



Commercial names:	engl.: Lignum vitae, Bastard lignum vitae, Hollywood lignum vitae esp.: Guayacán blanco, Lignum vitae fr.: Gaïac
Common names:	Guayacancillo, Vera, Vera blanco
Scientific synonyms:	<i>G. verticale</i> Gómez Ortega, <i>G. guatemalense</i> Planchón ex Rydberg
Subject to CITES regulations:	All parts and derivatives, except seeds, spores, pollen (including pollinia), seedling or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers and cut flowers of artificially propagated plants.
Macroscopic characteristics of the wood:	<p>Wood dark brownish green, diffuse porous, growth rings distinct. The sapwood and heartwood are very distinct. The sapwood is pale yellow in colour. The heartwood is light to dark olive (green to brownish green) with dark veins. The sapwood is wider in <i>G. sanctum</i> than in <i>G. officinale</i>. The resin smells like roses. Because of its high content in an oily resin called <i>guaiaco</i>, it has a very smooth surface, similar to that of palisander. Interlaced fibres. Perfectly visible growth rings. The vessels, rays and parenchyma are not visible to the naked eye.</p> <p>Hardness: extremely hard, making it impossible to nail</p> <p>Grain: uniform and fine</p> <p>Specific weight: 1.23 g/cm³. It is one of the densest woods in trade.</p>
Microscopic characteristics of the wood:	<p>Wood diffuse porous. Growth rings well-defined. Vessels exclusively solitary, few, 20/mm² with a narrow average tangential diameter of (30 –) 75 (– 175) µm, perforation plates simple. Diminutive intervascular bordered pitting. Deposits or gum present in the vessel elements. Scanty apotracheal parenchyma and vasicentric paratracheal, aliform or confluent, arranged in layers, fusiform cells frequent. Homocellular wood rays, exclusively uniseriate, 4 – 6 cells high and distributed in layers. Axial and radial parenchyma with calcium oxalate crystals. Fibretracheids with thick walls, (440 –) 590 (– 830) µm long; tracheids sometimes present.</p>
Characteristics of the trees:	The tree grows sometimes to 15 metres high, with a cracked bark that is greyish brown in colour. The part of the tree suitable for timber is only up to 5 metres long.
Characteristics of trade:	<p>The genus <i>Guaiacum</i> is usually called lignum vitae. The name <i>guayacán</i> is also used regularly to designate other species such as <i>Tabebuia</i> (Bignoniaceae), <i>Caesalpinia melanocarpa</i> (Fabaceae) and <i>Andropogon angustatus</i> (Poaceae).</p> <p>The wood of this species is of considerable commercial importance, although preference goes to <i>G. officinale</i>. It is one of the hardest woods; its high density, oil resin content and fine grain make it important for the manufacture of bearings for axels, pulleys, pivots and rollers. It is usually exported as logs, sawn wood and finished products.</p>

Distribution:

Caribbean, Central America, southern North America, in the western part of the greater Caribbean region, from southern Central America and Central America to the north and the east through the larger islands and to the northeast from Costa Rica to Mexico (Yucatan) and east-northeast to Cuba, the United States of America (southern Florida), the Bahamas, Haiti and the Dominican Republic.

**Use:**

Bearings for the propeller shafts of ships, lath work of balls, cups, dishes, mallet heads, pulleys, pivots, washers, guides, rollers and wheels. It is also used to manufacture sports equipment, in the textile industry and for the preparation of medicines under the names: Guayaco gum, Guayaco resin, Guaiacum, Lignum vitae and Lignum sanctum.

Similar species:

There are six species of trees and shrubs in the *Guaiacum* genus found in subtropical and tropical America. Lignum vitae is usually traded without use of a scientific name at the species level.

Sometimes, this species can be identified by the origin, for example: *Guaicum unijugum* is endemic to Mexico; *Guaiacum coulteri* (synonym, *G. planchonii*) is found primarily in the Pacific Coast watershed, from northwestern Mexico to Central America. *Guaiacum coulteri palmeri* (synonym, *G. palmeri* Vail), is found only in northwestern Mexico, from northwestern Sonora to northern Sinaloa. It can also be found under the name *Guaiacum guatemalense*, which has been reported from Guatemala to Costa Rica, although it is considered to be a synonym of *G. sanctum* or a hybrid of *G. sanctum* x *G. coulteri*. In both cases, it is listed in the CITES appendices as *G. sanctum*.

The following species are also rather similar.

Latin name	Distribution	Common name
<i>Bulnesia arborea</i>	Colombia, Venezuela	Vera, Guayacán, Guayacán resino, Palo santo
<i>Bulnesia sarmientoi</i>	Argentina, Bolivia, Paraguay	Palo santo
<i>Gymnanthes lucida</i>	Central America, Caribbean	Ébano verde, Granadillo
<i>Tabebuia</i> spp.	Southern Florida, Brazil	Madera verde



