Mangifera indica L.

Systematic Position

Division: Magnoliophyta
Class: Magnoliopsida
Sub-Class: Rosidae
Order: Sapindales
Family: Anacardiaceae
Genus: *Mangifera*
Species: *indica*

Popular names: amb, amri, mamidi, am, aam, marinamara, cutam.

Nature: Tree

Flowering time: January-March.

Plant distribution: Mango (*Mangiferia indica*) is one of the most cultivated fruits that originated between northwest Myanmar, Bangladesh, and northwestern India. Numerous cultivars have been developed and spread all over the world including Kenya where it is cultivated in different parts of the country but primarily produced in Ukambani. India ranks first among world's mango producing countries accounting for about 50% of the world's mango production.

Gardening notes:

1. **Light:** It requires full sun light.
2. **Moisture:** Mango is well adapted to tropical climate. High humidity and cloudy weather at the time of flowering are not favorable as they affect

pollination and fruit set and encourage diseases. Rains during flowering are detrimental to the crop.

3. **Propagation:** It can be propagated from seed or propagated vegetatively.

Economic importance:

1. It helps in fighting cancer as Mangoes contain antioxidants such as quercetin, fisetin, isoquercitrin, astragalin, gallic acid and methyl gallate. All these properties protect our body against breast cancer, colon cancer, prostate cancer and leukaemia.

2. Helps in maintaining cholesterol level due to high level of vitamin C, fiber and pectin making it a perfect fruit that helps in controlling high cholesterol level.

3. Helps in regulating diabete

4. Help in strengthening immune system

Plant description:

Mango trees make handsome landscape specimens and shade trees. They are erect and fast growing with sufficient heat, and the canopy can be broad and rounded, or more upright, with a relatively slender crown. It is ultimately a large tree, to 65 ft. The tree is long-lived with some specimens known to be over 300 years old and still fruiting. In deep soil the taproot descends to a depth of 20 ft, and the profuse, wide-spreading feeder roots also send down many anchor roots which penetrate for several feet.

Root-The tree forms a long unbranched long taproot (up to 6 to 8 meters and more) plus a dense mass of superficial feeder roots. Feeder roots develop at the base of the trunk or slightly deeper which form anchor roots and sometimes a collection of

feeder roots develops above the water table. The fibrous root system extends away from the drip line. Effective root system of an 18 year old mango tree may observe a 1.2 m depth with lateral spread as far as 7.5 m

Leaf- The leaves are alternate, with no stipules, simple, leathery, oblong-lanceolate to linear. Leaves are variable in shapes like oval-lanceolate, lanceolate, oblong, linear-oblong, ovate, obovate-lanceolate or roundish-oblong depending on variety. The upper surface is shining and dark green while the lower is glabrous light green. The midrib is pale and conspicuous with many prominent light colored horizontal veins distinct.

Inflorescence- The inflorescence is branched panicle borne at shoot terminals, 6.4 to 40.6 cm, possessing many very small (4 mm) greenish white or pinkish flowers.

Flower: Flowers radially symmetrical, usually have 5 spreading petals, 3-5 mm long, 1-1.5 mm broad, streaked with red, imbricate, with the median petal prolonged like a crest at the base, finely hairy and fragrant, partly male and partly bisexual; stalk short; 5 stamens, 1 fertile, the other 4 shorter and sterile, borne in a disc. The flower has a conspicuous 5-lobed disc between the petals and stamens. Calyx yellow-green, very short, deeply 5-lobed; 5 sepals, each 2- 2.5 mm long x 1-1.5 mm broad, green with whitish margin, or yellowish green, hairy outside.

Fruits: Fruit an irregularly egg-shaped and slightly compressed fleshy drupe, 8-12 (max. 30) cm long, attached at the broadest end on a pendulous stalk. The skin smooth, greenish-yellow, sometimes tinged with red. The underlying yellow-orange flesh varies in quality from soft, sweet, juicy and fiber-free in high-quality selected (clonal) varieties to turpentine flavored and fibrous in wild seedlings. The single, compressed-ovoid seed is encased in the white fibrous inner layer of the fruit.

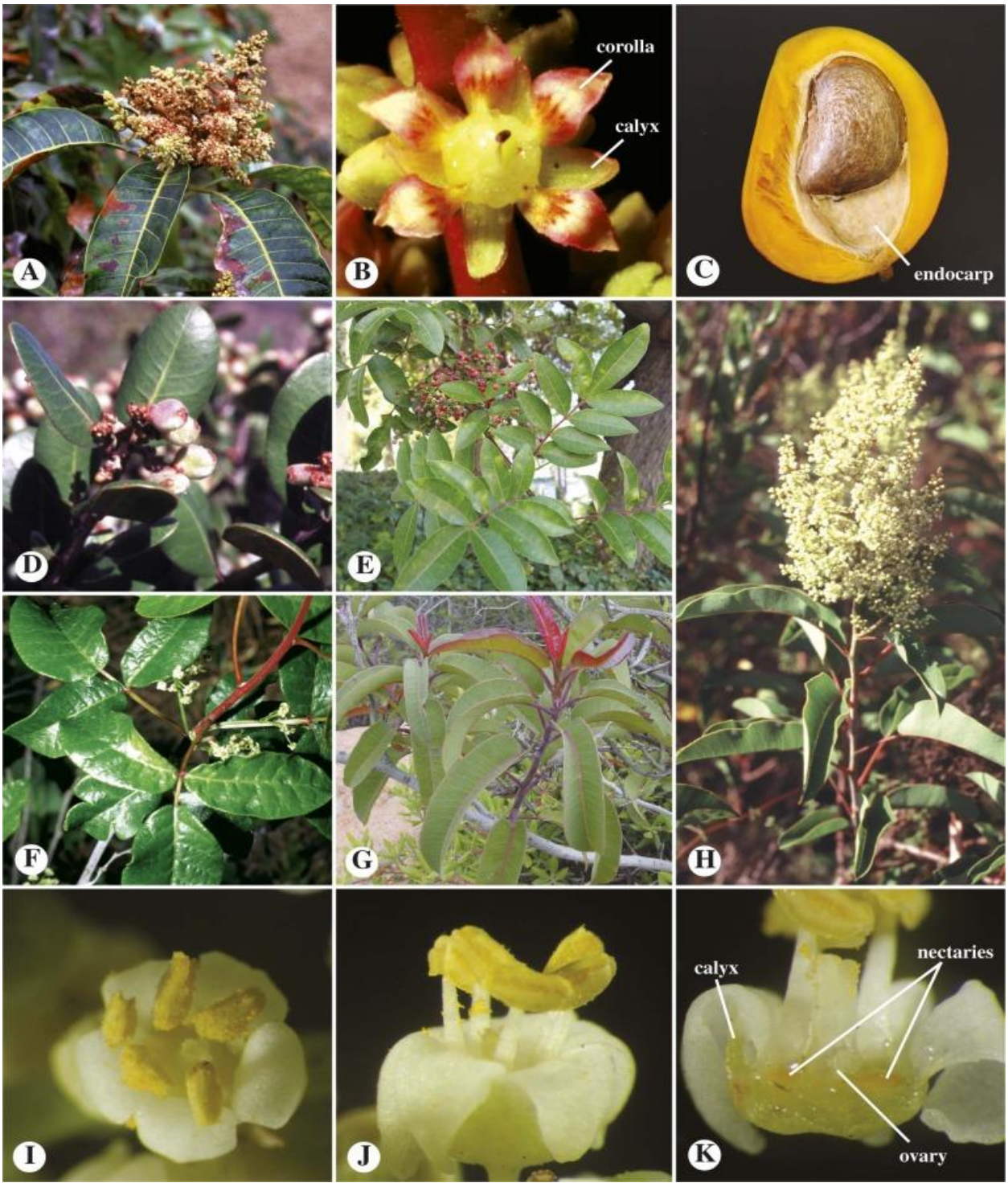

Fig: A. Inflorescence and leaves. **B.** Flower close-up. **C.** Fruit (drupe) longitudinal section, showing single, apical seed and endocarp. **D.***Rhus integrifolia*, shoot with drupes. **E.***Schinus terebinthifolius*, Brazilian pepper, shoot with drupes. **F.***Toxicodendron diversilobum*, poison oak. **G–K.***Malosma laurina*, laurel sumac. **G.** Vegetative shoot. **H.** Inflorescence. **I, J.** Flower close-ups. **K.** Flower longitudinal-section, showing nectaries and ovary.