

Tree Species No. TTS10

Erythrina variegata, Family Eriosema

E. variegata is a fast growing, medium-large deciduous tree. It has greenish-yellow smooth bark that is covered in prickles and the pinnate leaves are light green. It is a perennial tree that can live between 80 and 100 years and is suited to humid and sub-tropical regions. *E. variegata* can improve soil fertility because it fixes nitrogen in the soil. It is commonly planted in rows with other crops. The Indian coral tree also has pesticidal properties. It acts as a growth inhibitor to *Dysdercus cingulatus*, the cotton stainer, and the leaves and sap are noted for insecticidal properties against maggots.

Synonyms: *E. corallodendron var orientalis*, *E. indica*, *E. variegata var orientalis*.

Common names: Indian coral tree, tropical coral tree.

Distribution: The Indian coral tree is native to the coasts of India and Malaysia. It can now be found throughout India and is being introduced to many parts of Africa for use in agroforestry.

Ecology

Rainfall: 800-1500mm (maximum 2000mm) With a rainy season of 5-6 months.

Temperature: 19.3-31°C.

Altitude: 0-1500m.

Soil type: Prefers deep well drained sandy soils but grows well on a wide range of soils. It will not tolerate prolonged waterlogging of more than two weeks.



Botany

Height: 15-20m, but may reach 25m.

Diameter at breast height: Reaches 50-60cm in just 15-20 years.

Flowers: The flowers are large, 5-7cm long and 2-3cm wide, and scarlet or orange-red. They usually appear after the leaves have been shed.

Fruit: The pods are thick and black, 1.5 to 2cm wide and 15 to 20cm long. Each contains 5 to 10 egg-shaped seeds. These are glossy brown, red or purple and are 6 to 10mm in diameter and 12 to 17mm long

Uses

Main: In India it is commonly used as a support crop for climbing plants such as betel (*Piper betle*), black pepper, vanilla, grape and yam and is also used to provide shade for coffee and cocoa. It is used as a living fence because of its fast growth and easy establishment from stem cuttings and is often used as a windbreak because it has a strong root system. The Indian coral tree can fix nitrogen in the soil and so is commonly used for soil improvement.

Others: Fodder, green manures, timber, pulpwood, herbal medicine, fibre and dyes. The leaves can be eaten by humans and it is often used as an ornamental tree.

Cultural instructions

Erythrina variegata is commonly pollinated by birds and it can be grown from seed or stem cuttings.

Pre-treatment: Soak the seeds in hot water at 80°C for 10 minutes or, for better results, soak scarified seeds overnight.

Germination: Usually germinates in 8-10 days.

Management: This is also dependant on use, if for example, it is used as a support crop for the betel vine, it should be planted 3-4 months before the main crop is planted out. When used as a shade tree for coffee it should be pollarded at 2-3m yearly.

Spacing: Spacing depends upon what the trees are going to be used for. If the trees are being planted as supports for the betel vine then it should be spaced approximately 2 x 3m apart. If however it is intended as a shade plant for coffee then it can be spaced 8 to 10m apart.

Other

Pest and diseases: There does not appear to be any serious pests of the Indian Coral tree, however when planted on pepper plantations, root damage by *Rhaphipodus* has been identified. On coffee plantations in Tamil Nadu, India, the psyllid *Terastia meticulosalis* has caused damage.

Limitations: This species is a host to the fruit piercing moth *Othreis fullonia*, a destructive insect pest in the Pacific region. The larvae feed on the tree and the adults ' pierce ' important commercial fruits such as oranges, guava, papaya, banana and grapes, causing serious economic losses. The light wood, with 60 to 65% moisture content, is not useful as a fuel. Even when dry, it produces smoke when burned.

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