconut palm, on the contrary, is seldom found at any considerable distance from the seacoast, except where it has been introduced by man, and generally succeeds best in sandy soil near the sea. It is always one of the first of the larger plants to establish itself in the low islands of the Pacific Ocean, as soon as there is soil enough. It has a cylindrical stem, about a foot in diameter, and from 60 to 100 feet high, with many rings marking the place of former leaves, and bearing at its summit a crown of from 16 to 20 leaves, which generally curve downward, and are from 12 to 20 feet in length, with numerous leaflets, 2 to 3 feet long. The flowers proceed from within a large pointed spathe; the fruit grows in short racemes, which bear, in favorable situations, from 5 to 15 nuts; and 10 or 12 of these racemes in different stages may be seen at once on a tree, about 80 or 100 nuts being its ordinary annual yield. The tree bears fruit in from 4 to 8 years from the time of planting, and continues productive for 70 or 80 years. Of the three round, black scars at one end of the shell, the largest one through which an opening is commonly made to get out the *milk* is the destined outlet of the germinating embryo, which is situated there, the kernel consisting generally of the endosperm destined for its nourishment. The thick husk is remarkably adapted to the preservation of the seed, while the nut is tossed about by the waves, until it reaches some shore far distant from that on which it grew.

The coconut affords to the inhabitants of many tropical coasts and islands a great part of their food; it is not only eaten as it comes from the tree, both ripe and unripe, being filled in a young state with a pleasant, milky fluid, but is also prepared in a variety of ways, as in curries, etc.

The kernel of the coconut contains more than 70 per cent of a fixed oil, called coconut oil, or coconut butter. The oil is itself an important article of commerce, being much employed for the manufacture of "stearin candles," and also of a "marine soap" which forms a lather with sea water. It is also employed as an article of food, so long as it remains free from rancidity—to which, however, it is very liable. It is obtained by pressure of the bruised kernel, or by boiling over a slow fire, and skimming off the oil as it floats on the surface. A quart, it is said, may be obtained from seven or eight coconuts. It is liquid at the ordinary temperature of tropical countries, but in colder climates becomes a white, solid, butter-like oil. It becomes liquid about 74° F. It can be separated by compression into a liquid portion called "olein," and a more solid part termed "stearin," or "cocosin," which is of complex constitution. The cake resulting from the pressure of the endosperm for its oil is an important cattle food. The dried kernel, known as copra, forms an important article of export from the South Sea islands, etc.

The root of the coconut palm possesses narcotic properties, and is sometimes chewed instead of the areca nut. When the stem is young, its central part is sweet and edible; but when old, this is a mass of hard fibre. The terminal bud (palm cabbage) is esteemed a delicacy, and trees are often cut down for the sake of it. The saccharine sap of the flower spathes before they open is a source of toddy and palm wine, and by distillation the liquor

arrack. In the East Indies the juice is often boiled down to yield sugar (jaggery).

The dried leaves of the coconut palm are much used for thatch, and for many other purposes, as the making of mats, screens, baskets, etc., by plaiting the leaflets. The midribs of the leaves supply the natives of tropical coasts with oars. The wood of the lower part of the stem is very hard, takes a beautiful polish, and is employed for a great variety of purposes under the name of porcupine wood. The fibrous centre of old stems is made into cordage. By far the most important fibrous product of the coconut tree is coir (q.v.), the fibre of the husk of the somewhat immature nut. If the nuts are allowed to ripen, the coir is coarser and more brittle. The husk of the ripe nut is used for fuel, and also, when cut across, for polishing furniture, scrubbing floors, etc. The shell of the coconut is made into cups, goblets, ladles, etc., and is often finely polished and elaborately ornamented by carving.

Cocos butyracea, one of the South American species of this genus, is a very large tree, and its nut abounds in an oil and butter of similar quality to that obtained from the coconut. The double coconut of the Seychelles Islands is the fruit of a palm of a different genus (*Lodoicea callipyge*). *Cocos weddelliana* is the species most commonly cultivated in greenhouses and in the open as an ornamental. For illustration, see PALM.