# *Pouteria sapota* (Jacq.) H.E. Moore & Stearn

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## SAPOTACEAE (SAPODILLA FAMILY)

*No synonyms*

Mamey, mamey colorado, zapote mamey

*Pouteria sapota* is native to America. The precise area of its natural distribution is unknown because the species has been introduced and cultivated throughout tropical America since pre-Hispanic times. It grows from Mexico through Central America, to northern South America and in the West Indies.

*Pouteria sapota* is a deciduous tree that can reach 40 m in height and 80 cm d.b.h. The trunk is straight and sometimes has spurs. The pyramidal crown is made up of horizontal, separated branches. The leaves are simple, alternate, gathered on the tips of the branches, obovate or oblanceolate, sometimes slightly curved, 10 to 50 cm long, and 7.5 to 16 cm wide. In the Yucatan Peninsula, the tree grows in calcareous soils with outcropping rocks, forming part of the tropical forest. The plant prefers sandy-loamy, deep, and fertile soils. The regions where the tree grows have an average annual temperature of 26 °C, with a maximum temperature of 36.7 °C and a minimum temperature of 14.9 °C. The maximum temperatures correspond to the months of April and May, the minimum temperatures to the months of December and January. Average annual precipitation is approximately 1299 mm, ranging between 900 and 1800 mm.

*Pouteria sapota* produces one of the most delicious fruits in the tropics. It is eaten raw and is used in jams, drinks, and ice creams. The oil contained in the seeds is used to treat dandruff and to stimulate hair growth. The strong, hard, and compact wood is used in rural construction and for firewood, stakes, boards, beams, and furniture. The tree is frequently cultivated in backyards (Aguilar 1966, Barrera 1981, Chavelas and González 1985, Flores 1993, Hoyos 1979, Miranda 1976, Rico-Gray and others 1991).

The tree blooms August through October and fruits December through March (Pennington and Sarukhan 1968). The fruits are often seen in the markets during April and May (Martínez 1959). The flowers are white to greenish-cream, almost sessile, and gathered at the axils of the fallen leaves. The trees begin to yield fruits at 8 to 10 years (Kennard and Winters 1960, Miranda 1976). The fruits are globose or ovoid berries, up to 20 cm long, 7.0 to 12 cm in diameter, reddish brown when ripe, and pulpy, with a thick and rough peel and a red-orange or pink pulp; the pulp has a sweet and pleasant taste. Each fruit normally contains one seed (Pennington and Sarukhan 1968). Seeds are ellipsoid to ellipsoid-ovate, acute on the tips, terete in cross section or slightly flattened laterally, 8 to 10 cm long, and 3 to 6 cm wide. The seedcoat ranges in color from brown to black; is smooth, shiny, and osseous; and has a lateral, long, and large hilum scar that is white to yellowish cream in color and occupies part of the body of the seed.

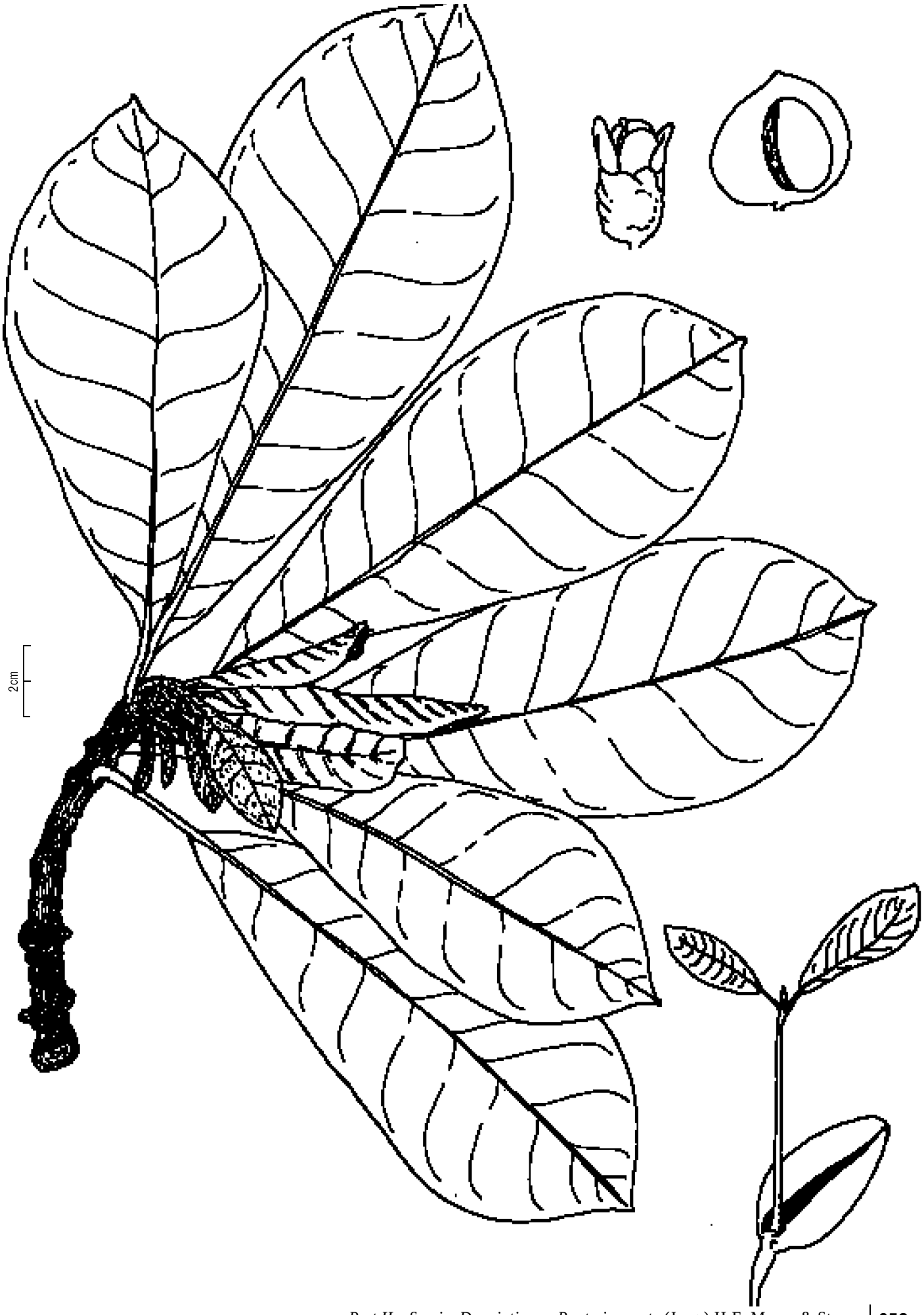
The way to gather fruits depends on the size of the tree. If the tree is short, the fruits are gathered from the ground, using wooden poles with metal hooks. If the tree is tall, gatherers must climb to its crown. The pulp is removed from the pulpy fruits by hand inside a bucket of water. Resulting impurities float and are gathered with a strainer. Good seeds sink. Subsequently, the seeds are dried in the sun in ventilated places for 1 or 2 hours, depending on the lighting conditions.

This tropical species is easily propagated from its seeds, which sometimes germinate inside the fruit. Removing the testa before sowing shortens germination time. Germination is cryptocotylar, and the growth of the plantule is slow. The seeds are planted in seedbeds or directly in containers, placing the thinner part of the seed downward.

### ADDITIONAL INFORMATION

The hilum is subbasal. The micropyle is indiscernible. The embryo has a straight axis, is relatively symmetrical and cream-colored with pink hues, and fills the seed cavity. The two cotyledons are massive, pulpy, shaped like the seed, plano-con-

vex in cross section, and strongly attached to one another, with rugose surfaces, sinuous contact surfaces, and latex. The plumule is undifferentiated. The radicle is small and conical or puntiform (Eyma 1966, Guil 1967, Pennington and Sarukhan 1968, Reitz 1968, Wood and Channel 1960).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