

## Haematoxylum campechianum

L.

Fabaceae - Papilionoideae

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### LOCAL NAMES

English (logwood, campeachy wood, bloodwood tree); French (bois bleu); Spanish (campeche)

### BOTANIC DESCRIPTION

*Haematoxylum campechianum* is a small bushy tree up to 15 m tall, but usually smaller, often thorny and gnarled; trunk irregularly fluted and contorted, attaining a length of 2-3 m and a diameter of 60 cm, although usually much less, prolonged into large, rather long and straight branches, bark grey to brown, rather smooth, peeling in flakes.

Leaves alternate, paripinnate, distichous or fascicled on very short branches; stipules partly spine-like; leaflets in 2-4 pairs, obovate or obovate, 10-35 mm x 5-25 mm, acute at base, emarginate at apex, closely veined and glabrous.

Flowers in 5-20 cm long racemes in the axils of present or fallen leaves, 5-merous, sweet-scented; calyx 4-5 mm long, deeply lobed; petals 5-7 mm long, bright yellow; stamens 10, free; ovary superior, shortly stalked, glabrous; style filiform.

Fruit a lanceolate, extremely flattened pod, 3-5 cm long, pointed at both ends, dehiscent not along the sutures but along the median of the sides, usually 2-seeded.

*Haematoxylum* L. ('bloodwood') is a small genus with about 4 species. It is indigenous to Central America and southern Africa. In Central America 2 species are usually distinguished, both producing a dye in the wood. Only *H. campechianum* has spread over most of the tropics. In Central America logwood trees which do not produce haematoxylin have been found. They are referred as 'bastard logwood'.

### BIOLOGY



Leaves (Dan Skean, Jr., June 1993)

**ECOLOGY**

Logwood is a lowland species which may grow under very different conditions. In Central America it grows best in flat marshy areas often inundated by rivers. In the West Indies, the best wood is common on exposed limestone hillsides in dry secondary thickets.

**BIOPHYSICAL LIMITS**

Soil types: Logwood prefers light soils with some humus.

**DOCUMENTED SPECIES DISTRIBUTION**

Native:

Exotic: Fiji, Indonesia, Malaysia, Philippines, Singapore



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**

Apiculture: The flowers are the source of a very good honey.

Fuel: The wood burns readily.

Timber: The wood is very hard and heavy, with an air-dry weight of 950-1085 kg/m. The sapwood ring is thin, white or yellowish, and does not contain haematoxylin; heartwood turns bright reddish on exposure. It is compact, with interlocked grain and a coarse texture but fairly even. It has an agreeable odour resembling violets, and a sweet astringent taste. As timber its use is largely limited by the irregularity of the trunk. The wood is strong but brittle; it is durable for use outdoors and in contact with the ground. It is sometimes used for furniture and fancy articles because it may be finished to a very smooth surface and takes a high polish.

Tannin or dyestuff: The main product of the tree is the heartwood; it is the logwood of commerce. This wood yields a series of dyes in darker tints of grey, brown, violet, blue and black. The dyes give a fairly permanent colour to several fabrics such as silk, wool, and sometimes cotton, but also to synthetics such as nylon and rayon. They may be used to dye leather as well as fur, feathers, paper and bone, and also in the manufacture of inks. Haematoxylin, the colouring agent of logwood, is a histological stain used for staining cell nuclei; alcoholic solutions serve as indicator for alkaloid titration.

Medicine: Medicinally it is a mild astringent and tonic, it is prescribed in the form of a decoction and liquid extract. It is also useful against diarrhoea, dysentery, atonic dyspepsia and leucorrhoea. An ointment prepared from the wood is said to be useful against cancer and hospital gangrene. Haematoxylin has been shown to possess anti-inflammatory properties.

**SERVICES**

Ornamental: Logwood is grown in gardens for its delicate foliage and fragrant flowers.

Boundary or barrier or support: In India and South-East Asia, logwood is occasionally cultivated as hedge plant.

**TREE MANAGEMENT**

Logwood grows slowly, but cultivation is easy. With favourable growing conditions, the trees attain harvestable size in about 12 years.

**GERMPLASM MANAGEMENT**

**PESTS AND DISEASES**

**FURTHER READNG**

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**SUGGESTED CITATION**

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. *Agroforestry Database:a tree reference and selection guide version 4.0* (<http://www.worldagroforestry.org/af/treedb/>)