

## Tamarind

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### Tamarind



### Scientific classification

Kingdom: Plantae

(unranked): Angiosperms

(unranked): Eudicots

(unranked): Rosids

Order: Fabales

Family: Fabaceae

Subfamily:	Caesalpinioideae
Tribe:	Detarieae
Genus:	Tamarindus L.
Species:	T. indica
Binomial name	
Tamarindusindica L.	

## Description

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The tamarind is a long-lived, medium-growth, bushy 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 in clay, loam, sandy, and acidic soil types, with a high drought and aerosol salt (wind-borne salt as found in coastal areas) resistance.

Leaves are evergreen, bright green in color, elliptical ovular, arrangement is alternate, of the pinnately compound type, with pinnate venation and less than 5 cm (2 inches) in length. The branches droop from a single, central trunk as the tree matures and is often pruned in human agriculture to optimize tree density and ease of fruit harvest. At night, the leaflets close up.

The tamarind does flower, though 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.



Tamarind flowers

The fruit is an indehiscent legume, sometimes called a pod, 12 to 15 cm (3 to 6 inches) in length, with a hard, brown shell.<sup>[4][5][6]</sup> The fruit has a fleshy, juicy, acidulous 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 short pods containing one to six seeds. The seeds are somewhat flattened, and glossy brown.

The tamarind is best described as sweet and sour in taste, and is high in tartaric acid, sugar, B vitamins and, oddly for a fruit, calcium.

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.



Tamarindus leaves and pod

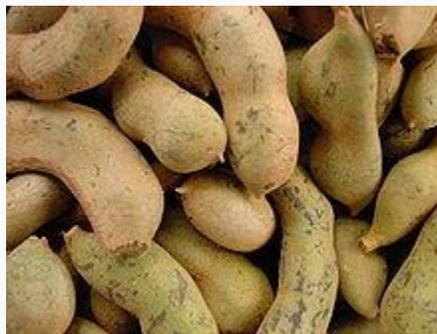
Tamarind is harvested by pulling the pod from its stalk. A mature tree may be capable of producing up to 175 kg (350 lb) of fruit per year. Veneer grafting, shield (T or inverted T) budding, and air layering may be used to propagate desirable selections. Such trees will usually fruit within three to four years if provided optimum growing conditions.



 A tamarind seedling



 Tamarind



 Raw tamarind fruits



Tamarind tree, India



Three-day-old tamarind seedling

The fruit pulp is edible. The hard green pulp of a young fruit is considered by many to be too sour, but is often used as a component of savory dishes, as a pickling agent or as a means of making certain poisonous yams in Ghana safe for human consumption.<sup>[citation needed]</sup>

The ripened fruit is considered the more palatable, as it becomes sweeter and less sour (acidic) as it matures. It is used in desserts as a jam, blended into juices or sweetened drinks, sorbets, ice creams and all manner of snacks.

In Western cuisine, it is found in Worcestershire sauce<sup>[9]</sup> and HP sauce.

In most parts of India, tamarind extract (dried tamarind available commercially is heated in water and strained out leaving the extract) is used to flavor foods ranging from meals to snacks. Along with tamarind, sugar and spices are added to (regional) taste for chutneys or a multitude of condiments for a bitter-sweet flavor. The immature pods and flowers are also pickled and used as a side dish. In regional cuisines, such as Rajasthan, Maharashtra (where it is called chincha), Tamil Nadu (where it is called puli) and Andhra Pradesh, (where it is called Chinthapandu) it is used to

make rasam, amtee, sambhar, vathakuzhambu, puliyogare and chutneys and pickles. In Andhra Pradesh and Tamil Nadu, tender leaves of tamarind called chinthachiguru (சிந்திசுரு)

and puliyankozhunthu(புளியங்கொழுந்து), respectively, are used with lentils to make raw chutney. In the state of Andhra Pradesh "Chinthapandu" (Tamarind) is an essential ingredient in their "Pulihora" "Fish Pulusu", majority of "vegetable Pulusu curries", "Chaaruu" "PappuChaaruu" "NilavaPatchallu" and "ChethiPatchallu". Curries made of "ChinthaChiguru"(Tender leaves of Tamarind tree) mixed with prawns, meat or pulses ("ChinthaChiguruRoyyalaKooru", "ChinthaChiguruMaamsamKooru" or ChinthaChiguruPappu" respectively) are great delicacies in Andhra Pradesh., Karnataka, India, the tamarind, called hunasaehannu, is used in saaru (lentil soup), sambhar or sambar (vegetable soup), gojju (sauce), and several types of chutneys. In southern parts of Kerala, mostly along the coastal belt, it is added to fish curry masalas, with ground coconut for flavoring. It is also used extensively as preservative and in pickles (thokku).

In Yunnan of China, tamarind is used in making jam or chilled drink.

In Guadeloupe, tamarind is known as tamarinier and is used in jams and syrups.

It is used in sauces or sold in various snack forms: dried and salted; in sweet, soft clusters, or candied (see for example chamoy snacks). Agua de tamarindo, a fresh beverage made from tamarind, is popular throughout the country. Agua fresca beverages, iced fruit bars and raspados all use it as the main ingredient. Jarritos is a well-known export brand soda drink (tamarind is the second most popular flavour of the brand). Mexican tamarind snacks, such as "Batilongo", PelonPelo Rico and Pulparindo are available in specialty food stores worldwide. Often in Mexico, tamarind is plucked off the tree and eaten raw.



Tamarind balls from Trinidad and Tobago

A sour, chilled drink made from tamarind is served in Egypt.



Tamarindusindica tree

Traditional medicinal uses[edit]

Throughout Southeast Asia, fruit of the tamarind is used as a poultice applied to foreheads of fever sufferers.<sup>[4]</sup> Based on human study, tamarind intake may delay the progression of skeletal fluorosis by enhancing excretion of fluoride. However, additional research is needed to confirm these results.<sup>[12]</sup>

Carpentry uses[edit]

Tamarind wood is a bold red color. Due to its density and durability, tamarind heartwood can be used in making furniture and wood flooring.

Metal polish[edit]

Tamarind concentrate can be used to remove tarnish from brass and copper.

In temples, especially in Buddhist Asian countries, the fruit pulp is used to polish brass shrine statues, lamps, and other objects, removing tarnish and the greenish patina that forms.<sup>[1]</sup> In south Indian homes and temples tamarind is widely used to clean the copper and bronze utensils.<sup>[citation needed]</sup>

Horticultural uses



Tamarind tree

Throughout Asia and the tropical world, tamarind trees are used as ornamental, garden and cash crop plantings. Commonly used as a bonsai species in many Asian countries, it is also grown as an indoor bonsai in temperate parts of the world.

#### Research

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In hens, tamarind has been found to lower cholesterol in their serum, but not in the yolks of the eggs they laid.<sup>[14]</sup> Due to a lack of available human clinical trials, there is insufficient evidence to recommend tamarind for the treatment of hypercholesterolemia or diabetes.<sup>[15]</sup>