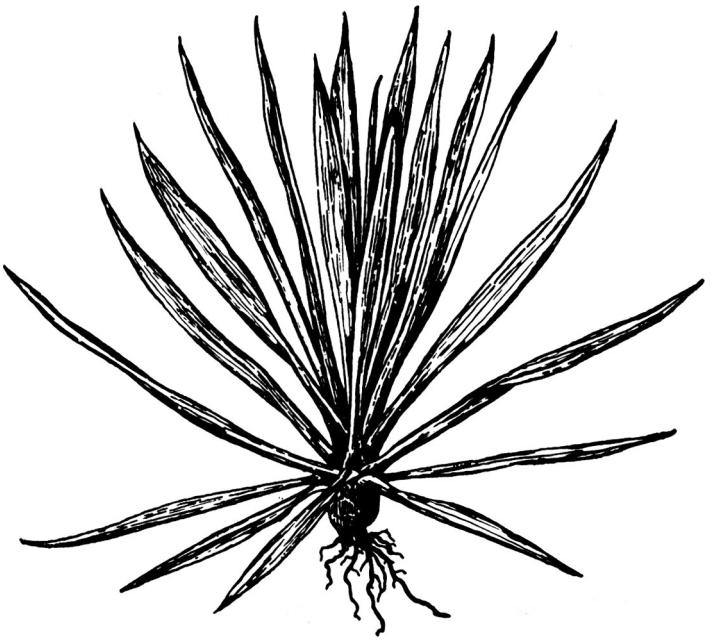
15. *AGAVE SISALANA* Perrine (AMARYLLIDACEAE) — Mescal



Leaves provide a fiber of great commercial value, used for making binder twine and as substitute for Manila fiber for manufacturing heavier twine, ropes, and marine cordage. Sometimes fiber used as substitute for jute, and woven into rugs, mats, and fabrics for making sacks for coffee, wagon covers, floor-coverings, and for mops, brushes, paper board, and kraft paper. Sisal waste used to make cheap twines and upholstering tow as well as paper, and to manure sisal plants.[22] Waste also used as source of cortisone and other hormones. Like any of several genera in several plant families this could be used as a source of steroids. We get conflicting signals on these steroids in reading "Medicinal Plants Need Extensive Safeguarding".[79] "Most oral contraceptives — one of the biggest product groups stemming from diosgenin — are now manufactured by total synthesis . . . And after 25 years of research on steroids, manufacturers still obtain 95% of their start-point material from natural sources." Sap exuding from cut ends of flowering stalks is sweet and used to make a beer (pulque) by fermenting this sap, and a kind of brandy (mexical or mescal or mezcal). Central buds may be cooked and eaten. They can be baked with little corn oil and salt, peeling off the outer "leaves" and serving them as a side dish.[49] Sisal waste is molluscocidal[17] and may be used as a beneficial mulch on plants not requiring an acid soil.

Reported to be cicatrizant, depurative, detergent, and soporific, sisal is a folk remedy for dysentery, jaundice, leprosy, sores, sprains, and syphilis.[32]

Contains tigogenin, hecogenin, gitogenin, neo-tigogenin, sarsapogenin, sisalogenin, gloriofenin, gentrogenin, delta 9-11-hecogenin, diosgenin and yamogenin[17,33] pectin, and much vitamin C. The cuticle contains 5 to 17% of a hard wax with properties suggesting candelilla or carnauba wax.[33] The dried residue after fiber extraction contains 11% fermentable sugars from which alcohol can be prepared, perhaps not profitably.[1]

Toxicity — Raw sap highly irritating to the eyes and skin. Sisal in mattresses may cause allergic reactions in sensitive individuals.