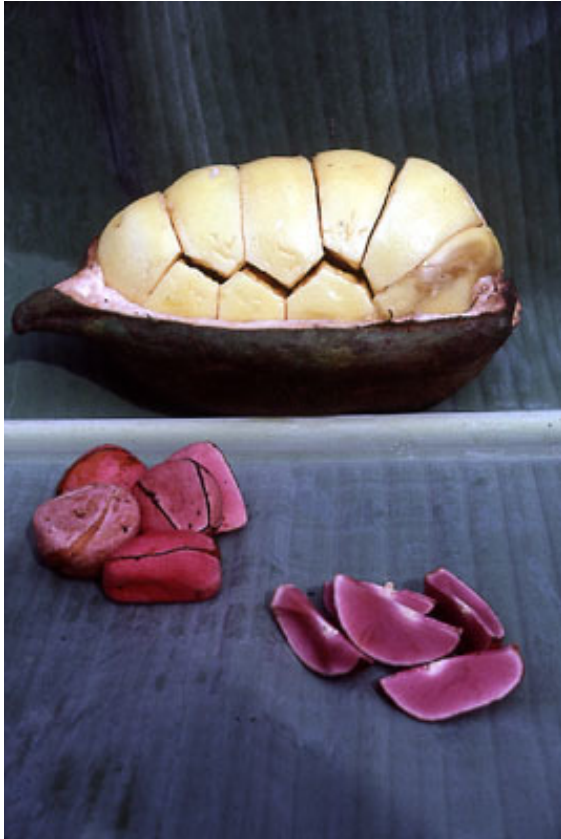


Kola nut



Kola nut – pod (with seeds inside their white testa), and seeds (whole without testa and split into cotyledons).

The **kola nut** is the fruit of the **kola tree**, a genus (*Cola*) of trees that are native to the tropical rainforests of Africa. The caffeine-containing fruit of the tree is used as a flavoring ingredient in beverages, and is the origin of the term "cola".

1 General description

The Kola nut is a caffeine-containing nut of evergreen trees of the genus *Cola*, primarily of the species *Cola acuminata* and *Cola nitida*.^[1] *Cola acuminata*, an evergreen tree about 20 metres in height, has long, ovoid leaves pointed at both the ends with a leathery texture. The trees have yellow flowers with purple spots, and star-shaped fruit. Inside the fruit, about a dozen round or square seeds develop in a white seed-shell. The nut's aroma is sweet and rose-like. The first taste is bitter, but it sweetens upon chewing. The nut can be boiled to extract the cola. This tree reaches 25 meters in height and



Cola acuminata

is propagated through seeds. *C. nitida* and *C. acuminata* can easily be interchanged with other *Cola* species.

Kola nuts comprise about 2% caffeine, as well as containing kolanin and theobromine. All three chemicals function as stimulants.^[2]

2 Uses

The kola nut has a bitter flavor and contains caffeine. It is chewed in many West African cultures, individually or in a group setting. It is often used ceremonially, presented to chiefs or presented to guests.^[3]

Kola nuts are perhaps best known to Western culture as a flavoring ingredient and one of the sources of caffeine in cola and other similarly flavored beverages, although the use of kola (or kola flavoring) in commercial cola drinks has become uncommon.^[4]

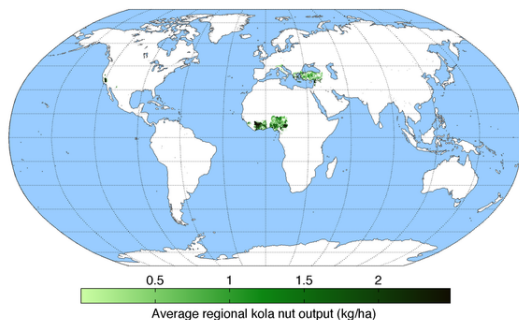
3 History

Human use of the kola nut, like the *coffee berry* and *tea leaf*, appears to have ancient origins. It is chewed in many West African cultures, individually or in a social setting, to restore vitality and ease hunger pangs.

Kola nuts are an important part of the traditional spiritual practice of culture and religion in West Africa, particularly Niger and Nigeria.^[5] The 1970s hit “Goro City”, by *Manu Dibango*, highlights the significance of kola nuts (called “goro” in the Hausa language) to the capital of Niger, Niamey. Kola nuts are used as a religious object and sacred offering during prayers, ancestor veneration, and significant life events, such as naming ceremonies, weddings, and funerals. They are also used in a traditional divination system called Obi divination. For this use, only kola nuts divided into four lobes are suitable. They are cast upon a special wooden board and the resulting patterns are read by a trained diviner.^[6] This ancient practice is currently enjoying increased growth within the United States and Caribbean.

There are a number of competing theories about the origin of Coca-Cola. One account holds that in the 1800s, a pharmacist in Georgia, *John Pemberton*, took extracts of kola and coca and mixed them with sugar, other ingredients, and carbonated water to invent the first cola soft drink. His accountant tasted it and called it “Coca-Cola”. The current recipe is a jealously guarded trade secret; it is unknown whether kola nut is still used in Coca-Cola, however the recipe continues to use “de-cocainized” coca extract.^{[7][8]}

4 Cultivation



Worldwide kola nut yield

Originally a tree of tropical rainforest, it needs a hot humid climate, but can withstand a dry season on sites with a high ground water level. It may be cultivated in drier areas where ground water is available. *C. nitida* is a shade bearer, but develops a better spreading crown which yields more fruits in open places. Though it is a lowland forest tree, it has been found at altitudes over 300

m on deep, rich soils under heavy and evenly distributed rainfall.

Regular weeding is a must and can either be done manually or by using herbicides. Some irrigation can be provided to the plants, but it is important to remove the water through an effective drainage system, as excess water may prove to be detrimental for the growth of the plant. When not grown in adequate shade, the kola nut plant responds well to fertilizers. Usually, the plants need to be provided with windbreaks to protect them from strong gales.

Kola nuts can be harvested mechanically or by hand, by plucking them at the tree branch. When kept in a cool, dry place, kola nuts can be stored for a long time.

4.1 Pests and diseases

The nuts are subject to attack by the kola weevil *Balanogastis cola*. The larvae of the moth *Characoma strictigrapta* that also attacks cacao bore into the nuts. Traders sometimes apply an extract of the bark of *Rauvolfia vomitoria* or the pulverised fruits of *Xylopia* and *Capsicum* to counteract the attack on nursery plants. The cacao pests *Sahlbergella* spp. have been found also on *C. nitida* as an alternative host plant. While seeds are liable to worm attack, the wood is subject to borer attack.

5 Chemical composition

- caffeine (2–3.5%)
- theobromine (1.0–2.5%)
- theophylline
- phenolics
 - phlobaphens (*kola red*)
 - epicatechin
 - D-catechin
 - tannic acid
- sugar
 - cellulose
- water

6 References in culture

A kola nut ceremony is briefly described in Chinua Achebe's 1959 novel *Things Fall Apart*. The eating of kola nuts is referred to at least a further ten times in the novel showing the significance of the kola nut in pre-colonial 1890s Nigerian culture.

The kola nut is also mentioned in *The Color Purple* by Alice Walker, although it is misspelled “cola”.

The kola nut is mentioned in Bloc Party’s song “Where is Home?” off of the album *Weekend in the City*. The lyric, setting a post-funeral scene for the murder of a black boy in London, reads; “After the funeral, breaking kola nuts, we sit and reminisce about the past.”

7 Notes

- [1] Burdock, G. A.; Carabin, I. G.; Crincoli, C. M. (2009). “Safety Assessment of Kola Nut Extract as a Food Ingredient”. *Food and Chemical Toxicology* **47** (8): 1725–32. doi:10.1016/j.fct.2009.04.019. PMID 19394393.
- [2] Erbe, Lawrence (2014). “Cola”. *Encyclopedia Americana* (Grolier Online).
- [3] “Kola Nut”. *Igbo insight guide to Enugu and Igboland’s Culture and Language*. igboguide.org.
- [4] *the recipe of Cola*. thisamericanlife.org <http://www.thisamericanlife.org/radio-archives/episode/427/original-recipe/recipe>. Missing or empty |title= (help)
- [5] Aina Adewale-Somadhi (2004). *Practitioner’s Handbook for the IFA Professional*. Ile Orunmila Communications. p. 1. ISBN 978-0971494930.
- [6] Epega, A. A. (2003). *Obi Divination*. Athelia Henrietta Press. pp. 1–2. ISBN 978-1890157340.
- [7] <http://www.snopes.com/cokelore/formula.asp>
- [8] <http://www.nytimes.com/1988/07/01/business/how-coca-cola-obtains-its-coca.html>

8 References

- Jarvis, G. (May 21, 2002). “The Rise and Fall of Cocaine Cola”. LewRockwell.com.
- Kim, Katherine, (2001). *Encyclopedia of Alternative Medicine*
- Mariama Bâ, "So Long a Letter"

9 External links

- *Cola* in West African plants – A Photo Guide.

10 Text and image sources, contributors, and licenses

10.1 Text

- **Kola nut** *Source:* https://en.wikipedia.org/wiki/Kola_nut?oldid=679596704 *Contributors:* Derek Ross, The Anome, Malcolm Farmer, Jdpipe, Heron, Olivier, Edward, Patrick, Palnatoke, Logotu, Magnus.de, Fibonacci, Wernher, PuzzletChung, Robbot, Kristof vt, David Gerard, DocWatson42, MPF, Zigger, Everyking, Quackor, Beland, JoJan, Arsene, CaribDigita, Maximamax, GeoGreg, Drano, El C, Hesperian, Keenan Pepper, Egg, Sleigh, Ikescs, Robert K S, SDC, BruceLee, SMC, Heah, Avocado, Lebha, Eubot, Srleffler, Frappyjohn, Gdrbot, YurikBot, Icarus3, Paphrag, Anomalocaris, Grafen, Thatoneguy, Asarelah, Graham Jones, SMCandlish, BorgQueen, CWenger, Cjfsyntropy, Erik Sandberg, SmackBot, Brya, Gilliam, Skizzik, Rkitko, Jprg1966, Al Pereira, Berton, Melburnian, Hibernian, Viperphantom, Michalchik, SHP~enwiki, Poobslag, U-571, Karakal, Joelmills, Syrcatbot, Dicklyon, Meco, Marcipangris, Iridescent, JMK, Dockingman, Eastlaw, Rcollman, Lavateraguy, Picaroon, TempestSA, Cydebot, A876, Scooteristi, Gimmetrow, TonyTheTiger, Sagaciousuk, Sobreira, Marco Schmidt, Leuqarte, Lanilsson, Sluzzelin, JAnDbot, Albany NY, Rick.Wicks, Magioladitis, PacificBoy, Murgh, Think outside the box, IP Singh, 28421u2232nfencenc, Nono64, Yellowfiver, LPLT, Idioma-bot, Lear's Fool, Ann Stouter, Una Smith, Dronir, Andy Dingley, Jaguarlaser, Pijuvvy, WereSpielChequers, Sophos II, Hojoondlee, Flyer22, Throquat, HerbertCombs, Shoombooly, Adam Cuerden, Atif.t2, ClueBot, Hatcher, Ron Delipski, Eeekster, ParisianBlade, Dthomsen8, Yehosef216, Sgpsaros, Good Olfactory, Getsnoopy, Addbot, Willking1979, Darwin-rover, Sjn ca, Keepcalmandcarryon, Tide rolls, Lightbot, Nguyễn Thanh Quang, AlexJFox, SasiSasi, Laikayiu, Legobot, Yobot, TaBOT-zerem, AnomieBOT, Nutriveg, Piano non troppo, Kingpin13, Materialschemist, Limideen, LilHelpa, Xqbot, Termininja, Gigemag76, Mononomic, Omnipaedista, RibotBOT, Hamamelis, Darwinius, Cargoking, Craig Pemberton, Iholiday, Winterst, Thermalite, Pinethicket, I dream of horses, Dark Lord of the Sith, Obsidian Soul, RjwilmsiBot, Jack Schlederer, Lucid-eye, Pjposullivan, Az29, Tmatt009, Tommy2010, AndrewJMT, Jacjr56, RoseoftheWorld, Anir1uph, Ὁ οἶστρος, Erianna, Lokpest, Orange Suede Sofa, ClueBot NG, Smtchahal, Rathersilly, Hardwords, Guaráwolf, Metricopolus, CitationCleanerBot, NotWith, Minsbot, Shisha-Tom, Calum112, Wood Geek, Topbanana9, RikSchuiling, Mr. Guye, SteenthIWbot, Kevin12xd, Passengerpigeon, Eyesnore, Bracecurly, Heart2heartjennifer, HoorayCookies and Anonymous: 232

10.2 Images

- **File:Koeh-190.jpg** *Source:* https://upload.wikimedia.org/wikipedia/commons/9/91/Cola_acuminata_-_K%C3%B6hler%E2%80%93s_Medizinal-Pflanzen-190.jpg *License:* Public domain *Contributors:* List of Koehler Images *Original artist:* Franz Eugen Köhler, Köhler's Medizinal-Pflanzen
- **File:Kolanut.jpg** *Source:* <https://upload.wikimedia.org/wikipedia/commons/d/d6/Kolanut.jpg> *License:* Attribution *Contributors:* Own work,from Bandundu Region (Democratic Republic of Congo) *Original artist:* Bob Walker (uploaded by en>User:Paphrag)
- **File:KolanutYield.png** *Source:* <https://upload.wikimedia.org/wikipedia/commons/d/df/KolanutYield.png> *License:* CC BY-SA 3.0 *Contributors:* Own work *Original artist:* AndrewMT

10.3 Content license

- Creative Commons Attribution-Share Alike 3.0