SOME SRI LANKAN PLANTS AND THEIR MEDICINAL USES

Mangifera indica Linn. – ANACARDICAEAE

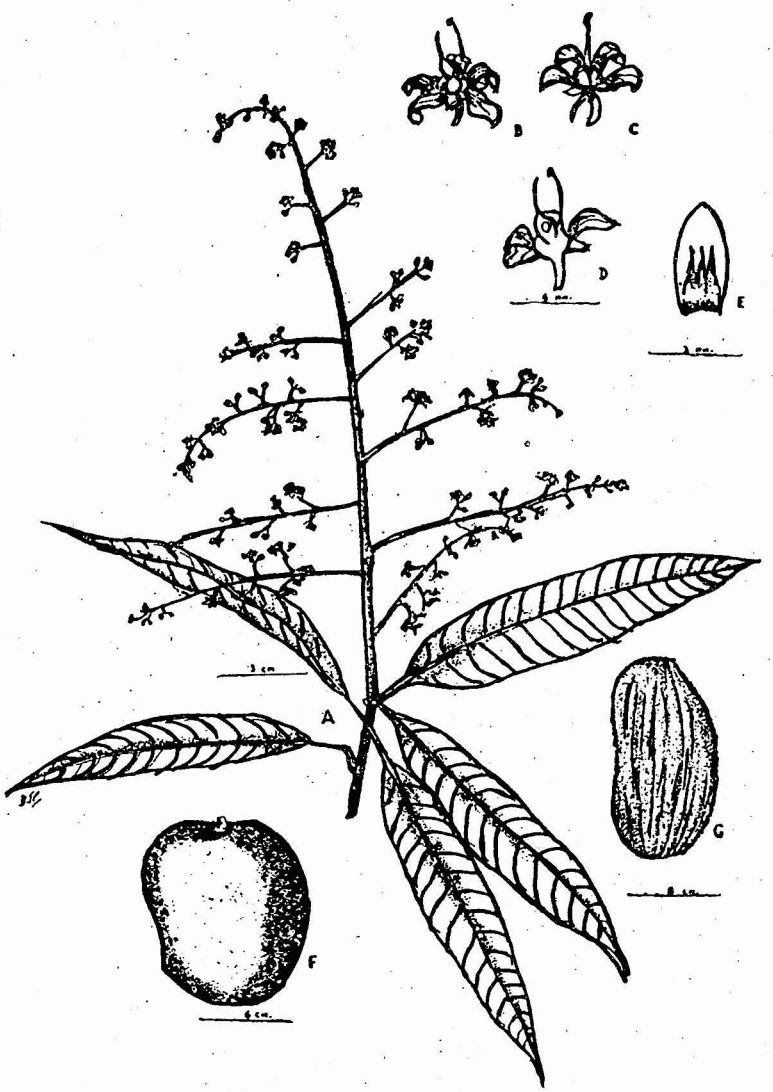

Figure . *Mangifera indica*. A, branch with flower panicle. B, hermaphrodite flower showing a single stamen, ovary and staminodes. C, male flower with a single stamen and tumid staminodes. D, longitudinal section of a hermaphrodite flower. E, petal showing 3 ridges inside. F, fruit. G, seed.

Engl. Mango; *Sinh.* Amba; *Tam.* Adishelarayam, Ambiram, Amiram, Iradam, Kachakkar, Kilimukkuma, Kogilosavam, Kokku, Maa, Madi, Madududam, Manga, Magandam, Malai, Mamagam, Mandi, Manmadamganai, Mattiyagandam, Mirudalagam, Omai, Palashiratta, Palerbatti, Pigubandu, Shedaram, Shegaram, Shudam, Shulli, Tema, Tevam, Tidalam ; *Hindi* Am. *Sans.* Alipriya, Amra, Atisairrabha, Bhramarapriya, Bhringabhishta, Chukralatamra, Chuta, Chutaka, Gandhabandhu, Kamanga, Kamaphala, Kamarasa, Kamashara, Kamavallabha, Kamayudha, Kameshta, Keshavayudha, Kireshta, Kokilananda, Kokilavasa, Kokilotsava, Koshi, Madadhya, Madhavadruma, Madhuduta, Madhukara, Madhuli, Madhvavasa, Madirasakha, Mahanda, Manjari, Manmathalaya, Manmathavasa, Manodna, Modhakhya, Mrishalaka, Nilakapittha, Nriyapapriya, Parapushtamahotsava, Phalashreshtha, Phalotpatti, Pikapriya, Pikaraga, Pikavallabha, Priyambu, Rasala, Sahakara, Shatpadatilhi, Shareshta, Shukrapriya, Sidhurasa, Sripriya, Sumadana, Vanotsura, Vasantadru, Vasantaduta.

A large, spreading tree, about 15–20 m. in height with a rough grooved bark and glabrous stems and branches; leaves simple, alternate, crowded at the ends of branches, 12–40 cm. long, 4.5–13 cm. broad, oblong or oblong–lanceolate, acute or acuminate, glabrous, shining, entire, margins undulate, base narrowed, petioles 1.7–4 cm. long; flowers small, yellowish green, polygamous, monoecious with a pungent odour, arranged in large, many–flowered, pubescent panicles longer than leaves, pedicles short, thick and jointed; bracts small, ovate, pubescent, deciduous; calyx 4– or 5–partite, segments 1.5–2 mm. long, 1 – 1.5 mm. broad, ovate, imbricate and pubescent ; petals 4 or 5, sometimes more being doubled, free, 2.5 mm. long, 1.5 mm. broad, oblong, subacute, reflexed, glabrous with 3 orange–coloured ridges on the inner face ; disk fleshy, 5–lobed, alternate with petals ; stamens 1–5 inserted inside between disk–lobes or on them, one, sometimes 2 fertile, others sterile slender tipped with a small gland, filament subulate, anther purple ; ovary superior, sessile, 1–locular, oblique, glabrous with a pendulous ovule from a basal or lateral funicle, style lateral, stigma simple ; fruit a large fleshy resinous drupe, 7.5–20 cm. long with a compressed, fibrous stone inside ; seed large, exalbuminous, ovoid–oblong, compressed, testa papery with plano–convex, often unequal and lobed cotyledons.

Flowers in October and fruits in April and May.

ILLUSTRATIONS. Rheede, Hort. Mal. 4 : *pls.* 1 & 2, 1678–1703 ; Beddome, Flor. Sylvat. *pl.* 162. 1868–1873 ; Gaertner, Fruct. 2 : *pl.* 100 ; Curtis, Bot. Mag. *pl.* 4510 ; Kirtikar and Basu, Indian Med. Pl, *pl.* 274. 1933.

DISTRIBUTION. Occurs in the Himalayas, Sikkim, Khasia, along Western Ghats, Burma and Ceylon. It is cultivated in South Africa and tropical America. In Ceylon, it is grown as a cultivated plant in almost every village garden though it is not a native of Ceylon.

India. Sikkim. *T. Thomson*, 1857 ; Dehra Dun, *Dimri* 34, March 1926 ; Chota Nagpore, *Clarke* 14089 *A,* April 1871 ; Pen. Ind. Or. *Herb. Wight* 548, Kew Distribution 1868–8. Ceylon. Eastern Prov., Batticaloa, *Thwaites C. P.* 1256 ; *Nevill,* March 1885 ; Central Prov., Ambagamuwa *Thwaites C.P.* 2614 ; Peradeniya, Bot. Gard., *Jayaweera* 603, March 1951.

COMPOSITION. The leaves of this tree contain euxanthin acid, euxanthon, hippuric and benzoic acids, mangiferin and mangin while the bark contains tannin and the exudation from it yields resin and gum. The fruits, too, yield a resin which is said to contain mangiferene, mangiferic acid, resinol and maniferol. The fruits which are consumed contain saccharose, levulose, dextrose and citric, tartaric and malic acids in addition to vitamins A, B and C, ascrobic acid and carotene. The seeds possess a fixed oil with oleostearin, starch, gallic acid and tannin.

USES. The juice of the leaves of this tree is given for bleeding dysentery, while an infusion of the

young leaves is prescribed for chronic diseases of the lungs, coughs and asthma. An infusion or expressed juice of the bark is used in menorrhagia, leucorrhoea, bleeding piles and haemorrhages of the lungs and intestines. A cold infusion of the barks of *Mangifera indica, Syzygium cumini* and *Terminalia arjuna* with bees' honey is given for bleeding from internal organs. A decoction of the dry flowers is used with beneficial effects on diarrhoea, chronic dysentery and gleet.

Anacardium occidentale Linn. — ANACARDIACEAE

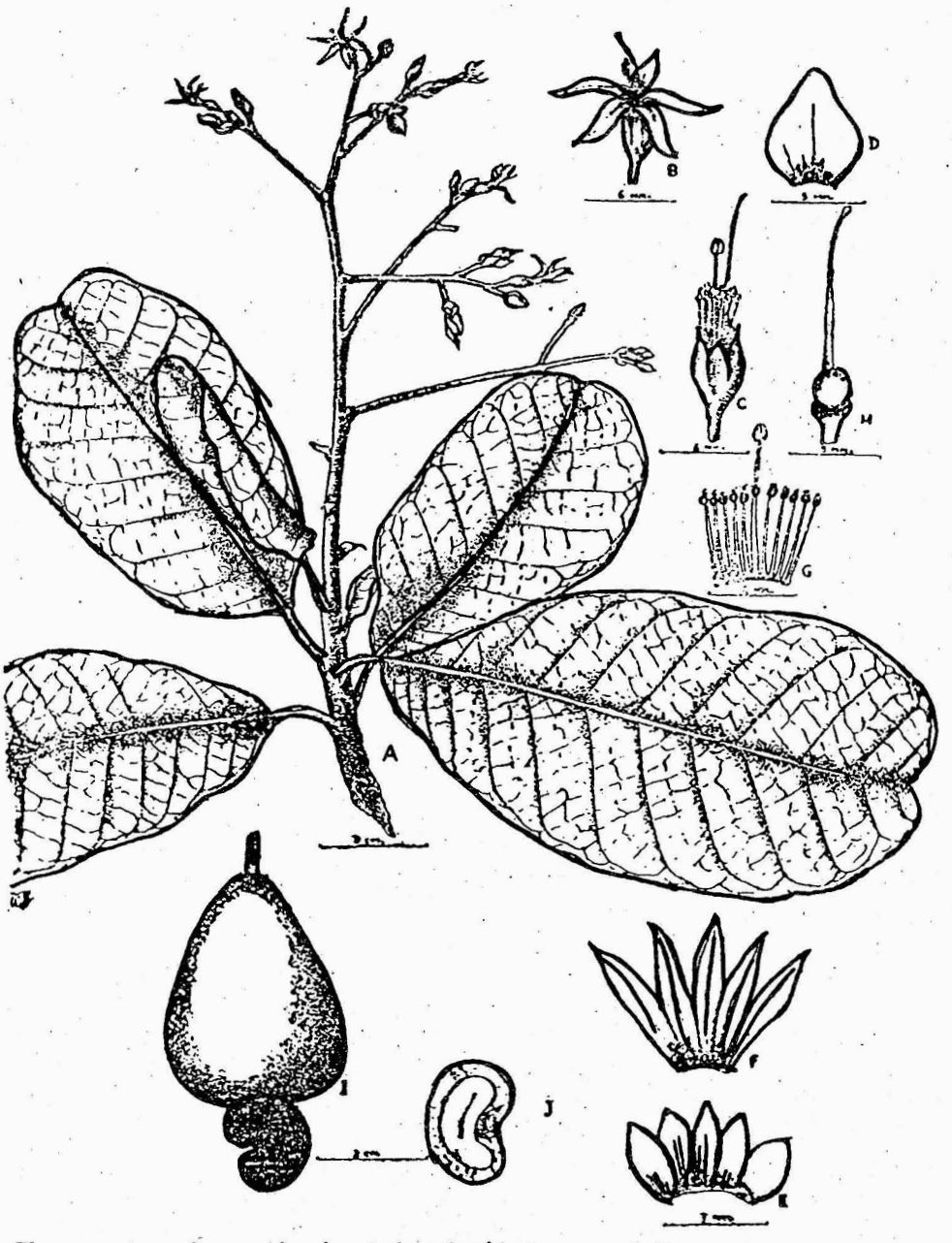

Figure . *Anacardium occidentale*. A, branch with leaves and flowers. B, external view of a flower. C, flower with the corolla removed. D, bract. E, sepals. F, petals. G, stamens with one longer than the others. H, pistil consisting of an ovary with a hairy apex and lateral style. I, nut borne on a swollen pedicel. J, longitudinal section of nut showing the pericarp and one cotyledon.

Engl. Cashew Nut ; *Sinh.* Kaju ; *Tam.* Andima, Kallarma, Kottaimundiri, Mundiri, Saram, Sigidima, Tirigai, Uttumabalam ; *Hindi* Kaju ; *Sans.* Agnikrita, Arushkara, Guchhapushpa, Kajutaka, Parvati, Prithagabija, Sophara, Sophahara, Srigdhapitaphala, Upapushpika, Vrittapatra.

A medium–sized tree with crooked trunk and terete, glabrous branches ; leaves simple alternate, coriaceous, 8.5–24 cm. long, 5.8–14.5 cm. broad, oblong, obovate or elliptic, rounded, or somewhat retuse at apex, glabrous, firmly reticulately veined, base cuneate, margin wavy, lateral veins 10–15 pairs, prominent beneath ; petioles 1–2.5 cm. long ; flowers small, regular, polygamous in terminal, bracteate panicles longer than leaves, peduncles lengthening with age ; bracts 6–8 mm. long and as broad, broadly ovate, acute, puberulous outside and glabrous within, soon deciduous ; sepals 5 or 6, imbricate, 4–5.5 mm. long, 1–2.7 mm. broad, lanceolate or ovate, puberulous outside ; petals 5 or 6, linear–lanceolate, imbricate, incurved, greenish yellow with a red blotch in the middle, 12–12.5 mm. long, 2 mm. broad, deflexed from the middle, puberulous outside ; stamens 7–10, fused at the base round the ovary, one larger than the others and exerted beyond the recurved petals or all equal, filaments of shorter stamens, 3.5–4 mm. long and that of the long stamen 8.5 mm. long, hairy at the base ; ovary obcordate, 2 mm. long with a hairy apex, l–locular, glabrous, attenuated into a somewhat lateral style 7.5–8 mm. long ; nut reniform 2.5 cm. long on a swollen, fleshy, yellow or red pedicel, pericarp cellular, full of acrid oil, seed reniform, ascending, exalbuminous, testa membranous, cotyledons semilunar with a milky taste.

Flowers in November, and January to March.

ILLUSTRATIONS. Griffith, Notul. 4 : *pl.* 656, *f.* 3 *euf ; Beddome,* Flor. Sylvat. *pl.* 163. 1868–1873. ; Kirtikar and Basu, Indian Med. Pl.*pl.* 275. 1933 ; Herb. Peradeniya, drawing.

DISTRIBUTION. A native of tropical America, now naturalized and cultivated in the hotter parts of India and Ceylon. In Ceylon, it is commonly found in village gardens and waste lands along the sandy western coast of the Island and in the dry zone.

India. Nilghiris, *Schmid* ; Pen. Ind. Or. *Herb. Wight* 549, Kew Distribution 1866–7 ; Bot. Gard. Calcutta, cultivated, *Pierre,* 1863. Ceylon. Peradeniya, Bot. Gard., cultivated *J. M. Silva* 195, April 1928 ; *Jayaweera* 253, Dec. 1957. S. Andamans. *Heinig* 432, March 1901 ; Car Nicobar, *King's Collector,* Feb. 1893. Brazil. Bot. Gard., *Baker* 65, June 1908.

COMPOSITION. The pericarp of the nut of this tree contains a toxic principle, cardol, anacardol, cardanol and anacardic acid. The kernels yield a fixed oil which contains linolic, palmitic, stearic and lignoceric acids and sitosterin. The exudation from the bark is a mixture of gum–arabic and bassorin.

USES. A decoction of the bark of this tree is used as a remedy for diarrhoea, syphilitic swellings of joints and for diabetes. The juice of the ripe receptacle is recommended for scurvy, uterine troubles and dropsy. The oil of the pericarp is useful as an anaesthetic in leprosy and psoriasis. It is a powerful vesicant, vermicide and insecticide. The non–toxic phenol, cardanol, separated from the oil, is used in the insulation of the ignition system in aeroplane engines. The kernel of the fruit is used extensively in the confectionary trade. The oil extracted is a mechanical and chemical antidote for irritant poisons.

In Goa, an alcoholic beverage is prepared from the ripe receptacles. The bark is used as a gargle in the treatment of aphthae, while the root is employed as a purgative in Africa. A cough remedy is prepared for children by infusing the young shoot and leaves in water. In the Congo, the bark is used as an arrow poison and the oral administration of the tincture of the bark is supposed to lower blood sugar level.

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