

DURIAN

THE KING OF FRUITS IN SOUTHEAST ASIA



national market. It is now being grown on small scale in other regions such as Australia, Hawaii and Brazil. Durian trees are sometimes said to have a lifespan of 80 to 150 years although they appear to be inherently capa-

Botanical name: *Durio zibethinus*
Plant Family: *Bombacaceae*
Common names : *durian* or *civet fruit* (English), *dullian* (Filipino), *ambetan* (Indonesian), *thurian* (Thai), *sau rieng* (Vietnam), *durio* (Spanish), *du-yin* (Burma)

As we all know that the durian is one of our favourite fruit in Sri Lanka. This I would like to gather and present some information about this wonderful fruit plant to our readers around the globe. The name of durian derived from the Malaysian word "duri" (thorn), alluding to the spiny fruit.

The durian originated in Brunei, Indonesia and Malaysia and has been known to the Western world for about 600 years. Widely known and revered in Southeast Asia as the "king of fruits", the durian is distinctive for its large size, unique odour and formidable thorn-covered husk. The Portuguese introduced to Durian to Sri Lanka in the 16th century and was reintroduced several years later. Many new types were also introduced later. In late 1800, Southeast Asian countries that were first familiarized with the plant started to grow it commercially in 20th century. Thailand is one of the main countries that export durian to the inter-

ble of living for centuries. Fruit production decreases in very old trees though the fruit quality tends to noticeably increase with age. Durian is ultra tropical and grows successfully near the equator and up to 18 degrees from the equator. It cannot be grown above an altitude of 600 m in Sri Lanka. The best altitude for the growth is between 300 - 800 m. The plant prefers well drained, light sandy or loamy soils. The tree needs well distributed rainfall of 1500 mm and above is needed but dry spells are needed to stimulate flowering.



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It requires a short dry spell of 2-8 weeks for flower induction, depending on clone. The durian tree, reaching 27-40 m in height, usually erect with short, straight, rough, peeling trunk

to 1.2 m in diameter and irregular dense or open crown of rough branches and thin branchlets coated with coppery or

gray scales when young. The evergreen, alternate leaves are oblong - lanceolate, rounded at the base, abruptly pointed at the apex, leathery, dark green and glossy above, silvery or pale-yellow and densely covered with gray or reddish brown, hairy scales on the underside. The size of a leaf is around 6 - 25 cm long and 2.5 - 9 cm wide.

Durian flowers are strongly fragrant, 50-70 mm long and grow in stalked clusters of 1-45 individual flowers per cluster. These clusters are together on large branches and directly on the trunk with each flower having a calyx (sepals) and five petals. It takes about one month for a durian flower to develop from first appearance as a tiny bud to an open blossom. Durian trees have one or two flowering and fruiting period per year though timing varies depending on the species, cultivars and localities. The flowers are large and feathery with copious nectar and give off a heavy, sour and buttery odour. Durian flowers show a high degree of self-incompatibility and have to be cross-pollinated with other trees to set fruit. These features are typical of flowers pollinated by certain species of bats that eat nectar and pollen. According to research carried out in Malaysia in the 1970's, durians were pollinated almost exclusively by cave fruit bats or moths. Honeybees are seen on the flowers too early in the afternoon to serve as pollinators. Natural pollination is possible only at night, the heavily fragrant flowers opening in late afternoon and being receptive from 5 pm until 6 am.



Durian Icecream

Durian flowers are usually closed during the daytime. In Sri Lanka, the durian generally blooms in March and April and the fruits mature in July and August.

Durian trees can be propagated by seeds (common method) or bud-grafts. Durian trees grown from seed begin to bear fruit at 8-10 years. Grafted trees begin to produce fruits at 4-6 years. It takes about 110-120 days from flowering to harvest. The durian fruit can hang from any branch and matures roughly three months after pollination. The fruit can grow up to 30 cm long and 15 cm in diameter and typically weighs one to 3 kg. It shape ranges from oblong to round, the colour of its husk green to brown, and its flesh pale yellow to red depending on the species. Handling without gloves can be painful. Inside there are 5 compartments containing the creamy-white, yellowish, pinkish or orange coloured flesh arils and 1 to 7 chestnut like seeds, 2-6 cm long with glossy, red-brown seedcoat. Seeds lose viability within 2 weeks. Durians fall to the ground when fully ripe, usually during the cooler temperatures of the night. As many as 100 fruits or even more are produced on a healthy mature tree in a single season. Animals involved in the propagation of durian include elephant, deer, monkeys, tiger, civet cat, rhinoceros. They are attracted by the durian scent and may ingest the seeds while feeding on the arils, thereby dispersing them. The durian is somewhat similar in appearance to the jackfruit, an unrelated species.

Propagation

Durian seeds lose viability, especially if exposed even briefly to sunlight. Even in cool storage they can be kept only 7 days. Viability can be maintained for as long as 32 days if the seeds are surface-sterilized and placed in air tight containers and held at 200C. Seeds washed, dried for 1 or 2 days and planted have shown 77-80% germination. It is reported that, in some countries, seedling durian trees have produce fruit at 5 years of age. Neither air layers nor cutting will root satisfactorily. Selected cultivars are propagated by patch budding onto rootstocks 2 months old and pencil thick and the union should be permanent within 25-30 days.



Singapore's esplanade building is nicknamed the "Durian" as it resembles this

Grafted trees never grow as tall as seedlings. They are usually between 8-10 m tall.

Uses

Durians are sold whole or cut open and divided into segments, which are wrapped in clear plastic. The flesh is mostly eaten fresh. It is best after being well chilled in a refrigerator. Durian fruit is used to flavour a wide variety of sweet edibles such as traditional Malaysian candy, ice cream, biscuits, milkshakes and cappuccino. Durian ice cream is a popular dessert in Indonesia, sold at street side stall in Indonesian cities, especially in Java. Durian flesh is canned in syrup for export. It also dried for local use and export. Blocks of durian paste are sold in markets. The seeds are eaten after boiling, drying and frying or



Fruits and edible portions

roasting. In Java, the seed sliced thin and cooked with sugar as a confection or dried and fried in coconut oil with spices for serving as a side dish.

Durian fruit contains a high amount of sugar, vitamin B and C, Potassium amino acids and is a good source of carbohydrates, proteins and fats.

Durian hardwood is dark red. The relatively durable wood is used in interior construction and for making cheaper types of furniture and packing cases.

NUTRITIONAL VALUE PER 100g

Energy	615KJ
Carbohydrates	27.09 g
Fibre	3.8
Fat	5.33 g
Protein	1.47 g
Sugar	12.0
Moisture	65 g
Vitamin C	19.7 mg
Potassium	436 mg
Calcium	7.6 mg
Phosphorus	37.8 mg
Iron	1 mg

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2011 මෙවර වර්ෂ 19 වැනි වරින් වරින් ප්‍රසාදිකා ග්‍රහණයට පත්වූ ප්‍රසාදිකා විසින් ඉදිරිපත් කරන ලද 'ප්‍රසාදිකා' හි ප්‍රසංගය උත්සව භාරතීය රාමධාන සංගීතයෙන් පෝෂිත සිංහල භාවාත්මක ගීත සම්ප්‍රදායේ සදනුදේශනීය මනක සටහනක් බව කිවමහයා.

ශ්‍රී ලංකාවේ පසියෙදුන් රට උපත ලත් ප්‍රසාදිකා රූපමාලි වික්‍රමාරච්චි, ගැමි ජන විචිතය ස්වර්ගයෙන් දුන් විනිවිද පෙනෙන රසදේශනාදන අත්දැකීමට ගායකවත් බව රසික රසිකාවන්ට අවබෝධවුවාට සැකයක් නැත. තමා පාසල් ගිය අවධියේ විද්‍යා පෞතවුරුණා ගායන දක්‍ෂතා, ආලෝකමත් කරගැනීමට මහාචාර්ය සහන් නන්දසිරිගෙන් ලැබුණු පිටිවල ඉමහත් ශක්තියක් බව මෙම ගී සරණියෙන් කැපී පෙනේ.

'අතිමානවු හෙළ දියේ...' යන ගීතය තුළින් ශ්‍රී ලාංකික ශ්‍රාවකයන් වෙත පිවිසුණ අය, ශ්‍රී ලංකා ගුවන් විදුලි සංස්ථාවේ ප්‍රචිත ගායකවත් බවට පත්විය. තම ස්වාමියා සමඟ ඕස්ට්‍රේලියාව වෙත සංක්‍රමණය කිරීම නිසා ඇතැම් ශ්‍රී ලංකාවට අතිමවු මෙම ගීත කෝඩිලවයෙන් අනුපම ස්වභාව ඕස්ට්‍රේලියාවේ සිංහල ගීත ආස්වාදය බෙහෙවින් දෙනා ලත් අපූර්ව භාගයක් ලෙස හඳුන්වනු රසියෙන්. මීට පෙර සිවිනිගිලි පාඨකයන් වෙත එළිදක්වන ලද 'රන්කිරිලි' සංයුක්ත ගී සමුච්චය රසික සවන් පිනවීමට බෙහෙවින්ම

සාධකවිය. හඬ කණ රසායනයට පමණිම වින්තාකර්මණීය ගායකයෙකු හෝ ගායකාවක් විය නොහැකිය. හඬට ගැලපෙන පදනමක් වට සරලන සංගීත නිර්මාණයන් යන වෙබ්දාරම් සංකලනය රසදේශනාව ප්‍රතික කිරීමට හේතුවේ. මෙයට අමතරව ගීතයෙහි අන්තර්ගත භාවාර්ථයට ආරෝපනය වීමට ඇති හැකියාව රස උද්දීපනයට වෙළෙඹිනි පාදකවන කරුණකි. මෙවන් කරුණු විග්‍රහකර බැලීමේදී ප්‍රසාදිකාගේ ප්‍රසංගය ප්‍රතිහා පුර්ණතාවයෙන් සජීවී දුර්ලභ ගණයේ ගී සදැල්ලක් බව නොකියාම බැරිය.

ශ්‍රී ලංකාවේ ගී පද රචකයින් ලෙස ප්‍රභව ඉෂන් බුලත්සිංහල, ආචාර්ය අජන්තා රණසිංහ, ආචාර්ය ප්‍රණීත් අහසපුත්තර, දයා දු අලුවිස් හා සුනේතා රාජකරුණාගායක වැනි ප්‍රවීණයන්ගේ ගී පදනමෙන්, සංගීත ක්‍රමයේ කිරිඳිවර ප්‍රවීණයන් වන මහාචාර්ය සහන් නන්දසිරි, රේණිකා විරසිනා, නවරත්න ගමගේ, අමරසිරි විරස් හා කලනී පෙරේරා වැනිවුන්ගේ සංගීත නිර්මාණයන්ගේ පෝෂිත 'ප්‍රසාදිකා' ප්‍රසංගය, සංගීත ලෝකයේ නිරූපණ කාරක විය දුනරක් වන්නේ. ප්‍රසාදිකාගේ ගීත තේමාවට අනුගත වන්නේ අතිශය 'සංවර්ධකයා' ප්‍රසංගයේ අගය වැඩිකිරීමට හේතුවේ. ප්‍රසාදිකා වික්‍රමාරච්චිගේ සංගීත විවිධ ස්වරප්‍රකාරයන්ගේ සාර්ථක වේවා

ආචාර්ය උඩයසිරි විජයනන්ද වික්‍රම සිවිනි, ඕස්ට්‍රේලියා