

African tuliptree

Spathodea campanulata Beauv.

Bignonia family (Bignoniaceae)

Post-Cook introduction

This handsome ornamental and shade tree is planted for its showy masses of large brilliant orange-red to scarlet tuliplike flowers in erect clusters mostly at top of crown. A prolific seeder, as well as a root sprouter, the species has become naturalized.

Large tree 50–80 ft (15–24 m) high and 1–1½ ft (0.3–0.5 m) in trunk diameter, with dense irregular crown of large spreading branches, evergreen or nearly deciduous. Big trunks develop tall narrow buttresses at base and are slightly broadened and grooved. Bark very light brown, smoothish but becoming slightly fissured; inner bark whitish, bitter. Twigs stout, gray brown, smooth except for corky warts (lenticels).

Leaves opposite or sometimes in threes, large, pinnate, 1–2 ft (30–61 cm) long. Leaflets usually 11–17 (sometimes 5–19), paired except at end, 3–6 inches (7.5–15 cm) long and 1½–3 inches (4–7.5 cm) broad, on short stalks of ¼ inch (3 mm), abruptly short-pointed, rounded and slightly oblique at base, a little thickened with edges a little turned under, almost hairless, upper surface green to dark green with sunken veins and slightly shiny, lower surface rusty hairy.

Flower clusters (racemes) terminal, about 4 inches (10 cm) high and 8 inches (20 cm) across. Flower buds numerous crowded, horn-shaped, 1–2 inches (2.5–5 cm) long on stout greenish stalks of the same length, orange brown, curving inward to the center. Those around outside open a few at a time and drop off about two days later. The flowers have a most unusual flattened shape, with light brown calyx 2–2½ inches (5–6 cm) long, curved and pointed like a horn, splitting open on outer side, minutely hairy and with longitudinal ridges. The tubular orangered to scarlet corolla about 4 inches (10 cm) long and 2 by 3 inches (5 by 7.5 cm) broad has an enlarged irregular bell-shaped tube 2 inches (5 cm) across and curved downward and five broad unequal lobes with crisp wavy edges narrowly bordered with gold. There are four pale yellow stamens 2–2½ inches (5–6 cm) long, with dark brown anthers, inserted in corolla tube in 2 pairs and projecting barely beyond. The pistil on a disk consists of an oblong two-celled ovary ¼ inch (6 mm) long, a long slender curved, pale yellow style about 3 inches (7.5 cm) long, and two-lobed red stigma.

Pods (capsules) one to several, large lance-shaped or boat-shaped, green to dark brown, 5–10 inches (13–25

cm) long, 1½ inches (4 cm) wide, and ⅞ inch (22 mm) thick, slightly flattened, long-pointed, erect and pointing upward from stout stalks, splitting open on one side. Seeds numerous, very thin and papery, with light brown center bordered by transparent wing ½–1 inch (13–25 mm) across. Flowering and fruiting probably through the year.

Wood is very lightweight, soft, whitish yellow, without distinction between sapwood and heartwood, very brash and coarse-textured. The wood is not utilized in Hawaii.

This ornamental and shade tree is propagated by seeds, cuttings, and root cuttings. It grows very rapidly but requires nearly full light. Measured trees in Puerto Rico increased in trunk diameter as much as 2 inches (5 cm) a year. As trees are broken by high winds and frequently become hollow and hazardous in age, planting near buildings or along roads is not advised. Also, the superficial root system makes this species undesirable for planting near houses and sidewalks. The trees produce sprouts from the roots, sometimes becoming like weeds. This species has been tried elsewhere for coffee shade but is not recommended for that purpose. Unopened flower buds contain water, ill smelling and tasting, which squirts out when the buds are squeezed, pinched, or pricked with a pin. The name “fountain tree” has been suggested by this character. Children play with these buds like water pistols. Old dry empty pods when widely open make very realistic toy boats, which, however, close up in water.

Planted and naturalized in lowlands of Hawaii. It was aerially seeded in the Panaewa and lower Waiakea Forest Reserves near Hilo in 1928 and occupies much of the forest in the area seeded. The Division of Forestry has planted more than 30,000 trees in the forest reserves, mostly on Maui and Hawaii.

Special areas

Waimea Arboretum, Foster, Tantalus, Waiakea

Champion

Height 83 ft (25.3 m), c.b.h. 15.5 ft (4.7 m) spread 56 ft (17.1 m). Kainaliu, North Kona, Hawaii (1968).

Range

Native of tropical West Africa. Widely planted in tropical regions around the world, including southern Florida and Puerto Rico and Virgin Islands.

Other common names

tuliptree, fountain-tree, firebell, spathodea; tulipan africano (Puerto Rico, Spanish); rarningobche (Yap).

Botanical synonym

Spathodea nilotica Seem.

The first trees were introduced into Hawaii apparently by Hillebrand more than a century ago, according to Degener. About 1915, Rock brought seeds from Java.

A horticultural variety with golden yellow flowers is a recent introduction and provides some variation in

color. It has been named for the late Lester W. "Bill" Bryan, who served for 40 years with the Territorial and later State forestry staff in Hawaii until his retirement in 1961 as Deputy State Forester.



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Flower, leaf, and fruits (below), 2/3 X (P.R. v. 1).