

Caesalpinia pulcherrima (L.) Sw.

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FABACEAE/CAESALPINIOIDEAE (BEAN FAMILY)

Poincianella pulcherrima L. (Timyan 1996) and *Poinciana pulcherrima* L. (Guzmán 1980)

Flor barbona, flower crest, francillade, gallito, guacamaya, paradise flower, peacock crest, pride of Barbados, red bird of paradise, Spanish carnation, tabachin
(Allen and Allen 1981, Croat 1978, Guzmán 1980)

Caesalpinia pulcherrima is native to the West Indies and Mexico (Croat 1978) and has naturalized in El Salvador and Panama. Two similar species are the Mexican bird of paradise *C. mexicana* and bird of paradise bush *C. gilliesi*.

Caesalpinia pulcherrima is a fast-growing, glabrous shrub or small tree that reaches 6 to 7 m in height and 20 cm d.b.h. *Caesalpinia pulcherrima* has bipinnately compound leaves and 9 to 11 pairs of leaflets. Adult *C. pulcherrima* trees are adapted to semi drought conditions and tolerate extreme heat. *Caesalpinia pulcherrima* grows in a wide range of soils, temperatures, and elevations from sea level to 1000 m or higher. It freezes at 0 °C and recovers in warm weather.

Caesalpinia mexicana may hybridize with *C. pulcherrima*.

Caesalpinia pulcherrima is a popular ornamental in urban areas with its showy orange flowers, rapid growth, and medium size (Timyan 1996). It is commonly used for living fences and windbreaks in tropical countries and in the United States. Tannins are found in the bark, and flavonoids in the flowers and leaves (Guzmán 1980). Different parts of the plant are used to treat several conditions such as fevers, liver infections, canker sores, wounds, and eye irritations (González Ayala 1994, Timyan 1996).

Caesalpinia pulcherrima has orange-red flowers in panicles that bloom and fruit 8 months after germination under moist conditions in sunny locations (Allen and Allen 1981). Flowers and pods are observed continuously during the dry season and most of the wet season. Pods mature 30 to 40 days after pollination (Croat 1978, Quintanilla 1997). The flat woody pods are 10 to 12 cm long with up to 12 seeds. Pods are green when young and dark brown when mature. Pods mature first at the base of the flower panicle.

Mature pods are collected by hand because they remain on the plant after maturation. Special tools are not required for seed extraction. Seeds extracted from the indehiscent pod and kept at 5 °C under dry conditions in air-tight plastic bags, do not need to be cleaned before planting. Seeds average 6,300 to 6,500 per kg. Pregermination treatment is unnecessary. Germination of fresh seeds is 90 to 100 percent (Navarrete-Tindall 1996) and of 3- to 4-year-old seeds, 85 percent.

In El Salvador, seeds are planted in sunny locations in bags or pots with well-drained soils high in organic matter. In temperate regions, seeds can be germinated in Promix®, perlite, or vermiculite. Seedlings planted in the latter two media must be fertilized. Seeds germinate 4 to 7 days after planting and should be watered daily. Two- to six-month-old seedlings can be outplanted 1.5 m apart. Irrigation is required when seedlings are transplanted during the dry season. In the United States, plants are pruned in late fall or early winter to maintain a compact form.

ADDITIONAL INFORMATION

In the United States, the species is cultivated in desert areas in zone 9, with minimum average temperatures between -1.1 and -6.6 °C (Cathey 1990), and in the frost-free zone 11. In zone 9 only the root and part of the stem survive to produce new foliage the following spring.

Nodulation has not been observed on seedlings (Allen and Allen 1981), including 90-day-old seedlings inoculated with rhizobial strains from *Gliricidia sepium* (Navarrete-Tindall and Van Sambeek 1996).

Two seed sources are J.L. Hudson Seedman in the United States and Setropa in Holland (Rodale Institute 1992).

