

Sweet Leaf, Star Gooseberry, Sweetleaf Bush

Sauropus androgynus

Euphorbiaceae

ECHO® PLANT INFORMATION SHEET

Description

Katuk is a perennial shrub native to the lowland, rainforest understory of the warm tropics. It is a familiar plant in home gardens in the wetter parts of Southeast Asia. It grows up to 3.5 m unless pruned. Katuk leaves are compound, with each leaf comprised of dark green, oval-shaped leaflets (5-6 cm long) on each side of a leaf stalk. Yellow-to red flowers and marble-size (1-1.5 cm wide), white- to-purple fruit are borne on katuk's leafy, semi-woody branches. Mature fruit will split, revealing black seeds inside.

Uses

Katuk is popular for its edible, nutritious leaves and young shoots often described as having a nutty flavor similar to fresh garden peas. It can be grown and managed as a hedge of edible leaves for year-round consumption. Leaves can also be used to feed cattle and chickens.

Common Names

- Spanish
 - ∘ Katuk
- Malayalam
 - cekur manis
- Malay
 - o sayur manis
 - o asin asin

Cultivation

- Elevation up to 1300 m
- Rainfall 600-4000 mm annual rainfall with 900-1200 mm being optimal
- Soil Type(s) prefers medium- to heavy-textured soil with a pH of 5.5-7.5
- Temperature Range 5-38°C with 26-35°C being optimal; growth slows under cool temperatures
- Day Length Sensitivity flowers during much of the year in the tropics

Katuk is known for its ability to grow under hot, humid conditions. It will tolerate acidic soil, heavy clay soils, and shade. It is mostly propagated from cuttings. Take 20-30 cm long cuttings from transitional (between green and woody tissue and four to five nodes) stem material. Trim off the leaves to prevent moisture loss. Plant the cuttings directly in moist soil in the garden, or transplant the cuttings after rooting them in pots in a nursery or greenhouse with regular misting and watering. Katuk can also be propagated from seed, but seed germination is variable since they are only viable for 3-4 months. Plants are typically spaced 30-60 cm apart. Nitrogen will enhance foliage growth and can be obtained from sources such as manure, compost, and nitrogen-containing synthetic fertilizers.

Harvesting and Seed Production

Begin picking young leaves and stem tips (top 15 cm) 4 months after planting. Pruning will encourage regrowth and keep branches from falling over as they grow. Seeds collected from mature fruit are best planted (1-1.5 cm deep in soil) soon thereafter, as they do not remain viable for long periods of time in storage. Germination time of katuk seeds is variable and may take over a month.

Pests and Diseases

Katuk has minimal pest and disease problems. Minor pests include the Chinese rose beetle (*Adoretus sinicus*), leaf miners (Agromyzidae family), and mites. Slugs that girdle the stems and kill the plant can be a problem in rainy climates. In northern Thailand, there are reports of root rot under excessively moist conditions and suspected nematode problems.

Cooking and Nutrition

Young leaves and shoots are eaten raw (e.g., in salads) or cooked (e.g., in soups and curries). The young stem tips/shoots are eaten like asparagus. Older leaves, flowers, and fruit are usually cooked. The fact that the greens retain their color and firmness when cooked make them valuable for sale to restaurants. Katuk leaves are an excellent source of protein, vitamins (notably A and C), minerals (e.g., calcium, iron, and zinc) and antioxidants. Both young and older tissue are nutritious, but nutrients are more concentrated in older leaves.

CAUTION: In the 1990s, the consumption of raw juice from katuk leaves-for weight reduction in Taiwan-was linked to a lung disease (bronchiolitis obliterans). Though katuk has many health benefits, avoid excessive consumption, especially in highly concentrated forms (e.g., juices or extracts).

References

Anju, T. N.K.S.R. Rai, and A. Kumar. 2022. *Sauropus androgynus* (L.) Merr.: a multipurpose plant with multiple uses in traditional ethnic culinary and ethnomedicinal preparations. *Journal of Ethnic Food* 9(1):10. doi: 10.1186/s42779-022-00125-8

FAO. 2022. GAEZ ECOCROP Data Portal Luffa. Rome, Italy, https://gaez.fao.org/pages/ecocrop-find-plant. Search term "Sauropus androgynus"

French, B.R. and A.R. Maynard. 2022. Sauropus androgynus. Food Plants International Database. Food Plants International

Growables. 2022. Katuk - Sauropus androgynus (L.), Growables, Inc. https://www.growables.org/informationVeg/Katuk.htm

Naveena, E. G.J. Janavi, T. Arumungam, and T. Anitha. 2020. Estimation of nutritive composition of *Sauropus androgynus* (Multivitamin plant) at different growth stages and position of leaves. *International Journal of Chemical Studies* 8(3):443-447

Petrus, A.J.A. 2013. Sauropus androgynus (L.) Merrill-a potentially nutritive functional leafy-vegetable. Asian Journal of Chemistry: 25(17):9425-9433

Platel, K. and K. Srinivasan. 2017. Nutritional profile of Chekurmanus (*Sauropus androgynus*), a less explored green leafy vegetable. *The Indian Journal of Nutrition and Diatetics* 54(3):243-252

Price, M.L. 1998. Katuk, Sauropus androgynus, a great vegetable for the hot, humid tropics (with a caution). ECHO Development Notes no. 59

Siemonsma, J.S. and K. Piluek. 1993. Plant Resources of South-East Asia No 8. Pudoc Scientific Publishers

Solikin, S. 2018. Effect of node position and number of stem cutting on the growth andk yield of 'katuk' (Sauropus androgynus (L.) Merr.). El-Hayah 6(4):126-135

Van Welzen, P.C. 2003. Revision of the Malesian and Thai species of Sauropus (Euphorbiaceae: Phyllanthoideae). BLUMEA 48:319-391.

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