

# *Delonix regia* (Bojer ex Hook.) Raf.

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## FABACEAE (BEAN FAMILY)

### *Poinciana regia* Bojer

Acacia, árbol de fuego, árbol del fuego, clavellino, flamboyán, flamboyán colorado, flamboyán rojo, flamboyant, flamboyant-tree, flame-tree, flor de fuego, flor de pavo, framboyán, giant, giant-tree, guacamaya, guacamayo, josefina, July-tree, malinche, poinciana, royal poinciana, tabuchín (Little and Wadsworth 1964, Salas Estrada 1993)

*Delonix regia* is the most cosmopolitan of the three species in the genus. A native of Madagascar, it now grows in almost every frost-free country and may be the most recognized flowering ornamental tropical tree in the world (Menninger 1962).

*Delonix regia* is a small to medium-sized tree, typically 7 to 16 m tall and up to 60 cm d.b.h. (Little and Wadsworth 1964). However, the champion Puerto Rican (*D. regia*) tree is 32 m tall and 105 cm d.b.h. (Francis 1994). This tree is easily recognized with prominent buttresses and a briefly deciduous broad, flat crown when grown in full sun. The species grows well in moist soil derived from limestone, where it is common and reproduces well; but it also tolerates well-drained and somewhat droughty conditions (Francis and Liogier 1991).

The tree's attractive form and bright, showy flowers as well as the shade it provides make it a popular ornamental throughout the tropics. The predominantly red flowers (with yellow and orange cultivated forms) are commonly used as short-lived cut flowers. The trees remain in flower for several weeks. The trees are often planted along roads to serve as living fence posts or to provide shade. The yellow-brown wood is weak, brittle, and soft, with a specific gravity of about 0.3. It is a poor timber source. *Delonix regia* is widely grown for fuelwood, and the seedpod is edible (Little and Wadsworth 1964, Menninger 1962, Webb and others 1984).

The flowers appear after a dry season when the tree is almost leafless. The five-pointed calyx is hairy and borne on racemes 15 to 25 cm long. Flowers are commonly red but may also be white, yellow, orange, or spotted and range from 8 to 25 cm across. The flowers persist during leaf emergence, resulting in a crown that appears feathery green with domi-

nant, colorful flowers. Seed pods are hard, 35 to 50 cm long, 6 cm wide, and 5 mm thick. They hang tenuously on the trees throughout the year. After 6 months, the mature, dark brown to black pods split lengthwise into two parts (Little and Wadsworth 1964).

Pruning poles are used to collect mature *D. regia* pods. Any unopened pods should be dried for 1 month in full sun, then forced open to remove the seeds which are loosely attached in lateral grooves. *Delonix regia* seeds from Puerto Rico average about 4,500 per kg (Marrero 1949); those from Colombia average only 2,000 to 3,000 per kg (Navarette no date). The dry seeds can be stored in open or closed containers and do not require refrigeration (Francis 1994). Seeds stored for 12 months at 26 °C showed 60 percent germination (Marrero 1949). Webb and others (1984) reported viability after 4 years of storage.

Germination requires scarification by hot water, sulfuric acid, or abrasion. Millat-E-Mustafa (1989) recommends 90 °C for 10 seconds followed by a 24-hour imbibition. A concentrated sulfuric acid soak for 0.5 to 5 hours improved germination for Duarte (1974), while a hot-wire scarification proved superior to other means for Sandiford (1988). All reports of scarified treatments indicated superior results compared to those of controls with no treatment. Seeds germinated within 8 days of collection will have 76 percent germination after 9 weeks.

Seedlings of *D. regia* are ready for outplanting after growing in plastic nursery bags during the wet season, which lasts 3 to 4 months. Saplings to be used as large ornamental potted plants are grown to 2 m, balled, and burlapped. Mature, flowering, and fruiting trees may be grown in 3 to 5 years on

good sites (Francis 1994). *Delonix regia* has a shallow but spreading root system which is limiting when selecting planting sites. The trees are susceptible to termites, shoot borers, and heartrot (Webb and others 1984).

