

Manilkara zapota

Manilkara zapota, commonly known as the **sapodilla** (/ˌsæpəˈdɪlə/),^[1] is a long-lived, evergreen tree native to southern Mexico, Central America and the Caribbean.^[2] An example natural occurrence is in coastal Yucatán in the Petenes mangroves ecoregion, where it is a subdominant plant species.^[3] It was introduced to the Philippines during Spanish colonization. It is grown in large quantities in India, Thailand, Malaysia, Cambodia, Indonesia, Bangladesh and Mexico.

The name “zapota” ultimately derives from the Nahuatl word *tzapotl* /ˈt͡sapot͡ɪ/ by way of the Spanish *zapote* [θaˈpote].

1 Description

Sapodilla can grow to more than 30 m (98 ft) tall with an average trunk diameter of 1.5 m (4.9 ft). The average height of cultivated specimens, however, is usually between 9 and 15 m (30 and 49 ft) with a trunk diameter not exceeding 50 cm (20 in).^[4] It is wind-resistant and the bark is rich in a white, gummy latex called chicle. The ornamental leaves are medium green and glossy. They are alternate, elliptic to ovate, 7–15 cm long, with an entire margin. The white flowers are inconspicuous and bell-like, with a six-lobed corolla. An unripe fruit has a firm outer skin and when picked, releases white chicle from its stem. A fully ripened fruit has saggy skin and does not release chicle when picked.

The fruit is a large ellipsoid berry, normally 4–8 but up to 15 cm in diameter, containing two to five seeds. Inside, its flesh ranges from a pale yellow to an earthy brown color with a grainy texture akin to that of a well-ripened pear. The seeds are black and resemble beans, with a hook at one end that can catch in the throat if swallowed.

The fruit has an exceptionally sweet, malty flavor. The unripe fruit is hard to the touch and contains high amounts of saponin, which has astringent properties similar to tannin, drying out the mouth.

The trees can only survive in warm, typically tropical environments, dying easily if the temperature drops below freezing. From germination, the sapodilla tree will usually take anywhere from five to eight years to bear fruit. The sapodilla trees yield fruit twice a year, though flowering may continue year round.

2 Other names

Sapodilla is known as *mispel* in the Virgin Islands^[1] and Dutch Caribbean, *zapote* in Honduras, *níspero* in Dominican Republic, El Salvador, Costa Rica, Cuba, Guyana, Puerto Rico, Nicaragua, Panama, Colombia and Venezuela, *dilly* in the Bahamas, *naseberry* in Jamaica and other parts of the Caribbean, *sapoti* in Brazil (Portuguese pronunciation: [səpuˈtʃi]) and Haiti, *chico* in the Philippines and *chicosapote* or *chicozapote* in Mexico, Hawaii, southern California and southern Florida.^{[5][6]}

It is known as *chikoo* (*chiku*, "चीकू") in Northern India, ("چیکو" *chiku* and "ਚੀਕੂ" in Punjab) and *sapota* in some parts of India ("ಸಪೋಟಾ" in Karnataka, "సపోటా" in Andhra Pradesh, "സപോട്ട" in Kerala, "சப்போட்டா" in Tamil Nadu), *sapathilla* or *rata-mi* in Sri Lanka, *sobeda/sofeda* (সবদো or সফদো) in eastern India and Bangladesh, *sabudheli* ("سَبْدھَلِي") in Maldives, *sawo* in Indonesia and *saos* in West Sumatra, *hồng xiêm* (lit. Siamese persimmon), *lông mít* or *xa pô chê* in Vietnam, *lamoot* (ලමුත්) in Thailand, Laos and (ភ្នំពេញ) in Cambodia.

It is called *ciku* in standard Malay and *sawo nilo* in Kelantanese Malay. In Chinese, the name is mistakenly translated by many people roughly as “ginseng fruit” (人參果), though this is also the name used for the pepino, an unrelated fruit; it should instead be “heart fruit” (心果) because it is shaped like the heart.

3 Biological studies

Compounds extracted from the leaves showed anti-diabetic, antioxidant and hypocholesterolemic (cholesterol-lowering) effects in rats.^[7]

Acetone extracts of the seeds exhibited considerable anti-bacterial effects against strains of *Pseudomonas oleovorans* and *Vibrio cholerae*.^[8]

4 Synonyms

Synonyms of this species include:^[9]

- *Achradelphia mammosa* (L.) O.F.Cook
- *Achras breviloba* (Gilly) Lundell
- *Achras calderonii* (Gilly) Lundell

- *Achras conzattii* (Gilly) Lundell
- *Achras coriacea* Lundell
- *Achras cosaguico* La Llave
- *Achras dactylina* Lundell
- *Achras gaumeri* (Gilly) Lundell
- *Achras latiloba* Lundell
- *Achras lobulata* (Lundell) Lundell
- *Achras lucuma* Blanco
- *Achras mammosa* L. nom. illeg.
- *Achras meridionalis* (Gilly) Lundell
- *Achras occidentalis* Cels ex Ten.
- *Achras paludosa* Lundell
- *Achras petenensis* (Lundell) Lundell
- *Achras rojasii* (Gilly) Lundell
- *Achras sapatilla* J.Paul & W.Arnold
- *Achras sapota* f. *asperma* M.Gómez
- *Achras sapota* var. *candollei* Pierre
- *Achras sapota* var. *globosa* Stokes
- *Achras sapota* var. *lobata* (A.DC.) Pierre
- *Achras sapota* var. *ovalis* Stokes
- *Achras sapota* var. *pedicellaris* Pierre
- *Achras sapota* var. *sphaerica* (A.DC.) Pierre
- *Achras striata* (Gilly) Lundell
- *Achras tabogaensis* (Gilly) Lundell
- *Achras tainteriana* Lundell
- *Achras tchicomame* Perr.
- *Achras verrucosa* Stokes
- *Achras zapota* L.
- *Achras zapota* var. *major* Jacq.
- *Achras zapota* var. *zapotilla* Jacq.
- *Achras zapotilla* (Jacq.) Nutt.
- *Calocarpum mammosum* (L.) Pierre
- *Calospermum mammosum* (L.) Pierre
- *Gambeya mammosa* (L.) Pierre
- *Lucuma mammosa* (L.) C.F.Gaertn.
- *Lucuma zapota* (L.) Urb.
- *Lucuma zapota* var. *anguai* Rojas Acosta
- *Manilkara achras* (Mill.) Fosberg
- *Manilkara breviloba* Gilly
- *Manilkara calderonii* Gilly
- *Manilkara conzattii* Gilly
- *Manilkara gaumeri* Gilly
- *Manilkara grisebachii* (Pierre) Dubard
- *Manilkara meridionalis* Gilly
- *Manilkara rojasii* Gilly
- *Manilkara sapota* (L.) Van Royen
- *Manilkara striata* Gilly
- *Manilkara tabogaensis* Gilly
- *Manilkara zapotilla* (Jacq.) Gilly
- *Manilkariopsis lobulata* Lundell
- *Manilkariopsis meridionalis* (Gilly) Lundell
- *Manilkariopsis petenensis* Lundell
- *Manilkariopsis rojasii* (Gilly) Lundell
- *Manilkariopsis striata* (Gilly) Lundell
- *Manilkariopsis tabogaensis* (Gilly) Lundell
- *Mimusops grisebachii* Pierre
- *Nispero achras* (Mill.) Aubrév.
- *Pouteria mammosa* (L.) Cronquist
- *Sapota achras* Mill.
- *Sapota zapotilla* (Jacq.) Coville ex Safford
- *Vitellaria mammosa* (L.) Radlk.

5 See also

- Sapote

6 References

- [1] Morton, J. (1987). "Sapodilla". In Julia F. Morton. *Fruits of Warm Climates*. Florida Flair Books, Miami, FL. pp. 393–398.
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- [4] *Manilkara zapota* Sapotaceae (L.) van Royen, Orwa C, Mutua A , Kindt R , Jamnadas R, Simons A. 2009. Agroforestry Database: a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/af/treedb/>)
- [5] “Sapodilla Fruit Facts”, *California Rare Fruit Growers*. Retrieved on 2009/03/26
- [6] “Ten Tropical Fruits of Potential Value for Crop Diversification in Hawaii”, *College of Tropical Agriculture and Human Resources*. Retrieved on 2009/03/26
- [7] Fayek NM, Monem AR, Mossa MY, Meselhy MR, Shazly AH (2012). “Chemical and biological study of *Manilkara zapota* (L.) Van Royen leaves (Sapotaceae) cultivated in Egypt.”. *Pharmacognosy Res.* **4** (2): 85–91. doi:10.4103/0974-8490.94723. PMID 22518080.
- [8] Kothari V, Seshadri S (2010). “In vitro antibacterial activity in seed extracts of *Manilkara zapota*, *Anona squamosa*, and *Tamarindus indica*.”. *Biol Res.* **43** (2): 165–8. doi:10.4067/S0716-97602010000200003. PMID 21031260.
- [9] “The Plant List”.

7 External links

- CRFG Publications: Sapodilla
- Sapodilla

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