



TREE SPECIES (SCIENTIFIC NAME)

Protium tenuifolium

PERU COMMON NAME

Copal, Incienso

TREE FAMILY

BURSERACEAE

AVERAGE LEAF SIZE (CM)

10.35cm * 4.01cm

Length Width

ELEVATIONAL RANGE (M)

400–1100m

TREE HEIGHT

MEDIUM (20–35M)

DISTRIBUTION

**NATIVE TO PERU**

NATIVE TO

Region: Americas**Latin America:** Brazil, Colombia, Costa Rica, Ecuador, Guyana, Honduras, Nicaragua, Panama, Peru, Suriname, Venezuela

COFFEE AGROFORESTRY INFORMATION

COFFEE SYSTEM

**ARABICA**

COFFEE IMPACT

**BENEFICIAL TO COFFEE**

CULTIVATION

**PLANTED****NATURAL**

PREVALENCE

Not Common in Coffee Agroforestry

TREE MANAGEMENT

Planted by seeds and seeds are dispersed by large birds and various mammals. It has ripe reddish fruits which contains the seed and are relatively easy to collect with sticks. The fruits are left to open in the sun and the pulp covering the seeds is removed under water. Without pregermination treatment, an average of 7% germination is obtained, which occurs between 25 and 46 days after planting. Seeds stored at 20°C lose viability in less than 1 month. Growth in nursery is slow. Seedlings can reach 25-30 cm in height in a time of 8 months. They require partial shade during their initial development. Trees of this species maintain their foliage permanently. It has a low incidence of pests.

TREE BENEFITS AND USES

FARMER USES

**Firewood, Lumber, Medicinal, Product**

Harvested from the wild and used for carpentry, construction, joinery, cabinetry, furniture, flooring, household utensils. The resin obtained from the bark is used to light fires. The resin is an astringent.

FARM SERVICES

**Coffee Shade, Soil Improvement**

Coffee Shade: generates medium shade coverage

Soil Improvement: drops its leaves in dry season by up to 70 percent, which facilitates the recycling of nutrients and incorporates nutrients into the soil

BIODIVERSITY BENEFITS

✓ YES

The biggest consumers of its fruits are toucans, toucans and saltators. Also frequently visited by tanagers, euphonias, chlorophonias, violet magpies and insectivorous birds such as greenlets, vireos and cabezons. The seeds are dispersed by large birds and various mammals.

Last Updated: August 15, 2023

Image: Copyright Benny Celestino Osorio 2022

Tropical Plants Database, Ken Fern. tropical.theferns.info/viewtropical.php?id=Protium+tenuifolium;

Román, Francisco, et al. Guía para la propagación de 120 especies de árboles nativos de Panamá y el neotrópico. 2012.