

Annual pruning of water sprouts and overlapping branches is recommended. In biennial flowering, prune after harvest, all or some twigs (depending on flowering intensity) which have already flowered. Also prune flowering twigs which do not set fruit.

**Pest and Diseases.** Mango joppers and fruit are the most important mango pests in South-East Asia.

Anthraxnose (*Glomerella cingulata*, conidial stage *Colletotrichum gloeosporioides*), powdery mildew, leaf spot, and various storage roots of fruits are the diseases which infect mango.

### **Harvest and Post harvest Handling**

Pick the fruit manually by climbing the tree. Or use a picking bag with a cutting edge mounted on a bamboo pole.

Mature green fruit are ready for harvesting if they have attained full size, the cheeks are well developed, and the endocarp has hardened.

In the local market, the mangoes are picked in bamboo baskets lined with protective material. In the export market, mangoes are placed in single layers, preferably in partitioned (into single-fruit) compartments.

Export fruit are washed and dipped in fungicide or hot water to control anthracnose. They are shipped by air.

To extend the short mango season, fruits can be eaten. They are also ripened artificially with ethylene-releasing carbide. Cool storage can postpone ripening up to one month. Storage conditions depend very much on the cultivar.

**Reference:** Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (**PCARRD**)

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# **MANGO**

*(Mangifera indica)*



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## **MANGO** (*Mangifera indica*)

The luscious mango is a favorite Filipino fruit. Its delicious, spicy taste makes it a highly esteemed tropical fruit. It is also sweet or turpentine flavored.

### **Description**

Mango is an evergreen, erect, and branched tree. 10-45 m tall. The trunk is 60-120 cm in diameter. It has a long taproot and dense surface mass of feeding roots. The bark is grayish brown and cracked.

The leaves are simple, spirally arranged, and produced in flushes. Young leaves are usually yellowish or reddish but eventually turns dark, shiny green. The flowers are greenish yellow.

The fleshy fruit is very variable in shape, size and color. It is, however, usually oval or oblong, and yellowish green to reddish in color. The flesh is either fibrous or nonfibrous. The peel is fairly thick.

### **Variety**

In the Philippines, the popular mango varieties are 'Carabao' and 'Pico'.

### **Uses**

The mango is cultivated for its fruit which can be eaten in three distinct ways, depending on the cultivar: ripe, and processed.

Processing may be done at various stages of fruit maturity. It may be in the form of pickles, dried slices in syrup, juice, puree, or paste, etc. The green fruit is also used in fish and meat dishes.

The seed kernels serve as feed to cattle and poultry. They are even used as famine food in India.

The young leaves are cooked as vegetables or even eaten fresh. The dried flowers and bark and decoction of the kernels serve as astringents in traditional medicine. Extracts of unripe fruits, barks, stem, or leaves have shown antibiotic activity. The wood is fairly strong, hard, and easy to work. So, it can be employed for construction and outdoor applications. It must, however, be treated first with preservative. The wood also makes excellent charcoal and is used in mushroom culture.

### **Soil and Climatic Requirements**

Mangoes grow in a wide range of soils and moisture conditions. A pH range of 5.5-7 is also desirable. Easy access to water may stimulate growth but it discourages flowering.

Mangoes thrive well in the tropics. A long season lasting more than three months is needed for fruit production.

The best temperature for commercial cultivars is 24° - 27°C. The crop requires rainfall ranging from 750 to 2,500 mm per year. Mangoes, however, are not affected by occasional flooding and are drought tolerant.

### **Cultural Management**

**Propagation.** Mango can be propagated by seed, grafting, and budding. Rooting of cuttings and layering are also done but not on a commercial scale.

**Transplanting.** Transplant the seedlings early in the rainy season. The recommended spacing ranges from 10 m that is 100 trees/ha.

**Irrigation.** Irrigate during the first year after transplanting. This provides growth and flushing and suppresses flowering. Irrigation also permits intercropping of fruits (papaya, banana, pineapple) or vegetables during the establishment period.

When the trees are big enough to produce a substantial crop, stop irrigation long enough to impose inactivity leading to flower initiation.

**Flowering.** Many traditional practices exist to promote mango flowering. Spraying potassium nitrate (KNO<sub>3</sub>), however, is a simpler and more reliable flower inducing method for the Philippines 'Carabao' and 'Pico' cultivars.

**Fertilization.** To stimulate growth, fertilize with liberal amounts of nitrogen. Also apply fertilizer or manure after harvest to encourage post harvest flush and just before bloom to aid fruit growth.

**Pruning.** Formative pruning is done to shape the trees. Thereafter they are left unpruned until ageing lower limbs need to be removed.