SapotaceaeCSapote family

Sideroxylon lanuginosum ssp. *lanuginosum* (Michx.)

gum bumelia

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Synonyms: *Bumelia lanuginosa* (Michx.) Pers., *B. rufa* Raf.

Other common names. Woolly buckthorn, buckthorn, gum elastic, chittamwood.

Growth habit, occurrence, and use. Gum bumelia is a spiny shrub or small tree found from southern Georgia to southern Illinois and west to southern Kansas, southern Arizona, and northern Mexico. Reaching heights of up to 18 m, it is deciduous in its northern range and evergreen in its southern range. Gum bumelia has some value as wildlife food. It has been planted as an ornamental and to some extent for shelterbelts. It has a deep taproot and is extremely drought resistant (Bonner and Schmidtling 1974).

Flowering and fruiting. The perfect, white flowers are borne on small fascicles 6 to 38 mm across and open during June and July (Bonner and Schmidtling 1974; Vines 1960). The fruit is a single-seeded drupe 8 to 25 mm long. It turns purplish black as it ripens in September and October and persists on the tree into winter (Bonner and Schmidtling 1974; Vines 1960). The single seed is 6 to 13 mm long and is rounded, brownish, and shiny (figures 1 and 2) (Vines 1960).

Collection, extraction, and storage. Fruits should be picked as soon as they turn purplish black. The fleshy outer coat may be removed by careful maceration in water. The following data were obtained on 4 samples from Texas and Oklahoma (Bonner and Schmidtling 1974):

Cleaned seeds/weight of fresh fruit	10B12 kg/50 kg	10B12 lb/50 lb
No. of cleaned seeds	12,500/kg	5,700/lb
Purity	94%	
Sound seeds	88%	

Longevity of seed in storage is not known.

Germination. Gum bumelia seeds germinate slowly and may be influenced by the seedcoat and internal conditions. Stratification for 60 days at 5 °C has been successful in promotion of germination (Bonner and Schmidtling 1974). Scarification by soaking in concentrated sulfuric acid for 20 minutes, followed by 4 to 5 months of stratification at 2 to 7 °C, has also been recommended (Afanasiev 1942). Preliminary trials on samples of each seed lot are desirable to determine whether the acid treatment is necessary. Germination may be tested in flats of sand or sand and peat at temperatures of about 20 °C at night and 30 °C during the day. Test periods of 60

to 90 days are needed for complete germination of stratified seeds. Percentage germination of 21 to 44% was reported for 13 samples from Texas and Oklahoma (Afanasiev 1942). Untreated seed from Missouri had a percentage germination of 51% after 150 days (Clark 1940).

Nursery practice. Eighty-two viable seeds should be sown per linear meter (25/ft) and covered lightly with soil. Outplanting at the age of 2 years is suggested (Clark 1940).

Literature Cited

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Bonner FT, Schmidtling RC. 1974. *Bumelia lanuginosa* (Michx.) Pers., gum bumelia. In: Schopmeyer CS, tech. coord. Seeds of woody plants in the United States. Agric. Handbk. 450. Washington, DC: USDA Forest Service: 258B259.

Clark R. 1940. A hardy woody plant new to horticulture. Bull. 28. St. Louis: Missouri Botanical Garden: 216B220.

Vines RA. 1960. Trees, shrubs, and woody vines of the Southwest. Austin: University of Texas Press. 1104 p.

Figure 1—*Sideroxylon lanuginosum,* ssp. *lanuginosum,* gum bumelia: seed, × 8.

Figure 2—*Sideroxylon lanuginosum, ssp. lanuginosum,* gum bumelia: longitudinal section through a seed, × 8.