**Guaiacum sanctum: Lignumvitae¹**

Edward F. Gilman and Dennis G. Watson²

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**Introduction**

Lignumvitae is an extremely slow-growing broadleaf evergreen which ultimately reaches 30 to 40 feet in height and casts light shade, but few people have seen plants of this size because it is not grown in the trade. Most are seen 8 to 12 feet tall with a beautiful array of multiple trunks and a rounded canopy much like that of a mature Crape-Myrtle. The one to two-inch-long, leathery, dark green leaves are joined at many times throughout the year by the production of large clusters of deep blue flowers, the old flowers fading to a light silvery-blue and creating a shimmering haze over the rounded canopy. These flowers are followed by small, heart-shaped, yellow berries, appearing on the tree at the same time as the blue flowers and creating a lovely sight.

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**General Information**

**Scientific name:** Guaiacum sanctum  
**Pronunciation:** GWY-uh-kum SANK-tum  
**Common name(s):** Lignumvitae  
**Family:** Zygophyllaceae  
**USDA hardiness zones:** 10B through 11 (Fig. 2)  
**Origin:** not native to North America  
**Invasive potential:** little invasive potential  
**Uses:** tree lawn 3-4 feet wide; tree lawn 4-6 feet wide; tree lawn > 6 ft wide; sidewalk cutout (tree pit); parking lot island < 100 sq ft; parking lot island 100-200 sq ft; parking lot island > 200 sq ft; container or planter; specimen; deck or patio; Bonsai; highway median  
**Availability:** not native to North America

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Guaiacum sanctum: Lignumvitae

**Description**

Height: 8 to 12 feet  
Spread: 8 to 12 feet  
Crown uniformity: symmetrical  
Crown shape: round, vase  
Crown density: dense  
Growth rate: slow  
Texture: fine

**Foliage**

Leaf arrangement: opposite/subopposite (Fig. 3)  
Leaf type: even-pinnately compound  
Leaf margin: entire  
Leaf shape: obovate, elliptic (oval)  
Leaf venation: pinnate  
Leaf type and persistence: evergreen  
Leaf blade length: less than 2 inches  
Leaf color: green  
Fall color: no color change  
Fall characteristic: not showy

**Flower**

Flower color: blue  
Flower characteristics: very showy

**Fruit**

Fruit shape: round  
Fruit length: less than .5 inch  
Fruit covering: fleshy  
Fruit color: yellow  
Fruit characteristics: does not attract wildlife; showy; fruit/leaves not a litter problem

**Trunk and Branches**

Trunk/bark/branches: branches droop; very showy; typically multi-trunked; thorns  
Pruning requirement: needed for strong structure  
Breakage: resistant

**Current year twig color:** gray  
**Current year twig thickness:** thin  
**Wood specific gravity:** 1.09

**Culture**

Light requirement: full sun, partial sun or partial shade  
Soil tolerances: clay; sand; loam; alkaline; acidic; extended flooding; well-drained  
Drought tolerance: high  
Aerosol salt tolerance: high

**Other**

Roots: not a problem  
Winter interest: yes  
Outstanding tree: yes  
Ozone sensitivity: unknown  
Verticillium wilt susceptibility: unknown  
Pest resistance: free of serious pests and diseases

**Use and Management**

Underneath the smooth, beige/grey bark of Lignumvitae is some of the heaviest of all wood, sinking under its weight instead of floating in water. This dense wood was once popular for use in the manufacture of bowling balls and has also been used for propeller shafts on steamships, gears and for mallets. The picturesque crooked, typically multiple trunk, evergreen leaves, and beautiful flowers, and fruit would all combine to make Lignumvitae a popular choice for use as a container, patio, or specimen planting if it were widely available in a range of sizes. Unfortunately, like many other slow-growing trees, this one is not often grown in nurseries. One must travel to arboreta to view nice specimens of this tree.

Lignumvitae can be grown in full sun or partial shade on a wide variety of soils, including alkaline. Plants will easily tolerate wet or dry soil, wind, and salt, making it an ideal choice especially for seaside plantings.

*Guaiacum officinale* grows 10 to 30 feet tall, has blue or sometimes white flowers, and light to dark brown seeds.

Propagation is by seed.

**Pests and Diseases**

No pests or diseases of concern.