

CAESALPINIA, THE OTHER BIRDS - OF - PARADISE*

prepared by Joe Garofalo** and John McLaughlin**

In both Florida, Hawaii, and California, the name “bird-of paradise” is associated with the monocot species *Strelitzia reginae* and *S. nicolai*. In the Southwestern U.S., some *Caesalpinia* species are also known as birds-of-paradise. There are 70 or so species of *Caesalpinia*, principally evergreen or deciduous trees and shrubs from tropical and subtropical regions of the Americas. Many are considered choice shrubs in tropical climates. Several are used as landscape plants in the arid Southwest, and perform very well in South Florida. These species are discussed below.

GENERAL DESCRIPTION.

Caesalpinia species are legumes, in the same family (Fabaceae) as beans and peas, with alternate, mostly even bipinnately compound leaves. Their flowers are borne in terminal panicles or racemes on the current-season wood.

Butterflies and hummingbirds handle the pollination work, making the *Caesalpinia* species good attractant plants for butterflies and hummingbirds. In older references *Caesalpinia* species are listed as genus *Poinciana*.

The green fruit and seeds of *C. gilliesii* can cause serious stomach and intestinal irritation if eaten. Symptoms include nausea, vomiting and profuse diarrhea for about 24 hrs. However, hulled green seeds of *C. pulcherrima* are reputed to be edible, and may have some medicinal value. The bottom line is that you probably should not include the fruit or seeds of these plants in a garden salad. On the other hand, the toxicity problems are not so serious that you can't use them in the landscape.

Under most growing conditions they are probably no more dangerous than poinsettias or *Dracaena* species.

NURSERY PROPAGATION.

Seeds are commonly used. The seeds have a “seed coat dormancy” that is weak, and slight scarification will eliminate the problem. Soaking the seeds in warm water for a few hours is usually sufficient. (You certainly don't need to use acids.) The seeds germinate best at temperatures greater than 84° F.

Softwood, sub-apical cuttings of *C. pulcherrima* root within five wks under intermittent mist if treated with 6,000 ppm indolebutyric acid and bottom heat. To date, efforts to micropropagate these plants have been largely unsuccessful.

PRODUCTION.

Only limited production information is available to growers. Production research at the University of Arizona on *C. pulcherrima* showed that seedlings grew best and produced more nodes under long days, which suggests Spring as a good time to propagate this species. Soil drenches with 3.75 ppm uniconazole, a growth retardant, suppressed stem elongation without affecting flower initiation or axillary branching.

CLIMATE AND NUTRITION.

All species of *Caesalpinia* like hot weather, and do not do well in cool, humid environments. Like many desert-adapted plants, they prefer full sun and well-drained soil, both of which are plentiful in South Florida. They tolerate drought and poor soil, which we also have in

abundance. Nutritional requirements are modest, though micronutrient chlorosis is common. This is usually easy to control with minor element foliar sprays.

PESTS AND DISEASES.

These plants are attacked by very few insect pests. This may be due to their production of toxic compounds (flower extracts can be used to kill snails and diamondback moth larvae). They are reported to be susceptible to various fungal root-rots, but are susceptible to very few other diseases.

LANDSCAPE USES.

All three species discussed can be used as accents, borders, & informal hedges. *C. gilliesii* & *C. pulcherrima* can be pruned into small trees, and are often used in street landscapes and median plantings. All three perform well under drip or micro irrigation in dry landscapes and in nursery production. Eight or more additional species are sometimes seen in the trade.

THE THREE MOST POPULAR SPECIES IN FLORIDA:

• *C. pulcherrima*.

This is certainly the most popular and probably the showiest. It is known in Florida as “dwarf poinciana” and “Barbados flower-fence,” as “Ohai-alii” in Hawaii, and as the “red bird-of-paradise” in the Southwestern U.S.. It is native to the tropics, most likely to the West Indies (where it is known as “pride of Barbados”), but is naturalized throughout much of the American tropics.

The species does not escape in the Southwest, and won't even survive without supplemental irrigation.

Dwarf poinciana can reach 6-15 feet tall and wide, with open growth, and makes a nice informal hedge or specimen. The current year's stems bear weak, slightly recurved prickles and medium-textured evergreen foliage. Leaves are large, 8-15 inches long with 3-9 pairs of compound pinnae. Each pinna bears 7-15 pairs of leaflets.

The dwarf poinciana blooms year round in frost-free climates like South Florida and Hawaii. The flowers are large, with conspicuous red stamens that are several times the length of the petals, up to 2 1/2 inches long. The petals are yellow-orange, turning red with age. There are also selections available with yellow or pink flowers. The pods are brown, 4 inches long by 3/4 inch wide.

• *C. gilliesii*.

This was the first species to be cultivated, and is the hardiest of the three species. It is grown in both Florida and Hawaii, but is not very common. Originally from Argentina and Uruguay, this species has been widely planted, and is naturalized in Mexico. It was popular in the high-elevation deserts of the American Southwest, but that popularity has declined somewhat due to weediness there. The invasive potential in South Florida is not known, therefore careful monitoring is needed with this and any other potentially invasive species.

At higher elevations *C. gilliesii* is sometimes called “Mexican bird-of-paradise,” or simply “bird-of-paradise.” “Paradise poinciana” is

another common name. At lower elevations it is more commonly known as “desert (or yellow) bird-of-paradise.” This bird will form a narrow shrub 6-12 feet high by 4-8 feet wide. It can be pruned to a standard or cut back and maintained as an informal, open hedge.

Foliage is finer-textured than in the other species. Leaves are evergreen, 3-5 inches long with 6-12 pairs of compound pinnae, each with 5-9 pairs of leaflets. Stems are somewhat malodorous.

The flowers are flamboyant yellow, sometimes tending toward orange. The 10 stamens are red and conspicuous, extending well beyond the petals. This bird can flower throughout the Summer, but the best show is in late Spring and early Summer.

The pods are brown, 4 inches long by 3/4 inch wide. At fruit dehiscence, seeds are ejected forcibly and fly out a considerable distance.

• **C. mexicana.**

This is available in Florida to a limited extent, more so in the Southwestern U.S., but is still uncommon in Hawaii. Commonly called “Mexican bird-of-paradise,” it can become a large shrub or small tree 10-15 feet or rarely 30 feet tall and 6-15 feet wide. As the name implies, this plant is native to Mexico.

It occasionally escapes cultivation in South Texas, but has not yet done so in Arizona. No data on potential invasiveness are available for South Florida.

Mexican bird-of-paradise blooms in the Summer, producing bright sulfur-yellow, fragrant flowers on racemes that are 3-6 inches long. Dark-green, medium-textured foliage distinguishes this bird from the other species. Leaves are 4-6 inches long with 2-3 pairs of

pinnae and a terminal pinna. Each pinna supports 4-5 pairs of leaflets.

OTHER SPECIES.

Two more species are produced in Florida nurseries:

- **C. granadillo**, bridalveil tree, known for its beautiful, exfoliating bark.
- **C. vesicaria.**

Other species rarely seen include:

- **C. cacalocoa**, casalote or Mexican bushbird,
- **C. cassioides, C. decapetala, C. fernea, C. reticulata, C. sappan, & C. spinosa.**

Selected References

Bailey, L.H.. 1949. *Manual of cultivated plants.* (Rev. ed.) The Macmillan Co., New York. pp 588-589.

Broschat, T.K., and A.W. Meerow. 1991. *Betrock's reference guide to Florida landscape plants.* Betrock Information Systems, Inc., Hollywood, FL. pp 47-48.

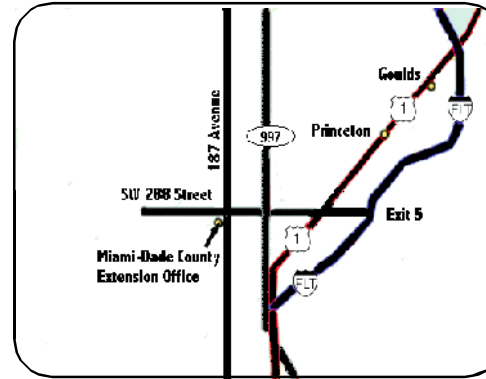
Dehgan, B.. 1998. *Landscape plants for subtropical climates.* Univ. of Florida Press, Gainesville. p 377.

Gilman, E.F.. 1997. *Trees for urban and suburban landscapes.* Delmar Publishers, New York. p 178.

*Hensley, D.. 1999. *Caesalpinia, the other bird-of-paradise.* Landscp, Flor, & Ornam News no. 5. Univ. of Hawaii.

Watkins, J.V., and T.J. Sheehan. 1975. *Florida landscape plants.* (Rev. ed.) Univ. of Florida Press, Gainesville. pp. 197-198.

*This fact-sheet is based in part on an article by J. Tipton, Univ. of Arizona, as modified by D. Hensley, Univ. of Hawaii.



CAESALPINIA, THE OTHER BIRDS - OF - PARADISE



.....
** Joe Garofalo is Extension Agent, Commercial Ornamentals, and John McLaughlin is Program Assistant, Urban Horticulture, Miami-Dade Cooperative Extension Service, Homestead.

Special thanks to Dr. Robert McMillan and Bill Graves, University of Florida Tropical Research and Education Center (TREC), Homestead, for reviewing this publication.

.....
MIAMI-DADE COUNTY PROGRAMS ARE OFFERED TO ALL PERSONS REGARDLESS OF RACE, COLOR, RELIGION, NATIONAL ORIGIN, GENDER, AGE, DISABILITY, OR SEXUAL ORIENTATION. DISABLED INDIVIDUALS ARE REQUESTED TO NOTIFY PROGRAM AREA (305-248-3311) TWO WEEKS PRIOR TO PROGRAM IF AUXILIARY AIDES OR ASSISTANCE IS REQUIRED. DISABLED PARKING SPACE AND WHEELCHAIR RAMP AVAILABLE.

In Writing

Publications for the horticulture professionals of Miami-Dade County.
Fact-sheet No. 54
Prepared by Joe Garofalo,
Extension Agent, Commercial Ornamentals
Miami-Dade County Cooperative Extension Service
Printed 1 2002; revised 9 2002 jfg Caesalpinia fs 9 2002 F

**Miami-Dade County / University of Florida
Cooperative Extension Service**



EXTENSION