

Lauraceae—Laurel family

Sassafras albidum (Nutt.) Nees

sassafras

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Synonyms. *Sassafras albidum* var. *molle* (Raf.) Fern., *S. sassafras* (L.) Karst., *S. officinale* Nees & Eberm.

Other common name. white sassafras.

Growth habit, occurrence, and use. Sassafras—*Sassafras albidum* (Nutt.) Nees—is a short to medium-tall, deciduous tree that is native from southwestern Maine to central Michigan and southeastern Iowa, and south to east Texas and central Florida. It is little more than a shrub at the northern portion of its range, but on more fertile sites, trees may reach heights of 30 m at maturity. Sassafras is valuable for timber and wildlife. The light brown wood is soft, lightweight, and very durable. Bark of the roots has been used for making tea, sassafras oil, and perfume for soap and other articles. There is some evidence that extracts of the roots have some insecticidal properties (Jacobson and others 1975). The species has been cultivated since 1630 (Griggs 1990; Little 1979).

Flowering and fruiting. The dioecious, greenish yellowish flowers, 12 mm in length, are borne in 5-cm-long axillary racemes in March and April as the leaves appear. The drupaceous fruits are borne on thick red pedicles in clusters (Vines 1960). The single-seeded drupes are ovoid, dark blue, and about 8 to 13 mm long (figure 1). The pulpy flesh covers a hard, thin endocarp that encloses the seed (figure 2). The fruits mature from June to September, depending on latitude, and are dispersed within a month. Primary dispersal is by birds, which often eat the fruits before they fall (Little and Delisle 1962). Minimum seed-bearing age is 4 years for open-grown trees (Halls 1973), and good crops are produced every 1 or 2 years (Bonner and Maisenhelder 1974).

Collection, extraction, and storage. Fruits may be picked from the trees or knocked onto sheets of plastic or canvas by flailing the branches. The fruits are green before maturity, and the change to dark blue indicates that they are ready for collection (Bonner and Maisenhelder 1974). The pulpy flesh is usually removed before storage or sowing by rubbing the fruits over hardware cloth by hand or by breaking them up with mechanical macerators and washing the debris away with water. In the South, there are about 6,200 fruits/kg (2,800/lb) (Halls 1973). In the North, seeds collected and cleaned averaged 13,000/kg (5,900/lb). In Pennsylvania, 45 kg (100 lb) of fruit yielded about 14 kg (31 lb) of cleaned seeds (Bonner and Maisenhelder 1974).

There are no known storage tests for sassafras, but the seeds can apparently be stored successfully for a few years at 2 to 4 EC and low moisture contents (Bonner and Maisenhelder 1974). This behavior should place sassafras in the orthodox seed storage grouping, although the very high lipid content (47%) of the seeds (Bonner 1971) suggests that long-term storage would

be difficult. Soil seedbank studies have demonstrated that by seeds buried in litter retained viability for 4 years in Louisiana(Haywood 1994) and for 6 years in West Virginia (Wendel 1977).

Germination. Sassafras seeds exhibit strong embryo dormancy, which can be overcome with moist stratification at 2 to 4 EC for 120 days. Germination can be tested in moist sand or other media at temperatures of 22 to 30 EC for up to 120 days. The common laboratory test regime of alternating 20/30 EC will probably produce good results also.

Nursery practice. Although sowing has been done with both cleaned and uncleaned seeds and dried fruits, better results were obtained with cleaned seeds. Because seeds sown early in the fall often germinate before cold weather, unstratified seeds should be sown as late in the fall as possible. It may be necessary to store the seeds for a short period between collection and fall seeding. Stratification is recommended for seeds to be sown in the spring. The seeds should be drilled in rows 20 to 30 cm (8 to 12 in) apart and covered with 6 to 12 mm (¼ to ½ in) of firmed soil. Beds should be mulched with burlap, straw, or leaf mulch, held in place by bird or shade screens until after spring frosts (Bonner and Maisenhelder 1974). Sassafras can also be propagated by layering and by root cuttings (Dirr and Heuser 1987).

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Figure 1—*Sassafras albidum*, sassafras: fruit and seed, H2.

Figure 2—*Sassafras albidum*, sassafras: longitudinal section through a seed, H8.