VerbenaceaeCVerbena family

Callicarpa americana L.

American beautyberry

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Other common names. French-mulberry, Spanish-mulberry, sour-bush, sow-berry.

Growth habit, occurrence, and uses. American beautyberryC*Callicarpa americana* L.Cis a small, woody shrub of the pine forests in the southern coastal plain. It seldom grows taller than 2 or 3 m. The shrub is common underneath the pine overstory and along roads and forest edges, where it grows best. It is found from Virginia to Florida and west to Texas and Oklahoma; it also occurs in the West Indies (Vines 1960). American beautyberry is an important food plant for wildlife, especially birds and eastern white-tailed deer (*Odocoileus virginianus*) (Blair and Epps 1969; Grelen and Duvall 1966; Halls 1973). The shrub=s well-branched root system and drought resistance make it desired for erosion control in some areas (Brown 1945), and it is frequently grown as an ornamental because of the colorful fruits (Dirr and Heuser 1987).

Flowering and fruiting. The small, inconspicuous flowers are borne in axillary, dichotomous cymes about 8 to 36 mm long. Flowering starts in early June and may continue into the fall months, even as the fruits mature in August to November (Dirr and Heuser 1987; Vines 1960). The fruit is a berrylike, globose drupe, about 3 to 6 mm in diameter, that is borne in conspicuous axillary clusters on the current season's growth. The rose to purple, or sometimes white (Brown 1945), fruit color gives this plant its ornamental value. A single fruit cluster may contain as many as 300 fruits, although about 100 is typical. Each fruit usually contains 4 small flattened seeds that are light brown in color and about 1 to 1.5 mm in length (Grelen and Duvall 1966; Vines 1960) (figure 1). Plants begin to bear fruit as early as 2 years of age, and mature plants may yield over 2 kg (about 1 lb) annually (Halls 1973).

Collection of fruits; extraction and storage of seeds. Fruits can be easily collected by hand in the fall when their rose-to-purple color indicates maturity. The soft fruits quickly disintegrate when they are macerated with water. Filled seeds sink in water, and the pulp can be floated off. Any type of macerator should work, even laboratory or kitchen blenders for small lots. There are about 600 seeds/g (17,000/oz), and good cleaning should yield a purity of practically 100%. There are no known storage data for this species, but soil seedbank studies show that the seeds will survive for at least 1 year buried in the soil. This fact, plus the hard seedcoat, suggest that these seeds are orthodox in storage behavior. Long-term storage at temperatures near or below freezing should be successful with seeds dried to below 10% moisture content.

Pregermination treatments and germination tests. The seeds have a hard seedcoat, and germination is relatively slow. One sample stratified for 30 days yielded only 22% germination in 90 days when tested at an alternating temperature of 20 $^{\circ}$C at night and 30 $^{\circ}$C in the light. Untreated seeds sown in the fall, however, were reported to give excellent germination in the spring (Dirr and Heuser 1987). There are no official test prescriptions for American beautyberry.

Nursery practice. No details of nursery practices for American beautyberry are available, except the successful fall sowing mentioned above. The small seed size suggests that soil or mulch covers after sowing must be very light. Vegetative propagation is not difficult with this species. Softwood cuttings taken anytime from June to September root well if treated with IBA (1,000 ppm) and placed in a mist bed (Dirr and Heuser 1987).

Literature Cited

Blair RM, Epps EA Jr. 1969. Seasonal distribution of nutrients in plants of seven browse species in Louisiana. Res.

Paper SO-51. New Orleans: USDA Forest Service, Southern Forest Experiment Station. 35 p.
Brown CA. 1945. Louisiana trees and shrubs. Bull. 1. Baton Rouge: Louisiana Forestry Commission. 262 p.
Dirr MA, Heuser CW Jr. 1987. The reference manual of woody plant propagation: from seed to tissue culture. Athens, GA: Varsity Press. 239 p.
Grelen HE, Duvall VL. 1966. Common plants of longleaf pine-bluestem range. Res. Pap. SO-23. New Orleans: USDA Forest Service, Southern Forest Experiment Station. 96 p.
Halls LK. 1973. Flowering and fruiting of southern browse species. Res. Paper SO-90. New Orleans: USDA Forest Service, Southern Forest Experiment Station. 10 p.
Vines RA. 1960. Trees, shrubs and woody vines of the Southwest. Austin: University of Texas Press. 1104 p.