

- The fruit is marketed world wide and in Uganda it is commonly sold in the Kampala markets like Owino, Nakasero and Nakawa.
- The leaves and twigs can be used as fodder for animals though rarely cut for this purpose as it affects fruit yields.
- The flowers are reported to be a good source for honey production.
- Its firewood is of high calorific value and also produces excellent charcoal. The tree produces very hard, durable and strong timber that is used in general carpentry.
- The ash from the bark may be given internally as a digestive. Incorporated in lotions, the bark may be used to relieve sores, ulcers, boils and rashes.
- Leaf extracts work as an anti-oxidant in the liver, and are a common ingredient in blood sugar reducing medicines. A sweet decoctions of the leaves is good against throat infection, cough, fever and intestinal worms.
- Powder from the seeds may be given to cure dysentery and diarrhoea.

### Services provided by the tree

- The extended crown of *Tamarindus indica* provides shade so that the tree is widely used as a resting place in villages.

- Because of its resistance to wind, it can also serve effectively as a windbreak. It is not very compatible with other crops because of its dense shade from the broad spreading crown. It is sometimes used for firebreaks as no grass will grow under the trees.
- The evergreen habit and beautiful flowers make the tree suitable for ornamental planting in homesteads and along roadsides.

### Conclusions

The importance of *Tamarindus indica* has resulted in widespread cutting of the tree for subsistence as well as commercial use. As natural stands dwindle, the future of this precious tree species lies in deliberate efforts geared towards its propagation and multiplication on-farm.

Current research and development work aims at documenting knowledge about the tree as a way of popularizing it.

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# Tamarindus indica

**Mukoge (Luganda, Runyoro)**

**Mkwaju (Swahili)**

**Tamarind (English)**



**This indigenous tree provides multiple products and has potential for Agroforestry**



## Introduction

*Tamarindus indica* is an important tree that provides fruits, poles, firewood, shade, and windbreaks. It also bears many fruits and germinates easily. It is in light of these attributes that through research the species has been identified as one of the most important indigenous species with potential for agroforestry.

## Description of the tree

*Tamarindus indica* is a large evergreen tree that grows up to 30m tall, with a dense and widely spreading crown. Its stem may grow to 2m in diameter. The tree usually starts bearing fruits at 7 to 10 years of age, with fruit yields stabilizing at about 15 years.

## Where does the tree grow?

It is an indigenous tree in many parts of Africa. In Uganda, it is commonly found in Eastern, Northern and in some parts of Luweero, Nakasongola, Mukono and Kayunga districts.

*Tamarindus indica* prefers semi-arid areas and wooded grasslands and is often associated with termite mounds. The tree can also be found growing along streams and river banks. Its extensive root system contributes to its resistance to drought and wind. A long dry season is necessary for fruiting.

It grows well over a wide range of soil and climatic conditions and is found growing at

altitude between 0 - 1500 metres above sea level, with mean annual temperature of up to 47 °C. It requires mean annual rainfall of 350 to 1500 mm and prefers well drained, deep soils.

## Tree propagation

It may be propagated by seed, grafting and budding. Seeds are soaked in cold water for 12 hours before planting. Germination takes place in 40 to 50 days after planting. About 90% of the seeds planted germinate.

The germination occurs best when seeds are covered by loose, sandy loam soil or by a mixture of loam and sand. Seedlings should attain at least 80 cm before being transplanted at the beginning of a rainy season.

There are approximately 350 to 1000 seeds/kg.

## Tree management

Growth is generally slow. Some branches of young trees are removed (pruned) to allow 3 to 5 well-spaced branches to develop into the main structure of the tree. Afterwards, only maintenance pruning is required to remove dead wood.

Trees generally require minimal care, but in orchards, intensive cropping is practiced as grafted trees bear within 3 to 4 years. Size control measures include close spacing (about 500 trees/ha) and pruning to rejuvenate the fruiting wood.

In pure stands raised from seed, trees should be

spaced at 13 by 13m, or slightly less in vegetatively propagated plants as they grow smaller than seeded trees. Smaller trees are easier to harvest.

The tree may remain productive until it reaches old age, yielding up to 150 kg/tree or over 2Tonnes/ha a year.

## Products from the tree

- In the millet growing areas of Eastern and Northern Uganda, the fruits are widely used to spice up millet bread and porridge.
- The ripe fruit of the sweet type is eaten fresh, while those of the sour type are made into juice, jam and syrup. The juice has a high content of vitamin B as well as small amounts of vitamin C.



*Tamarindus indica* flowers and fruits. Pulp from the pods is rich in Vitamins B.