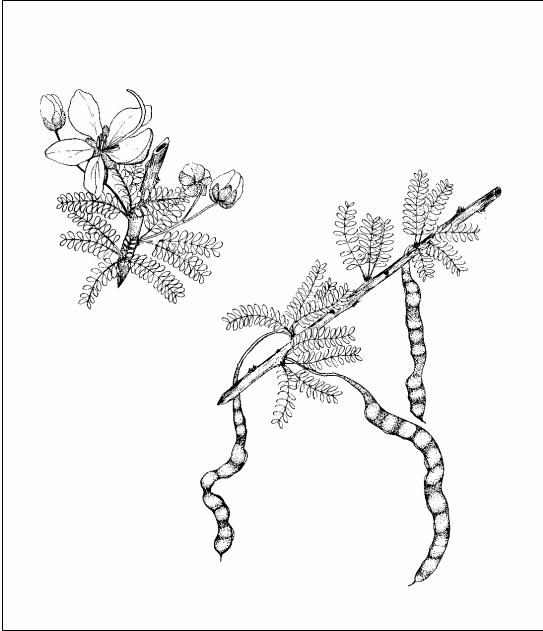


***Senna polyphylla* (Jacq.) Irwin & Barneby**
FABACEAE

desert cassia

Synonyms: *Cassia polyphylla* Jacq.
Peiranisia polyphylla (Jacq.) Britt. & Rose



General Description.—Desert cassia, also known in Spanish as hediondilla and retama prieta, is a shrub or occasionally a small tree of dry and moist forests of the middle Caribbean, now cultivated as an ornamental. It is usually 2 or 3 m in height, but rarely reaches 5 m in height and 12 cm in trunk diameter. The bark of older stems is dark gray and furrowed with short scaly plates. The inner bark is light brown. Multiple stems sprouting from the root crown are common, even in small plants. The stems are mostly clean, long and wand-like. Desert cassia develops a root system with a strong taproot. The twigs are slender, warty, and light green, maturing to brown. The leaves are alternate or clustered three to five at the nodes. These pinnately compound leaves have three to 15 pairs of leaflets that are 4 to 10 mm long. The five-petaled flowers are yellow and about 3.8 cm across, grouped in axillary racemes of mostly two flowers. The legume is linear, 8 to 15 cm long, slightly contorted, flattened between the seeds, and dark brown at maturity. The seeds are round, flattened, and dark brown (Howard 1988, Liogier 1988, Little and others 1974).

Range.—*Senna polyphylla* var. *polyphylla* Irwin

& Barneby is native to Puerto Rico and the Virgin Islands and has been recorded under cultivation in Florida, Grenada, Guyana, Surinam, Brazil, and probably elsewhere. The variety *montis-christi* Irwin & Barneby is an endemic of Hispaniola, and the variety *neglecta* Irwin & Barneby is found only on the island of Anegada, British Virgin Islands (Liogier 1988).

Ecology.—In Puerto Rico, desert cassia grows on a wide variety of well-drained soils that have developed over igneous, metamorphic (including ultramafics), and sedimentary (including limestone) rocks. It is tolerant of salt spray (Botanics Wholesale 2001). The species occurs at elevations from near sea level to about 300 m above sea level (Little and others 1974). Annual rainfall ranges from about 750 mm to about 1200 mm. Because desert cassia is intolerant of shade and grows slowly, it is usually found in areas where competition is minimal—dry, very rocky, excessively drained, overgrazed, and sites subject to occasional fires. Bare ground is probably necessary for reproduction.

Reproduction.—Desert cassia flowers and fruits throughout the year (Little and others 1974). The seeds from a Puerto Rican collection averaged 20,400 seeds/kg. Placed on moist filter paper without any pre-treatment, they began germinating in 2 days and gave 59 percent germination (Francis and Rodríguez 1993). The principal mode of dispersal today is by livestock. Seedlings in the wild are scattered and not abundant.

Growth and Management.—Growth is slow. About 30 cm of annual height increase is normal in Puerto Rico. Diameter growth ranges between about 1 and 4 mm/yr. Although no planting experience is published, plantations could probably be established with containerized seedlings followed by several years of weeding until the seedlings grew above herb and grass competition.

Benefits.—Desert cassia is grown by commercial nurseries and widely planted as a flowering

ornamental in the New World Tropics. It is employed as an accent plant or trained into a small background tree. The wood is light brown and hard and used occasionally for fence posts and fuel. Cows apparently do not readily eat the foliage of desert cassia—the species is more common in heavily grazed rangeland than elsewhere.

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