

Information about the Environment and for travellers in Crete:

The “Cola tree” – (*Cola acuminata*) (Extremely rarely on Crete)



Cola trees are a plant genus in the subfamily Sterculioidae within the mallow family (Malaceae). It is native in Africa; on Crete it is to be seen extremely rare. So far we found it only a few times and excluding only in old monastic yards and – gardens.

Cola species grow as branched trees and can become high up to 15 – 20 m. The sheets are long petiolate (up to 20 cm), elliptical to oblong ovate and can become broad to 10 cm. They are leathery tough, entire and sometimes slashed. The partial hermaphrodite blooms are located in many-flowered panicle. The out of five yellowish, veined, up to 3 cm long, oval lance-shaped sepals existing “perianth” originates from the culm of the petals. The calyx is on the ground connate to a cup. The anthers of the male blooms are allied to a gynandrium. The female blooms possess an upper-constant, five fan ovary, with five mounting papillose cicatrices and ten basilar stamina with short filaments. The plant develops one to five follicles, which spread apart themselves during the matureness. These pointing downward, oblong oval fruits can



become up to 12 cm long. They have a wavy-roundish surface. Each fruit has two to six, 4 to 5 cm long and about 3 cm thick, laterally flattened, oval-conical seeds. The mature, brown seed husk is parchment-like thin and bald. It possesses two large, fleshy and reddish to green-white cotyledons inside.



The seeds of the Cola tree act as a tonic and were used, in former times, as flavour enhancer for Cola beverages, which however is now uncommon; thus they were used only originally for the production of “Coca-Cola“. It is asserted that fruits of other Cola tree species are edible; e.g. in West Africa the seeds are “chewed”.

The main active agents are up to 3.5% caffeine and theobromine. Thus the caffeine content is clearly over that of the coffee. In addition are present: catechin, epicatechin as well as tannins and up to 45% starch, proteins, sugars, fat and mineral materials. Impacts are among other things a digestion-assisting and pain-satisfying effect.

Fruits of *Cola acuminata* and *C. nitida*
 Picture source: <http://www.garten.uni-rostock.de/forschung>