

Inga jinicuil Schldl. & Cham. ex G. Don

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FABACEAE (BEAN FAMILY)

No synonyms

Chalahuite, chalahuite de monte, coctzán, cuajinicuil, jinicuil, paterno

Native to the tropical regions of Mexico, *Inga jinicuil* is distributed in the states of Puebla, Veracruz, Tabasco, Oaxaca, Guerrero, Michoacán, and Jalisco. The species is part of the mountain mesophyll forests and the gallery forests that grow along rivers.

Inga jinicuil is an evergreen tree that can reach 20 m in height and 50 cm d.b.h. The trunk is straight, and the spreading, round crown consists of rising branches with dense foliage. The leaves are pinnate, made up of six elliptic or lanceolate leaflets, 8 to 11 cm long. The tree is found in areas with deep soils that are rich in organic matter. The climate in which it prospers is humid with an average annual precipitation of 1490 mm, a dry season lasting 1 month, and an average annual temperature of 18 °C. *Inga jinicuil* grows at elevations from 900 to 1500 m.

The tree is used primarily for shade in coffee and orange plantations and in hedges to mark boundaries and properties in rural areas. Resistant to freezes, this species fixes atmospheric nitrogen at a rate of 35 to 40 kg per ha per year, a rate that often exceeds that of applied fertilizers (Nair 1993, Roskoski 1981). *Inga jinicuil* is also cultivated as an ornamental tree. The fruits are gathered in large amounts and sold in markets for their pulpy, white, edible seedcoat. The wood is used for firewood and for construction in rural areas. The species has great potential for use in agroforestry systems located in the wet and subhumid regions and tropical highlands with precipitation of 500 to 3000 mm per year and a dry season of 5 to 6 months.

The flowers are fragrant, white or cream, and arranged in colorful capitula. *Inga jinicuil* blooms during the spring and fruits in the fall of the same year. The fruits (legumes) are oblong, arched, 15 to 20 cm long, laterally flattened, thick, green, and dehiscent when ripe. Each fruit contains 12 to 18 seeds (Martinez 1987, Standley 1922). The seeds are oblong, laterally flattened, 24 to 32 mm long, by 12 to 18 mm wide, and 8 to 11 mm thick. The seedcoat is white, cottony, pulpy, sweet, succulent, and easily loosened from the embryo.

The fruits are green and become yellowish green as they ripen. They are not gathered when they are over-ripe because the seeds acquire an unpleasant taste. Poles with metal hooks are used to collect fruits. Children throw stones to knock down fruit or pull down the branches with hemp or jute ropes. The fruits are twisted to separate the valves and extract the seeds. Because the seeds removed from the fruit die quickly from desiccation, they must be planted immediately in a bed of wet moss.

ADDITIONAL INFORMATION

The hilum is basal, and the funiculus adheres to it. The micropyle is indiscernible. The endosperm is absent. The green embryo has a straight axis and is almost bilaterally symmetrical. The cotyledons are ovate or elliptic, whole, expanded, plano-convex in cross section, pulpy, independent, and slightly sinuous in their contact surfaces, with fissured bases. The radicle is conical or pyramidal and totally covered by the cotyledons (Niembro 1992).

