

Cedrela serrata

surian, Chinese toona

Royle

Meliaceae

LOCAL NAMES

Burmese (taungdama); Chinese (hongchun,xiangchun,chunhua,mapaozishu,xiangchunshu); Dutch (cedrel); English (Chinese Toona,Chinese mahogany,hill toon); French (cedre de Chine,Acajou de Chine,acajou indien,cedrele de Chine); German (Chinesischer Surenbaum); Hindi (drawi,dalli,durla,khishing); Indonesian (suren); Italian (cedrela della China); Japanese (toona shinenshisi); Nepali (dallo); Trade name (Chinese toona,surian)

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.

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ECOLOGY

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.

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.

DOCUMENTED SPECIES DISTRIBUTION

Native: India, Indonesia, Myanmar, Sri Lanka

Exotic: Kenya, Malawi, Nepal, Rwanda, Uganda



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.

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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.

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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.

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.

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FURTHER READNG

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SUGGESTED CITATION

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