

Cedrela serrata

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Species identity

Taxonomy

Current name: *Cedrela serrata*
Authority: Royle
Family: Meliaceae

Synonym(s)

Toona serrata (Royle) Roem.

Common names

(English) : hill toon
(French) : acajou indien
(Nepali) : dallo

Botanic description

Cedrela serrata is a moderate-sized deciduous tree, in favourable situations attaining a height of 30 m and a girth of up to 3.3 m. Young plants often remain unbranched for the 1st few years and have very long, arching leaves, giving them a palm like appearance. Twigs stout, with the leaves towards the ends of the branches, leaving large and prominent heart-shaped leaf scars. Bark about 1.3 cm thick, dark-brown, rough, with regular and fairly deep vertical fissures about 2.5 cm apart. Blaze fibrous throughout, pink or red. Leaves 0.5-0.9 m long, sometimes 1.35 m long in young trees, usually imparipinnate, midrib usually reddish, at least when young. Leaflets 13-33, opposite, 7.5-20 cm x 2.5-6.2 cm, elliptic-oblong or oblong-lanceolate, acutely acuminate, serrate, base oblique, glabrous or pubescent on the nerves beneath when young, emitting a foetid smell when bruised; petiolules 0.2-1.3 cm long. Flowers 0.4-0.5 cm long, foetid, pink to nearly white, in large, drooping subterminal panicles 0.6-1.5 m long; calyx small, dentate. Petals about 0.5 cm long, elliptic-oblong, obtuse, glabrous. Capsule 2.5-3.8 cm long and 1.3 cm in diameter, ovoid, reddish-brown. Seeds winged at the upper end only. The genus *Cedrela* is included in the tribe Cedreleae of the sub-family Swietenioideae, as is the genus *Toona*. All the Old World species of *Cedrela* have been transferred to *Toona*. *Cedrela* differs from the latter by its prominent androgynophore with petals and filaments adnate to it, the cuplike calyx, the bigger and more woody capsule, and seedlings having entire leaflets. The specific name, 'serrata', comes from 'serra' (a saw), referring to the toothed leaf-margins.

Ecology and distribution

History of cultivation

In Sri Lanka, *C. serrata* has been introduced as a shade tree in tea plantations; it is also very largely planted for the same purpose in coffee plantations in Java. In Java it is often cultivated in the hills as an ornamental tree.

Natural Habitat

It is common in secondary forests; normally in association with *Quercus incana*, *Q. dilatata* and *Euonymus pendulus*. It requires moist but well-drained ground and is common in ravines, often on broken rocky soil, in places where subsoil moisture is not available.

Geographic distribution

Native : India, Indonesia, Myanmar, Sri Lanka
Exotic : Kenya, Malawi, Nepal, Rwanda, Uganda

Biophysical limits

Altitude: 1 200-2 400 m, Mean annual temperature: 5-45 deg. C, Mean annual rainfall: 1 250-2 500 mm Soil type: Requires well-drained soils.

Propagation and management

Propagation methods

Natural regeneration comes up readily on landslips, among loose boulders, or wherever new ground is exposed,

particularly on the sides of ravines where there is adequate moisture. Artificially, it can easily be propagated from seed.

Tree Management

C. serrata demands strong light. It produces root suckers in great abundance and coppices fairly well. The tree has a small crown and should therefore be grown in fairly dense crops, although overhead cover should be avoided or crooked stems may result as the tree tries to reach the light. Growth is fast when young, but the tree rarely attains a large girth; a rotation of 50 years is suitable.

Germplasm Management

Seeds weigh 95 000-219 000/kg.

Functional uses

Products

Fodder: The leaves and young shoots are lopped for cattle fodder. Timber: The wood is used for furniture, bridges, poles, packing cases, plywood, door and window shutters, ceiling boards, planking, toys and musical instruments.

Services

Shade or shelter: In Sri Lanka, it is planted as a shade tree in tea plantations and also in coffee plantations in Java. Ornamental: *C. serrata* is planted in the hills in Sri Lanka and Java as an ornamental.

Pests and diseases

Certain shot bole borers attack newly felled or fallen wood; the caterpillars of *Hypsipyla robusta* destroy the fruits; the larvae of an unidentified insect cause defoliation.

Bibliography

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