

Brunellia costaricensis Standl.

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BRUNELLIACEAE (CEDRILLO)

No synonyms

Cedrillo, cedrillo macho, yerbabuena (Hartshorn and Poveda 1983)

About 15 species of the genus *Brunellia* grow in the mountains of tropical America (Standley and Steyermark 1946). Most grow in Colombia, some grow in the wet forests of the Andes, and a small number grow in Central America and the Antilles. In some countries, only one species grows (Nee 1985, Orozco 1986). *Brunellia costaricensis* is native to Costa Rica and grows in secondary forests at elevations between 1500 and 2800 m (Carpio 1992, Torres and others 1992b) in areas with 200 to 4000 mm annual precipitation and temperatures of 3 to 25 °C.

Brunellia costaricensis is a well-formed, medium-to-large tree with a cylindrical trunk. It can reach 27 m in height and 57 cm d.b.h. The species grows on slopes and in soils with good drainage. It can invade naked soil and adapt to soils left by landslides. Because it grows on bare sites, *B. costaricensis* must survive high light intensities (Hartshorn and Poveda 1983).

Considered a timber tree, *B. costaricensis* wood is light, with a specific gravity of 0.35. The sapwood is light pink and the heartwood is chestnut gray. The wood dries moderately fast and easily with no serious flaws. It is easy to work and finishes well. Its resistance to biodegrading organisms is low (Carpio 1992). Now used as a source of firewood and coal, it could be used for paper, toys, rustic handicrafts, and economical furniture (Holdridge and Poveda 1975). The wood is also used in the construction of boxes to carry fruit and for coffins and indoor construction (Carpio 1992).

The flowers appear in terminal inflorescences (Arnáez and Moreira 1992, Cuatrecasas 1970, Nee 1985). The species blooms throughout the year; however, during some periods female flowers outnumber male flowers, and vice versa. In the high areas of the Central Valley of Costa Rica, abundant numbers of female flowers appear April through June. The sepals are green, and the petals are a tinny color. The fruit is aggregated polyfolicular with one to five fruits for every flower. Each branch bears about 331 fruits, each containing 2 seeds. Each seed is 0.20 cm wide, 0.35 cm long, and 0.193 cm thick (Arnáez and Moreira 1992, Torres and others 1992b). The species produces frequent and plentiful amounts of seeds. Birds spread the seeds, and banks of seeds on the ground are plentiful (Torres and others 1992b). *Brunellia* spreads both by seed and by resprouting (Torres and others 1992b).

Workers collect fruits all year by climbing the trees and using extension pruners. However, the highest rate of fruit production occurs from April through June. The fruits are moved in sacks to well-ventilated areas to dry. Drying frees the seeds from the follicles. The embryos of seeds stored 1 month were in good condition; however, all observations are preliminary (Torres and others 1992b).

Twelve pregermination treatments were tested. Some involved sulphate mixtures, chemical substances, and water soaks; however, germination was not achieved in any test (Torres and others 1992b).

