

MENISPERMACEAE

Coscinium fenestratum (Gaertn.) Colebr. [= *Menispermum fenestratum* Gaertn.]

Vernacular names: Hindi - Jhar-i-haldi; Sanskrit - Daru-haridra; Tamil - Mara-manjal.

Trade names: Tree turmeric



Coscinium fenestratum (Gaertn.) Colebr.

long. Flowers yellow. Fruits drupes, 1 – 3, globose or subglobose, 2.6 – 3 cm across, brown, orange or yellow, tomentellous. Seeds whitish, sub-globose, peltate, enclosing condyle.

Fl. & Fr.: August - October.

Parts used commercially: Woody stem, used in Ayurveda, Siddha, Tibetan and Folk medicine.

Medicinal properties and uses: Though roots and stems of this plant are having medicinal properties, mostly dried woody stem of this plant is sold in the crude drug market. The dried woody stems of the plant constitute the drug. In action, root and stem of this plant is anti-inflammatory, antiseptic, antipyretic, antiperiodic, tonic and stomachic.

The stem is used to treat tastelessness, bleeding piles, cough, wounds, ulcers, skin diseases, abdominal disorders, jaundice, liver disorders, intrinsic haemorrhage, diabetes, snake bite, fever and general debility. It is also used in cases of suppression of lochia, continued and intermittent fevers and certain forms of dyspepsia.

The woody stem contains an alkaloid Berberine. Due to the antiseptic properties, it is used to dress wounds and ulcer. The stems yield a yellow dye, which is used singly or in combination with turmeric.

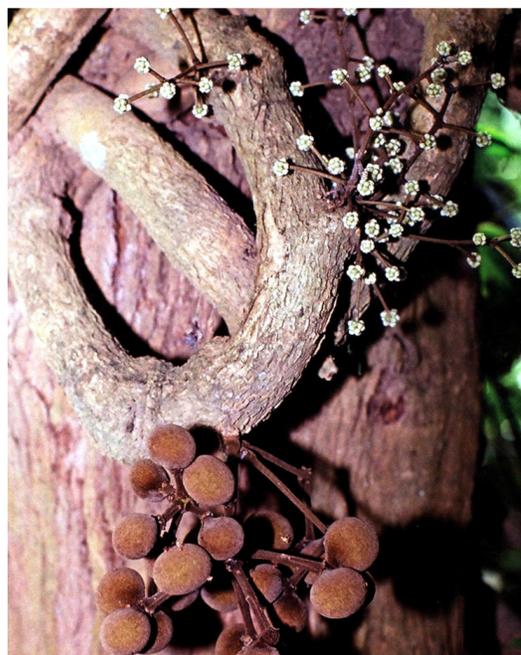
Substitutes and adulterants: It is stated that it may be used in place of Cinchona, Gentian, Columba and Berberis. Further, it is considered a fairly good substitute for Ceylon (now Sri

Distribution: INDIA - Restricted to South West India, chiefly in Western Ghats regions of Tamil Nadu (Kanniyakumari, Tirunelveli and Nilgiri districts), Kerala (Thiruvananthapuram, Wynaad, Thrissur, Idukki and Palakkad districts) and Karnataka (Kodagu, Udupi, Dakshina and Uttara Kannada districts) between the altitudinal ranges of 500 – 750 m; SRI LANKA; Peninsular MALAYSIA; THAILAND; CAMBODIA; VIETNAM; SUMATRA; WESTERN JAVA and BORNEO.

Habitat: Mostly in the high rainfall wet evergreen forests, semi-evergreen and semi-deciduous forests.

Population status / Cause for RET : Critically endangered in the wild. The threats are because woody stem is collected mostly from the wild for its medicinal properties. In addition to this, rampant destruction of forests and very slow rate of regeneration of this species are major causes for the depletion of this species in the wild.

Description: Lianas with yellow wood and sap, up to 10 m long; bark yellowish, densely hairy when young. Leaves simple, alternate, ex-stipulate, broadly ovate, rounded, truncate or shallowly cordate at base, acuminate at apex, 10 – 32 x 8 – 22 cm, glabrescent above, white tomentellous beneath, thinly coriaceous, main nerves 5 – 7; petioles 3 – 16 cm long, conspicuously swollen at both ends. Inflorescence supra-axillary racemes or on old leafless stems, up to 11 cm



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Photo Courtesy: K. Ravikumar, FRLHT

Lanka) Columba [*Jateorhiza palmata* (Lam.) Miers], which is employed in veterinary medicines. Hence, this plant is referred to as false Columba.

The root, root bark and stem of *Berberis aristata* DC (Berberidaceae) and the root, stem and stem bark of *Coscinium fenestratum* (Gaertn.) Colebr. (Menispermaceae) are used in Indian systems of medicine. However, the former drug plant is considered as genuine and the latter as substitute.

Cultivation practices: FRLHT, Bangalore, in collaboration with the Forest Department of Kerala has established a Medicinal Plant Conservation Area (MPCA) at Kulamavu in Idukki district of Kerala, exclusively for the conservation of this endangered plant species.

In the wild, it grows well in humus rich soil having good drainage and areas having more than 2000 mm rainfall with an annual mean temperature of 27°C. It is a slow growing plant and it takes about 15 years to reach its reproductive stage. The germplasm of this rare plant species can be maintained in botanic gardens etc. for posterity. The plant can be regenerated from stumps of old plants and also through seeds, but the rate of regeneration is found to be extremely low. Seeds have a dormancy period of 6 months. The fresh stem cuttings of pencil size with about 15 cm length are suitable for vegetative propagation.

Commercial / Ex-Im data: It is traded mostly in local, regional and national markets. Due to massive demand in crude drug market, the woody stem of this plant is being over-exploited from the wild sources. Traders directly engage local people and/or tribals and collect the woody stem illegally from the forest. In retail crude drug market of Kerala, the dried stem is sold for Rs. 60/- per kg.

Legal: Included in Negative List of Exports.

References: Selvam, A.B.D. (2012). Pharmacognosy of Negative Listed Plants. Pp. 37-47.