## Cedrela montana Moritz ex Turcz.

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## MELIACEAE (MAHOGANY FAMILY)

Cedrela bogotensis Triana & planchón, C. mexicana Roem, C. subandina cuatrecasa

Cedro, cedro bogotano, cedro cebollo, cedro clavel, cedro colorado, cedro de montaña, cedro de tierra fría, cedro mondé, cedro negro, cedro rosado

Cedrela montana is a slow-growing tree that reaches 25 to 30 m in height and 30 cm d.b.h. It has a straight brown shaft that is fissured and soft, with a pink bark. The leaves are alternate, compound, and paripinnate with whole margins. The species grows in soils with good drainage, loose or loose sandy texture, a neutral or alkaline pH, and good fertility. The tree delays its growth when it is planted in low-fertility soils and soils with a clayey texture; it is also susceptible to flooded soils (Rodriquez 1988). Cedrela montana grows at elevations between 1600 and 2800 m, with an average annual temperature ranging between 10 and 20 °C and annual precipitation of 500 to 2000 mm. Cedrela montana grows in the vegetal formations of the Pre-Mountainous dry forest (bs-PM), Pre-Mountainous wet forest (bh-PM), Low Mountainous dry forest (bs-MB), and Low Mountainous wet forest (bh-MB).

Generally, the genus Cedrela is highly appreciated in carpentry, for exteriors and interiors and especially for furniture due to its color, grain, and workability. Characterized by its hardness and high durability, the wood is also used for plywood, cigar boxes, naval construction, racing boats, and musical instruments and as chips in construction. It is also used to make artistic carvings (Escobar and Rodriguez 1993).

The flowers are terminal and small; the calyx is regular and lobulate. The fruits are ligneous capsules, lenticellate, dehiscent, and brown. They contain winged seeds.

Fruits are collected from the tree, a little before they ripen and open. They are dried in the sun, and the seeds are extracted. Viable seeds average 26,254 per kg. The seeds are stored at 4 to 5 °C. Appropriate pregermination treatment involves immersing the seeds in room-temperature water for 24 hours. About 12,000 plantules are obtained from 1 kg of seed in nurseries. Purity percentage ranges between 40 and 80 percent. Germination percentage is 60 to 90 percent. Germination is epigeal and seeds germinate in 5 to 30 days.

Cedrela montana can be propagated through cuttings, shoots, or seeds if medium to high light is provided. The basal portions of stem cuttings 25 cm long and 2 to 4 cm in diameter are submerged in a solution of indolbutyric acid (0.2 mg per cc) for 24 hours before planting. The root shoots of C. montana can be used for forest reforestation.

When using seed to propagate the species, the recommended substrate should consist of two parts sand and one part soil, which must be disinfected before planting the seeds. Seeds must be sowed deep enough to prevent uncovering when watered, but they must not be too embedded. The plantules are lifted when they are 5 to 8 cm high. Initial shade is required, but it is gradually eliminated until the plantules are fully exposed to the sun. Plants are transplanted to the field 4 to 6 months after the initial transplant (Trujillo 1995).

The stubble at the planting site must be partially removed to prevent attacks by borers. In over-pastured soils, scarification will promote root growth. The species needs good soils; appropriate fertilization and correction of pH are recommended in poor soils.

The planting distance between trees depends on the final objectives. Homogeneous plantings are not recommended because the species is susceptible to attacks by the bud borer. It must be associated with agricultural plantings or grasses; otherwise, enough distance must be left among trees for underbrush to grow and diminish attacks by the pests. To produce a forest, distances of 8 to 15 m combined with other species are recommended. As shade for agricultural plantings, distances range from 13 to 20 m.

