

Highlight on some Heritage Trees

Angsana Tree (*Pterocarpus indicus*) at Upper Serangoon Road

This tree of about 60 years old, is found on the side-table of Upper Serangoon Road, between Woodleigh Park and Woodleigh Close. With a girth of 7.7 m, this is one of the largest roadside trees in Singapore. Instead of allowing the widening of drainage channel to encroach into the side-table where the tree is sited, the tree was saved from the axe by realigning the drainage channel under the road surface.

A large tree with a dense, wide-spreading and drooping dome-shaped crown. Angsana was introduced to Singapore for roadside plantings in the early years of the Garden City Movement as it is fast-growing and also provide good shade for pedestrians. This is clearly evident as one takes a walk down Angsana-lined Orchard Road from Liat Tower to Ngee Ann City.

The faintly fragrant flowers are yellow and in large bunches. The floral buds develop inconspicuously until the right stimulus triggers the entire crown to bloom in yellow simultaneously. The flowers last only for one day. Subsequently, they will rain down the next morning, laying yellow carpets by the road and car parks.

Madras Thorn (*Pithecelobium dulce*) at Fort Canning Park

This is a small to medium-sized tree from Tropical America. It can grow up to about 15 m tall and has a bushy crown.

The twigs are thorny from the pairs of spine-like stipules. Young leaves are pinkish brown. Flowers are greenish white, in erect terminal panicles. The rose-red seeds are covered by thick white pulp, with the sweetish pulp being edible. Birds feed on it. It is also through the birds that the seeds are dispersed.

Madras Thorn is relatively resistant to fire and resprouts rapidly by basal or aerial shoots. Its dense crown also makes it an ideal tree for topiary or hedge planting.

Rain Tree (*Samanea saman*) at Fort Canning Park

A South American legume tree introduced into this region before 1876. The tree at Fort Canning Park is more than 70 years old with a girth of about 6.5 m and a height of 36 m. The tree is located along the 14th Century Walk, near the Keramat that is believed to be the burial ground of Sultan Iskandar Syah, a ruler of Temasek.

The Rain Tree is commonly planted throughout Singapore for shade. It is a lofty tree with a massive umbrella-shaped and wide-spreading crown. This tree species is used along major roads or expressways of Singapore to create an avenue or 'green tunnel' effect. Examples are East Coast Parkway and Connaught Drive. The flowers are borne in clustered heads, and are slightly fragrant, with showy pinkish and whitish stamens. The leaves have a habit of folding up at dusk or before an impending shower, when the sky is overcast, giving rise to its common name, Rain Tree.

Interestingly, the Malay name for the Rain tree is Pukul Lima (Five o'clock), a reference to the closing of the leaves before sunset.

The trunk and branches of mature Rain Trees often play host to beautiful epiphytes such as the Pigeon orchids with elegant white flowers, Stag's horn ferns and Bird's nest ferns. The flesh of the pods is sweet and edible. In some parts of the world, the pods are sometimes ground up and converted into fodder or into alcohol, as an energy source.

And for the movie-buffs among us, it was reported that the tree house in Walt Disney's "Swiss Family Robinson" was built in a Rain Tree 60 m tall and 80 m in crown diameter!

Flame of the Forest Tree (*Delonix regia*) at Fort Canning Park

This legume tree is native to Madagascar. It lays hidden in the island of Madagascar until 1820, when the Austrian botanist, Wenzel Bojer discovered it and introduced it to Mauritius. From there, the copious and hardy seeds were distributed throughout the tropics. It was introduced to Singapore around 1840.

It is commonly referred to as the "Red Flame" or "Flame of the Forest". The tree gets its name from the flaming-red flowers that cover the entire crown when they are in full bloom, allowing it to stand out among other trees in the forest. It has also been referred to as the "Flamboyant Tree". The flaming-red flowers are delicately scented and arranged in dense bunches. The flower can be easily recognised by the prominent uppermost petal, referred to as the standard petal, which is streaked with yellow or yellow-and-white. Unfortunately the flowers last only a few days and the standard petals curl up and fade on the evening of the first day.

The Red Flame is a medium to large-sized deciduous tree and has a characteristic broad umbrella-shaped crown of fine feathery foliage. The tree located at Fort Canning has a girth of 3.4 m and is estimated to be about 50 years old. It is also the largest Flame of the Forest tree that we know of in Singapore.

Fast growing, especially in the first 10 years, this tree is often planted for its brilliant flowers, which can cover the entire tree for weeks at a time. However, flowering is not always gregarious in Singapore, and only a few trees may be flowering at any one time. The Flame of the Forest is a good shade tree for planting in parks and open spaces due to its broad-spreading crown. In mature tree, the trunk is often gnarled near the base. The bark of the tree is also claimed to have a medicinal effect of reducing fever.

Ironically, while the Red Flame is cultivated for ornamental plantings in tropical cities and streets, it is believed to be in danger of extinction in its native habitats due to deforestation.

Bodhi-Tree (*Ficus religiosa*) at Pearl's Hill City Park

This tree, also known as the pipal tree, is located at the hilltop of Pearl's Hill City Park, a peaceful green retreat from the hustle and bustle of Chinatown. It is a deciduous tree with fresh green new foliage, gradually yellowing. The leaves are long-stalked, more or less heart-shaped with a long tip and thinly leathery. Young leaves are pinkish in colour.

The fruits are in the form of figs, wide sessile, round and ripening greenish yellow, then purple. They are a food source for the birds, with the seeds being distributed by the birds. Young plants often develop on the roofs of houses.

The Bodhi-tree is regarded as sacred to Hindus and Buddhists. It is claimed that underneath the tree, Buddha received his enlightenment.

Saga Tree (*Adenanthera pavonina*) at Botanic Gardens

Saga is a medium-sized tree, usually between 15 - 20 m tall, with a rounded, spreading and uneven crown. The tree is endemic to Southeast China and India. It has been introduced throughout the humid tropics and has become naturalized in Malaysia, Africa and the island nations of the Pacific and the Caribbean. Due to its fast growth and its open spreading crown, Saga is suitable as a shade and ornamental tree in parks and large gardens.

The flowers are light creamy yellow to orange, with a sweet fragrant smell. Individual flower is small and star-shaped, with five tiny petals. The pods are narrow and curved. As they ripen, they turn from green to dark brown, and they coil up and split open to release 8 - 12 seeds. The seeds are bright red, hard, shiny and slightly heart-shaped. They are very similar in size and uniform in weight, with about 4 seeds making up one gram! Due to their relatively uniform weight and size, Saga seeds were widely used in the past as weight measures for gold and silver.

Saga seeds are also used in a traditional game called "Chongkak". The game involves 2 players and the use of a 'boat-shaped' board, with 2 parallel rows of holes and 2 large receptacles at both ends, called the 'rumah' or house. The player who collects the most seeds is the winner.

These days, the bright red seeds are still gathered to make into beads, necklaces and decorative ornaments. The seeds can also be roasted and eaten, and are said to taste like soybeans. The hard reddish timber, sometimes known as red sandalwood, has a close and even grain and is useful for cabinetry, home building, furniture and decorative wood products. It is also valued as a fuelwood, and when powdered, can be used to make a red-coloured dye.

Kapok Tree (*Ceiba pentandra*) in Singapore Botanic Gardens

Commonly known as Kapok Tree or the White Silk-Cotton Tree, the Kapok Tree at the Singapore Botanic Gardens was planted in 1933. It has a girth of 6.2 m and a height of 43 m.

The Kapok tree is one of an important collection of economic plants cultivated throughout the Botanic Gardens. Its most characteristic feature is the thorny, buttressed trunk that unfolds branches at irregular angles. This tree is one of the tallest trees found in the tropical rainforest,

capable of reaching 30 – 70 m in height and is often seen towering over other forest trees. It is commonly found in West Africa, Tropical America, India and Southeast Asia.

The inconspicuous flowers are up to 3 cm in size, with 4 - 5 petals and are usually pale yellow, pink or white in colour. The flowers have a milky smell and open after sunset, in time for the bats to arrive. The bats drink the nectar from the flowers and help to pollinate them. The fruits are oblong, smooth, light green capsules of about 10 – 20 cm in size and split on ripening to reveal the woolly cotton-like substance.

This tree used to be grown for its cotton or kapok, which was formerly used for stuffing cushions, pillows, mattresses and life jackets. Kapok oil can also be made from the seeds of the tree and is then used to make soap. The seeds are edible and are eaten in some parts of the world.

It is claimed that the town of Ceiba in Puerto Rico is named after the Kapok tree - *Ceiba pentandra*, presumably in admiration of the majestic architecture of the tree!

Tembusu Tree (*Fagraea fragrans*) in Singapore Botanic Gardens

A beautiful and impressive tree, the Tembusu tree is a native of Singapore. Featuring attractive dark brown fissured bark, the Tembusu thrives even in poor site conditions including poorly-aerated and ill-drained soil.

Two of the Tembusu trees in the Singapore Botanic Gardens are designated as Heritage Trees. Both are estimated to be more than 100 years old. The first Tembusu tree is located in 'Palm Valley', with a height of 42 m and a girth of 7.8 m. It would take six adults, joining hand-in-hand, to encircle this tree! The second Tembusu tree has a girth of 5.3 m and probably stood there before the Gardens was first laid out in 1859. This old Tembusu tree has a long low branch on which people often sit. It has also become a favourite photographic backdrop for married couples, families and overseas visitors. Its image has been captured on the back of the Singapore \$5 currency notes that featured the portrait of the late President Yusof bin I shak.

Tembusu flowers are creamy white, turning yellow with age. The tree tends to bloom twice a year with the flowers unfurling at sunset and are strongly fragrant. The fruits are rounded berries turning from green to orange or red and are eaten by birds and flying bats. The wood of the Tembusu is very hard and durable and can be used to make chopping boards, bridges, boats, parquet flooring, and furniture.

Tamarind (*Tamarindus indica*) at Surin Ave Park

Tamarind is also known as the Asam tree or Asam Jawa in Malay. It is a medium to large tree with drooping branches and a dome to umbrella-shaped crown of light green foliage. The fern-like pale-green leaves give the tree a light and airy appearance. Tamarind is widely cultivated and has become naturalized in many parts of the tropics throughout the world. However, it is believed to have originated from Africa and West Asia.

The small inconspicuous flowers are about 2 cm across, pale yellow with purple or red veins. They have five unequal lobes and borne in small drooping clusters.

The fruits are long, brown, thick, velvety pods, about 5 - 15cm long, and contain several hard and flat seeds surrounded by a juicy pulp. The pulp that surrounds the seeds is both sweet and sour and commonly eaten as fruit preserve - tamarind or "asam". The sour pulp is commonly used for cooking, such as in fish curry.