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Tamarindus indica



Tamarind (*Tamarindus indica*) is a leguminous tree (family Fabaceae) bearing edible fruit that is indigenous to tropical Africa. The genus *Tamarindus* is monotypic, meaning that it contains only this species.

The tamarind tree produces brown, pod-like fruits that contain a sweet, tangy pulp, which is used in cuisines around the world. The pulp is also used in traditional medicine and as a metal polish. The tree's wood can be used for woodworking and tamarind seed oil can be extracted from the seeds. Tamarind's tender young leaves are used in Indian

cuisine. Because tamarind has multiple uses, it is cultivated around the world in tropical and subtropical zones.

The tamarind is a long-lived, medium-growth tree, which attains a maximum crown height of 12 to 18 metres (40 to 60 feet). The crown has an irregular, vase-shaped outline of dense foliage. The tree grows well in full sun. It prefers clay, loam, sandy, and acidic soil types, with a high resistance to drought and aerosol salt (wind-borne salt as found in coastal areas).

The evergreen leaves are alternately arranged and pinnately lobed. The leaflets are bright green, elliptic-ovular, pinnately veined, and less than 5 cm (2 in) in length. The branches droop from a single, central trunk as the tree matures, and are often pruned in agriculture to optimize tree density and ease of fruit harvest. At night, the leaflets close up.

As a tropical species, it is frost-sensitive. The pinnate leaves with opposite leaflets give a billowing effect in the wind. Tamarind timber consists of hard, dark red heartwood and softer, yellowish sapwood.^[15]



Tamarind pollen grains

The tamarind flowers (although inconspicuously), with red and yellow elongated flowers. Flowers are 2.5 cm wide (one inch), five-petalled, borne in small racemes, and yellow with orange or red streaks. Buds are pink as the four sepals are pink and are lost when the flower blooms.

The fruit is an indehiscent legume, sometimes called a pod, 12 to 15 cm

(4

$\frac{1}{2}$ to 6 in) in length, with a hard, brown shell. The fruit has a fleshy, juicy, acidic pulp. It is mature when the flesh is coloured brown or reddish brown. The tamarinds of Asia have longer pods (containing six to 12 seeds), whereas African and West Indian varieties have shorter pods (containing one to six seeds). The seeds are somewhat flattened, and a

glossy brown. The fruit is best described as sweet and sour in taste, and is high in tartaric acid, sugar, B vitamins, and, unusually for a fruit, calcium. The fruit is harvested by pulling the pod from its stalk. A mature tree may be capable of producing up to 175 kg (386 lb) of fruit per year. Veneer grafting, shield (T or inverted T) budding, and air layering may be used to propagate desirable cultivars. Such trees will usually fruit within three to four years if provided optimum growing conditions.

Tamarind is high in vitamin C content and as such is used in the treatment and subsequent cure of scurvy and also as an antiscorbutic agent. Because of its refrigerant properties tamarind is used as a remedy for fever. In the Philippines tamarind is used to treat and reduce malaria fever.

Tamarind has played an important role in traditional medicine. In beverage form, it was commonly used to treat diarrhea, constipation, fever and peptic ulcers. The bark and leaves were also used to promote wound healing. Modern researchers are now studying this plant for potential medicinal uses.

Its partially dried fruit is used to make medicine. People take tamarind for constipation, liver and gallbladder problems, and stomach disorders. It is also used to treat colds and fever. Women sometimes use tamarind to treat pregnancy-related nausea.