

RubiaceaeCMadder family

Cephalanthus occidentalis L.

buttonbush

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Other common names. common buttonbush, honey-balls, globe-flowers.

Growth habit, occurrence, and use. Buttonbush is a deciduous shrub or small tree that grows on wet sites from New Brunswick to Florida, west to southern Minnesota, Kansas, southern New Mexico, Arizona, and central California. It also occurs in Cuba, Mexico, and Central America (Little 1979). In the southern part of its range, buttonbush reaches heights of 4.5 to 6 m at maturity (Maisenhelder 1958), but it is shrubby in other areas. The seeds are eaten by many birds, and the tree has some value as a honey plant (Van Dersal 1938). Cultivation as early as 1735 has been reported (Vines 1960).

Flowering and fruiting. The perfect, creamy white flowers are borne in clusters of globular heads and open from June to September (Vines 1960). There is good evidence that buttonbush is largely self-incompatible (Imbert and Richards 1993). The fruiting heads (figure 1) become reddish brown as they ripen in September and October. Single fruits are 6 to 8 mm long (figure 2). Each fruit is composed of 2 or occasionally 3 or 4 single-seeded nutlets (figure 3) that separate eventually from the base (Bonner 1974b).

Collection and extraction. Collection can begin as soon as the fruiting heads turn reddish brown. Many heads disintegrate after they become ripe, but some persistent through the winter months. When the heads are dry, a light flailing will break them into separate fruits. Data from 4 samples of scattered origin showed 295,000 fruits/kg (134,000/lb), with a range of 260,000 to 353,000 (118,000 to 160,000). Purity in these seed lots was 96% (Bonner 1974b). The number of seeds per weight is about twice the number of fruits. Longevity of buttonbush seeds in storage is not known, but they appear to be orthodox in nature and thus easy to store. The principal storage food in the seeds is carbohydrate (Bonner 1974a).

Germination tests. Buttonbush seeds germinate promptly without pretreatment. Germination is epigeal (figure 4). Results with 2 test methods on seed from Louisiana (DuBarry 1963) and Mississippi (Bonner 1974b) were as follows:

	Louisiana	Mississippi
Medium	Water	Blotter paper
Temperature (°C)	24B34	30
Light	Yes	No
Test duration (days)	30	10

Germination (%)	86	78
No. of samples	4	4

Literature Cited

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