

Erythrina indica

Lam.

Fabaceae - Papilionoideae

LOCAL NAMES

Bengali (palte, madar); Burmese (kathit); English (Indian coral tree, coral tree); Hindi (pangri, dadak); Malay (dedap); Tamil (mulu murungu)

BOTANIC DESCRIPTION

Erythrina indica is a medium-sized, spiny, deciduous tree normally growing to 6-9 m (occasionally 28 m) tall and 60 cm dbh. Young stems and branches are thickly armed with stout conical spines up to 8 mm long, which fall off after 2-4 years; rarely, a few spines persist and are retained with the corky bark. Bark smooth and green when young, exfoliating in papery flakes, becoming thick, corky and deeply fissured with age.

Leaves trifoliate, alternate, bright emerald-green, on long petioles 6-15 cm, rachis 5-30 cm long, prickly; leaflets smooth, shiny, broader than long, 8-20 by 5-15 cm, ovate to acuminate with an obtusely pointed end. Leaf petiole and rachis are spiny.

Flowers in bright pink to scarlet erect terminal racemes 15-20 cm long; stamens slightly protruding from the flower.

Fruit a cylindrical torulose pod, green, turning black and wrinkly as they ripen, thin-walled and constricted around the seeds.

There are 1-8 smooth, oblong, dark red to almost black seeds per pod.

Erythrina comes from the Greek word 'eruthros' meaning red, alluding to the showy red flowers of the *Erythrina* species.

BIOLOGY

In India, the rich, red blooms make their striking appearance among the leafless branches in January-March. The short lived flowers are quickly followed by the new leaves in early summer. A coral tree in full bloom is like an aviary. Crows, Mynahs, rosy-pastors, babblers and parakeets, as well as numerous bees and wasps swarm round to eat nectar, pollinating the trees. Soon after flowering, the big green pods begin to form.



flowers (TopTropicals.com)



leaves (TopTropicals.com)



tree (TopTropicals.com)

ECOLOGY

E. indica is indigenous to the low-elevation deciduous forests of South Asia, found widely scattered throughout the region on plains and undulating terrain up to about 750 m elevation.

The tree occurs in a wide range of soils frequently on deep alluvial loams, silts and clays. On gravelly skeletal soils, its growth is normally stunted. It is somewhat frost-sensitive, tender shoots dying back but quickly re-grows under favourable conditions.

Preferred rainfall is in the range 500-1500 mm annually; survives with less when planted along water courses or irrigation channels

BIOPHYSICAL LIMITS

Altitude: Upto 750 m

Mean annual rainfall: 500-1500 mm

Mean annual temperature: 19-27 deg.C

Soil type: Tolerates a wide range of soils frequently on deep alluvial loams, silts and clays but also on gravelly skeletal soils, where growth is stunted.

DOCUMENTED SPECIES DISTRIBUTION

Native: India

Exotic: Malaysia, Myanmar, Thailand



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS

Food: The new leaves are eaten in curries

Fodder: Used as livestock fodder when lopped as it is rich in nitrogen (4% of dry weight)

Fibre: the bark is stringy and provides a strong fibre that is used in rope making.

Medicine: the bark decoction is used in stomach disorders, anti-abortion treatment, malarial fever and liver problems

Timber: The wood is light, soft, does not split and neither warps, making it suitable in applications where heavy wood is unsuitable such as in small curved articles.

Tannin and Dyestuffs: A red dye is extracted from its flowers.

SERVICES

Shade or shelter: It is often planted as a shade tree in cacao and coffee plantations in Southeast Asia

Soil improver: Provides green manure and mulch after pruning

Ornamental: *E. indica* is a large handsome tree. It flowers at 3-4 m tall, making it a popular garden or park plant

Boundary or barrier or support: In India, it is planted as a live hedge around cultivated gardens. When the cuttings are stuck on the ground, they root quickly to give live hedges. It has been used in India as support for pepper and grape vines, by virtue of its quick growth and suitable bark. Moreover, during the hottest months, its crowded foliage gives deep shade to the vines, keeping them moist, whereas during the cooler months, the leaves fall, exposing the vines to sunlight.

GERMPLASM MANAGEMENT

The seed storage behaviour is orthodox. Seeds germinate well (60-75% for fresh seeds); they can be stored for a long time if kept in cool, dry and insect free conditions. There are about 4500-6250 seeds/kg.

FURTHER READNG

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SUGGESTED CITATION

Orwa C, A Mutua, Kindt R, Jamnadass R, S Anthony. 2009 Agroforestry Database: a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp>)