4. *ACACIA SENEGAL* (L.) Willd. (FABACEAE) — Gum Arabic, Senegal Gum, Sudan Gum

The tree yields commercial gum arabic, used extensively in pharmaceuticals, inks, pottery pigments, water-colors, wax polishes, liquid gums; for dressing fabrics, giving luster to silk and crepe; for thickening colors and mordants in calico-printing; in confections and sweetmeats. Bark fibers yield strong cordage. Wood white, used for making tool handles. Heartwood is black, used for making weavers' shuttles. One of the strongest of local fibers is obtained from the long flexible surface roots, used for cordage, well-ropes, fishing nets, horse-girdles, foot-ropes, etc. Young foliage makes good forage. Plants useful for afforestation of arid tracts and soil reclamation.[40]

Gum arabic is astringent, demulcent, and emollient; it is used internally in inflammation of intestinal mucosa, and externally to cover inflamed surfaces, e.g., burns, sore nipples, and nodular leprosy. Also said to be used for catarrh, colds, coughs, diarrhea, dysentery, expectorant, gonorrhea, hemorrhage, sore throat, typhoid, urinary tract.[32,40]

On a dry matter basis, the leaves contain 18.2% protein, 6.7% tar, 66.7% total carbohydrate, 11.2% fiber, 8.4% ash; the fruits contain 22.0% protein, 1.0% fat, 69.9% total carbohydrate, 39.0% fiber, 7.1 g ash; and the seeds contain 40.1% protein, 5.8% fat, 49.1% total carbohydrate, 13.7% fiber, 5.0 g ash, 0.75% Ca and 0.31% P.[21] The main component of gum arabic is arabic acid, a polysaccharide composed of L-arabinose, L-rhamnose, D-galactose, and D-glucuronic acid in different molar ratios (depending on the species the gum is produced from).

Toxicity — Gum arabic contains trypsin inhibitors.[40]