PLANT FACT SHEET

Mangifera indica L.

GENUS *Mangifera* **FAMILY** Anacardiaceae

COMMON NAMES Mango

EDIBLE PARTS AND USES

Edible parts: Fruit, Seeds, Nuts, Leaves, Flowers, Vegetable

Ripe fruit are eaten raw. Unripe fruit is pickled.
Seeds can be eaten cooked. They are boiled or roasted. They are made into meal by powdering.
Young leaves can be eaten raw or cooked.
Amchur is made from the dried unripe fruit. This is used in curries, and pickles and chutneys.
The seed kernels are used for famine food in India. They are boiled, roasted or soaked to remove the bitterness.
Caution: The sap from the tree or fruit can cause skin problems with some people.

DESCRIPTION

An erect, branched evergreen tree. It can grow to 10-40 m high and is long lived. (Trees grown by vegetative means are smaller and more compact.) Trees spread to 15 m across. It has strong deep roots. The trunk is thick. The bark is greyish-brown. The leaves are simple and shaped like a spear. Some kinds of mangoes have leaves with a wavy edge. They can be 10-30 cm long and 2-10 cm wide. They are arranged in spirals. The leaf stalk is 1-10 cm long and flattened. Leaves are often brightly coloured and brownish-red when young. These tender leaves which are produced in flushes become stiff and dark-green when mature. The flower stalks are at the ends of branches. They are 10-50 cm long and branching. Up to 6,000 flowers can occur on a stalk. Most of these are male and between 1 and 35 % have both male and female flower parts. Fruit are green, yellow or red and 2.5 to 30 cm long. The fruit hang down on long stalks. The outside layer of the seed is hard and fibrous and there is one seed inside. Several embryos can develop from one seed by asexual reproduction. The fruit shape and colour vary as well as the amount of fibre and the flavour. India has many varieties and they cannot tolerate humidity.

HABITAT

A tropical and subtropical plant. It grows in the lowlands. It grows from sea level up to 1,600 m altitude in the tropics. It does best in areas below 700 m and with a dry season. Rain and high humidity at flowering reduces fruit set. It thrives best where temperatures are about 25°C but will grow with temperatures between 10 and 42°C. Temperatures of 0°C will damage young trees and flowers. Low temperatures (10-20°C) at flowering time will reduce fruiting. As temperatures get lower due to latitude or altitude, fruit maturity is later and trees become more likely to only have good crops every second year. Mangoes can grow on a range of soils. In wetter areas

soils with less clay are better. They can withstand occasional flooding. A soil pH of 5.5 to 6.5 is best. Soils with pH above 7.5 cause plants to develop iron deficiency. It grows in the Sahel. It can grow in arid places. It grows in Miombo woodland in Africa. It suits hardiness zones 11-12. In Yunnan.

PRODUCTION

Cultivation

Trees are grown by planting fresh seed and they can be transplanted. Mangoes vary in their ability to breed true from seed. When more than one seedling emerges from the seed some of these are asexual and breed true. Clean seed germinate best if they are treated at 50°C for 20 minutes, then planted on their edge with the round bulge upwards and near the soil surface. The husk around the seed should be removed. Seeds germinate in 3-6 weeks. The strongest growing seedlings from this seed are used and the others thrown away. The seedlings from the folds of the seed are vegetative while the seedling from the centre of the seedling near the stalk end may be sexual and show variation from type. Other seeds only produce one seedling and these normally vary and can be different from the parent tree. Plants can be propagated by budding, or by grafting using in-arching. This is not easy. Cuttings grow with care. In wetter places flowers need to be protected with fungicides to enable fruit to form. If organic manure is used this should not be directly in the planting hole nor immediately against the new plant. Young transplanted seedlings need regular watering. A spacing of 6-12 m between plants is used. Wind protection is advisable to prevent fruit rubbing and getting damaged. Trees should only ever be lightly pruned as fruit develop on new growth and heavy pruning can reduce flowering. Flowering can be brought about by foliar sprays of potassium nitrate.

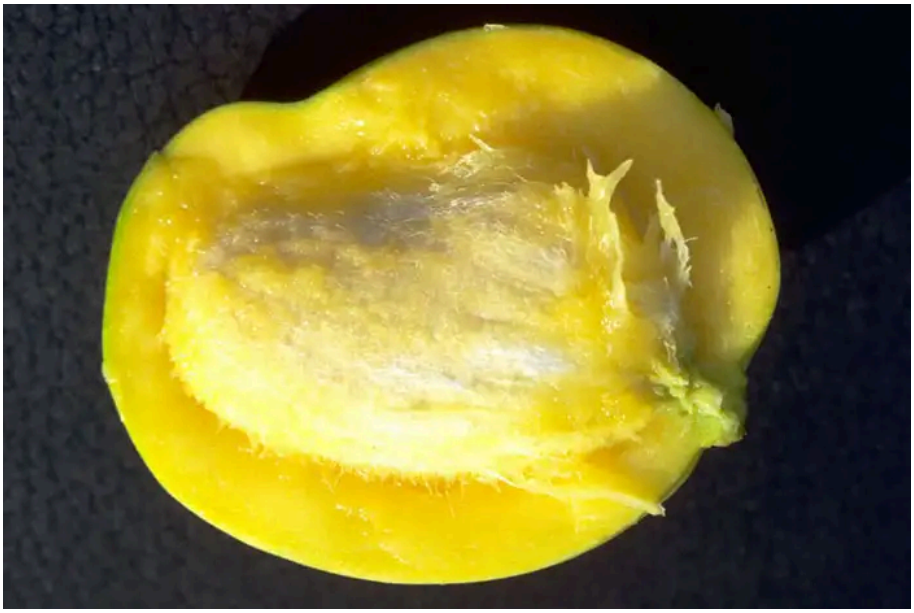
Harvesting and Seed Production

Seeds germinate after about 20 days. Seedling trees produce after 4-6 years and increase in production up to 20 years. Trees often bear better each second year. Rain at flowering reduces fruit setting. Fruiting is at the end of the year. Fruit take 4-5 months to mature. Fruit vary in weight from 200 to 1,000 g. Trees can produce one million flowers but only 500 fruit. Trees last for many years.

NOTES

Mature fruit are higher in Vitamin C and A than oranges. There are about 40 Mangifera species.
The synonyms are unresolved names in The Plant List.
It probably has anti-cancer properties.
Fruit are high in folates 56-75µg/100.

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



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