

Mangifera indica

Anacardiaceae

Northern India, Burma

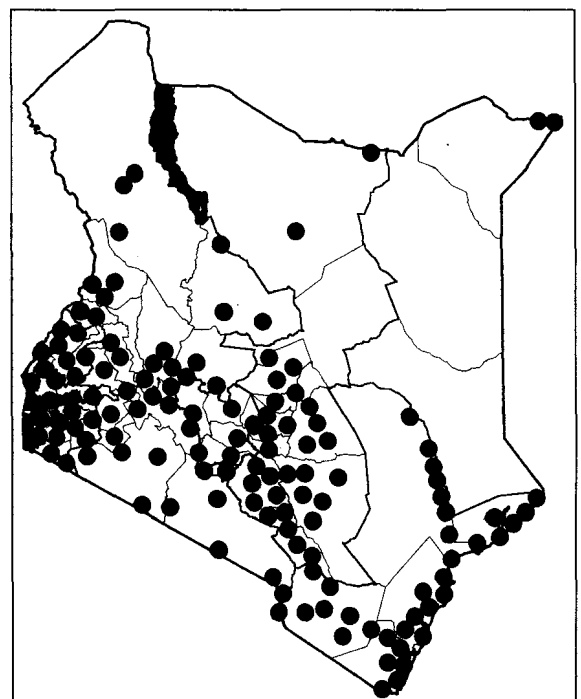
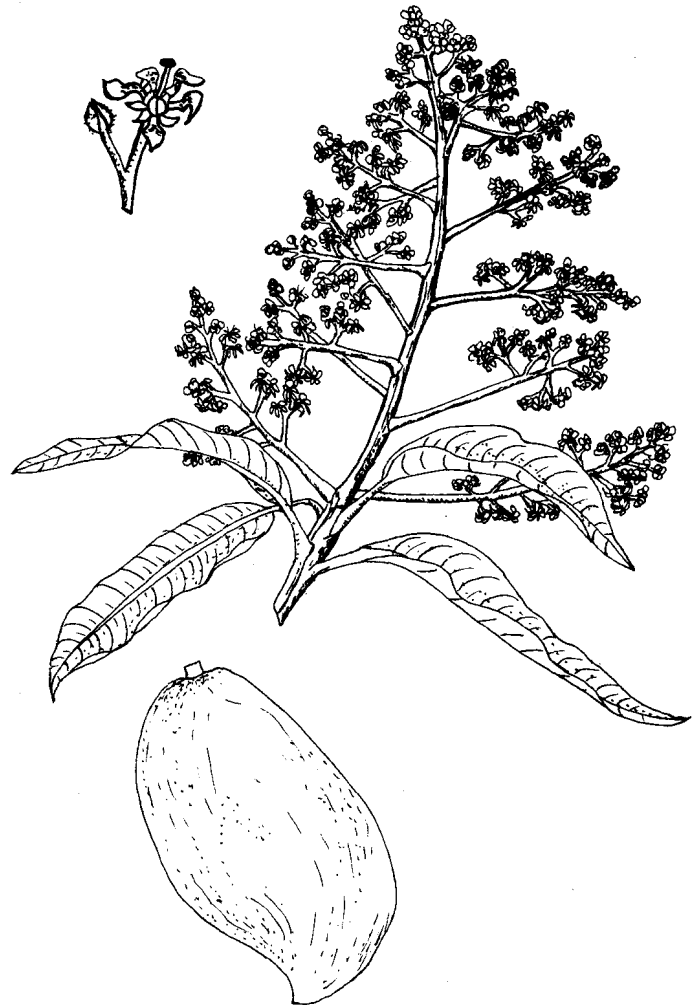
COMMON NAMES: **English:** Mango; **Kamba:** Maembe, Muembe; **Kikuyu:** Mwiembe; **Kisii:** Rieembe; **Luhya:** Liembe; **Luo:** Maembe, Mawembe; **Somali:** Amba; **Swahili:** Mwembe; **Tharaka:** Mwembe.

DESCRIPTION: A densely leaved evergreen tree with a trunk soon branching to a rounded crown, usually 10–15 m but occasionally reaching 25 m. **BARK:** Dark brown, cracking with age. **LEAVES:** Dark green, crowded at the ends of branches, to 30 cm long, smelling of turpentine when crushed. Young leaves soft, **copper-coloured and hanging limply.** **FLOWERS:** Numerous and small in **pink-brown pyramidal heads.** Pollination by flies and other insects. **FRUIT:** **Fleshy, 8–15 cm, the skin green–red–yellow, the flattened ‘stone’ is fibrous and woody around the large seed.**

ECOLOGY: One of the most important tropical fruit trees brought very early to eastern Africa (about 1,000 years ago). Now naturalized at the coast and on the banks of the lower part of River Tana where trees measuring over 2.5 m in diameter can be found. Grows also on river banks along River Dava at the Kenya–Ethiopian border near Mandera. Tropical areas with a pronounced dry season are best for regular fruiting. It does not tolerate flooding and prefers sandy–loamy and alluvial loamy sand that is well drained; it can do quite well in dry areas. Roots penetrate deeply, so rocky sub-soil is not favoured. Extensive shallow roots collect water and nutrients in the upper levels of the soil. Does well in a hot humid climate, usually below 1,500 m. Growth and reproduction are adversely affected above 1,800 m. Agroclimatic Zones II–V (riverine in Zones VI–VII). Flowers in September in Machakos and Kitui, fruit mature in February; fruits in November–December in Nyanza and in December–January in lower Tana.

USES: Firewood, timber (soft wood), carvings, boat building (dugout canoes at the coast), food (fruit), drink (juice), fodder (leaves for goats), bee forage, shade, ornamental,

mulch, soil conservation, river-bank stabilization, windbreak, gum, veterinary medicine.



Mangifera indica (cont)

PROPAGATION: Seedlings, grafting. Rootstock can be raised from seed, although cultivars specifically recommended for rootstock material have been developed. Good cultivars should be grafted onto the rootstock. It can be done at any age, but the earliest possible time is when the thinnest possible graft wood matches the girth of the rootstock, which is normally about 8 weeks from sowing. The rootstock stem should be sufficiently woody and thick (pencil size) to support cuts for budding. High temperatures, actively growing rootstocks and hardened scion wood are important for success. Young trees are susceptible to attack by termites and this has limited the spread of the crop in the drier areas.

SEED: 40–50 seeds per kg; germination rate 60–90%.

Separate seed from pulp and clean before storage or sowing.

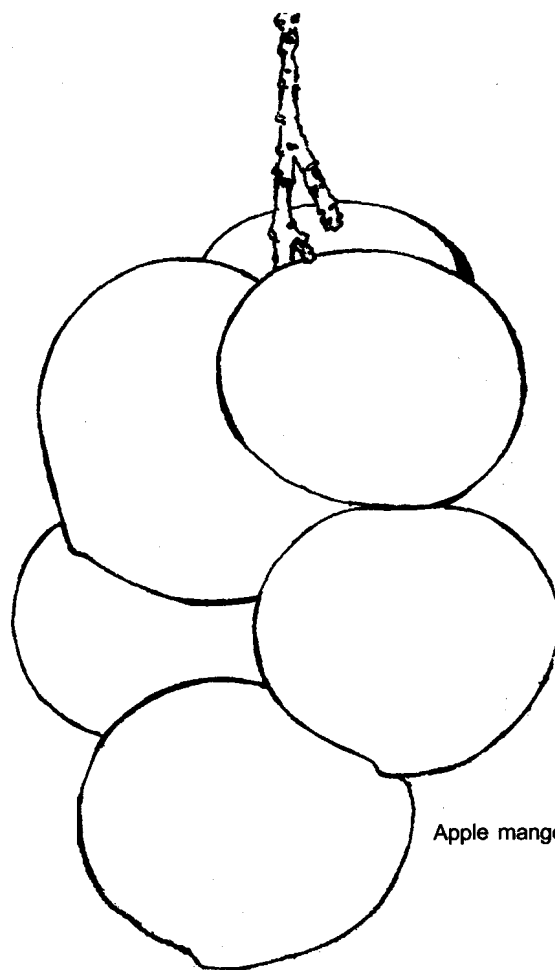
treatment: Treatment is not necessary, but nicking the seed enhances germination. Nicking must be done on the side away from the points where the first shoot and root will develop.

storage: Seed can be stored for only a month at room temperature. For best results, fresh seed should be used.

MANAGEMENT: Fairly fast growing; lopping, The tree coppices, but not very well. Adversely affected by fire.

REMARKS: One of the most important fruit trees of the tropics. Over a dozen varieties are available in Kenya. Some fruit are fibrous; others have a faint smell of turpentine. For quicker growth and early production of fruit, grafted material should be used. Good varieties with little or no fibre are now increasingly being grown, especially at the coast and in Eastern Province. Examples are the types locally known as 'Tommy Atkins', 'Ngowe' and 'Apple'. The potential of this tree has not been fully realized as much of the fruit goes to waste at the height of the fruiting season. Well-cured mango wood makes good carvings, and the tree is increasingly being promoted in the wood-carving industry. This is a good use for old unproductive trees. Due to the heavy shade and high water demand, the tree does not support undergrowth, including crops. The mango genus (*Mangifera*) has several dozen other species, most of which have edible fruit, the most well known being the true 'apple' mango, *M. odorata*. The genus *Mangifera* is Indo-Malaysian.

FURTHER READING: <http://www.worldagroforestrycentre.org/Sites/TreeDBS/AFT/AFT.htm>; Bein et al., 1996; Bekele-Tesemma et al., 1993; Dharani, 2002; Fichtl and Adi, 1994; ITDG and IIRR, 1996; Jensen, 1999; Katende et al., 1995; Lötschert and Beese, 1983; Mbuya et al., 1994; Noad and Birnie, 1989; Palgrave and Palgrave, 2002; Verheij and Coronel, 1991; von Maydell, 1990.



Apple mangoes