

Junglans olanchana Standl. & L.O. Williams

C. R. ALVARADO, C. A. ALVARADO, and O. O. MENDOZA

Jefe Programa Nacional de Viveros Forestales, Administración

Forestal del Estado, Tegucigalpa, Honduras;

Jefe Departamento de Investigación Forestal, Escuela Nacional

de Ciencias Forestales, Siguatepeque, Honduras; and

Gerenta General Semillas Tropicales, Siguatepeque, Honduras

UNGLANDACEAE (WALNUT FAMILY)

No synonyms

Cedro negro, nogal, walnut

Junglans olanchanus is distributed in the wet forests of tropical America, from southern Mexico, across Central America, to the mountain ranges in Colombia, Ecuador, and Peru. It also grows in the mountainous regions of Argentina. In Honduras, it grows in the departments of Atlantida, Colon, Yoro, Olancho, Francisco Morazan, and Comayagua (Centro Agronómico Tropical de Investigación y Enseñanza 1997a).

Junglans olanchanus is a semideciduous tree up to 40 m in height and 150 cm or more in diameter. It has a cylindrical, straight shaft that is frequently free of branches for 5 m. Occasionally, the shaft lacks branches for 10 to 15 m. It has an elongated base or one with simple, straight gambas. The crown is dense, umbellated, or multilabellate. The bark is darkish gray or brownish gray, rough, longitudinally and deeply fissured, and sometimes has cracked anastomoses, which come loose in thick, big, scaly pieces. It has long branches with foliar clusters at the end of the sprigs. The foliage is dark green in color and dense. In Honduras, it grows in wet and very wet forests, preferably in muddy, sandy, and rocky soils, most frequently on the banks of rivers and streams from sea level to 700 m (Aguilar 1966).

In green condition, the duramen is dark coffee-colored, and the alburnum is golden yellow. In dry condition, the duramen is dark coffee-colored, and the alburnum is golden brown or grayish coffee-colored. It has a faint odor and a slightly astringent taste. The wood has a straight hilum, medium texture, low shine, and soft streak. Its specific gravity is 0.49 (moderately heavy), occasionally between 0.42 and 0.50. Total tangential shrinkage is 5.5 percent; total radial shrinkage is 2.8 percent; and tangential/radial shrinkage ratio is 1.96. It is easy

to saw and to work with carpentry machinery and hand tools, taking on an excellent finish. It is also easy to turn for veneer and to cut into fine sheets. The duramen is moderately durable, but the alburnum is susceptible to attacks by insects and sea borers. In the open air, the wood dries well but slowly, therefore requiring good ventilation; once it dries, it is dimensionally stable. It is deemed moderately difficult to preserve by pressure methods. The wood of *J. olanchanus* is used for decorative veneer, luxurious furniture, cabinetwork, light construction, cabinetmaking, interior panels, turned articles, musical instruments, decorations, panels, parquet floors, special accessories, and turnery. The nuts from the fruit are edible, and the shell is used to dye leather (Aguilar 1966).

The small yellowish-white flowers are monoecious. The female flowers are in shoots; the males in racemes. The tree blooms March through May. Seeds average 35 to 65 per kg with 50 to 60 percent viability.

Seeds can be stored for approximately 4 years without significant loss of viability. The content of physical moisture for their storage ranges from 20 to 40 percent with a relative humidity between 80 and 90 percent (Centro Agronómico Tropical de Investigación y Enseñanza 1997a).

Seeds are classified as orthodox. They have a hard testa and require a pregermination treatment to break their natural latency. Three pregermination treatments follow. The seeds can be stratified at 31 to 40 °C. They can be stratified in wet sand and covered with soil and flax luffa. Or, they can be cut and soaked in water. Seeds germinate in a sand substrate in about 4 weeks.

ADDITIONAL INFORMATION

The bevel is 1 to 2 cm thick; brownish red or dark red, fibrous, and hard. The tree has a pleasant odor and exudes a milky latex from the interior layers of the bark.

The petiole and rachis are 40 to 50 cm long. The petiole alone is 7 to 10 cm long, cylindrical, lenticellate, glabrous, and strongly pulvinate at the base. The rachis is cylindrical, slightly thickened at the knots, and glabrous. The petiole is approximately 1 cm long, except the terminal one, which is 2.5 to 3.5

cm long, caniculate, pulvinate, and rosy at the base. It has 4 to 6 pairs of opposite leaflets, and a terminal. The lamina is elliptic-oblong to elliptic-lanceolate, 12 to 22 cm, 6 to 7.5 cm, acuminate apex, cuneate to obtuse base, with whole edges. The right side is shiny and dark green, the back is pale green, and both surfaces are glabrous. The main vein is prominent underneath; there are 10 to 12 pairs of secondary veins that are slightly pulvinate underneath and almost brochidodromous (Aguilar 1966).