



PLANT FACT SHEET

Lagenaria siceraria (Molina) Standley

GENUS *Lagenaria* FAMILY Cucurbitaceae

COMMON NAMES Bottle gourd, African calabash

EDIBLE PARTS AND USES

Edible parts: Seeds, Leaves, Fruit, Vegetable, Flowers

The young fruit are boiled as a vegetable. The skin and seeds are removed. They can also be steamed, fried or pickled.

Young tips and leaves are edible. They are often cooked with milk or coconut milk to improve the flavour. They are also mixed with other edible leaves.

(Old fruit are used as containers, and seeds are not normally edible.)

The seeds are sometimes eaten. They yield an edible oil.

DESCRIPTION

A pumpkin family plant. It is an annual vine with large leaves. It can grow 3-9 m long and spread 3-6 m wide. The thick stems have furrows along them. It can climb over logs by attaching the tendrils which grow out of the stem near the leaf. The leaves are large and have soft hairs especially underneath. Flowers of both sexes are borne in the same plant. The plant produces male flowers first and these are on long stalks. Next it produces female flowers on short stalks. Flowers are large and white. They can be 10 cm across. They are mainly pollinated by insects. Fruit vary in shape. The fruit can be 8-90 cm long. They have brown seeds in a whitish green pulp. There are several varieties.

HABITAT

A tropical plant. It grows from sea level up to 2700 m altitude in the tropics. It grows best in a warm humid climate. It is sensitive to frost. It prefers full sunlight. In Nepal it grows to about 2200 m altitude. It grows best with a night temperature of 17-23°C and day temperatures of 28-36°C. It can grow in arid places. In Argentina it grows below 500 m above sea level. It suits hardiness zones 10-12.

PRODUCTION

Cultivation

To achieve fast and uniform emergence, seed should be soaked overnight. Seeds are best sown in raised beds. Seedlings emerge in 5-7 days. Seedlings can be transplanted is required. Because plants cross pollinate, plant and fruit types vary. Removing the young fruit to use as a vegetable will prolong the life of the plant. Large fruit can be obtained by removing some of the small fruit. A spacing of 1- 2 m is suitable. It prefers a trellis to climb. Because it is shallow rooted weeding needs to be done carefully.

Harvesting and Seed Production

It is fast growing and flowers 2 months after seeding.

NOTES

There are 6 *Lagenaria* species. They are tropical vines.

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



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REFERENCES

- Abbiw, D.K., 1990, Useful Plants of Ghana. West African uses of wild and cultivated plants. Intermediate Technology Publications and the Royal Botanic Gardens, Kew. p 39
- Achigan-Dako, E, et al (Eds), 2009, Catalogue of Traditional Vegetables in Benin. International Foundation for Science.
- Altschul, S.V.R., 1973, Drugs and Foods from Little-known Plants. Notes in Harvard University Herbaria. Harvard Univ. Press. Massachusetts. no. 4373 (As *Lagenaria leucantha*)
- Ambasta, S.P. (Ed.), 2000, The Useful Plants of India. CSIR India. p 313
- Anderson, E. F., 1993, Plants and people of the Golden Triangle. Dioscorides Press. p 214
- Ara, R. I. T., 2015, Leafy Vegetables in Bangladesh. Photon eBooks. p 59
- Arobaya, A., Y. S. & Pattiselanno, F., 2007, The useful plants of Dani ethnic group at the Baliem Valley of Papua
- Balkrishna, A., et al, 2022, Indigenous Uses of Plants among Forest-dependent Communities of Seijosa, Arunachal Pradesh. International Journal of Economic Plants 2022, 9(1):064-080
- Beckstrom-Sternberg, Stephen M., and James A. Duke. "The Foodplant Database." <http://probe.nalusda.gov:8300/cgi-bin/browse/foodplantdb>. (ACEDB version 4.0 - data version July 1994)
- Bianchini, F., Corbetta, F., and Pistoia, M., 1975, Fruits of the Earth. Cassell. p 108
- Bodkin, F., 1991, Encyclopedia Botanica. Cornstalk publishing, p 614
- Boedecker, J., et al, 2014, Dietary contribution of Wild Edible Plants to women's diets in the buffer zone around the Lama forest, Benin – an underutilized potential. Food Sec. 6:833-849
- Burkill, H. M., 1985, The useful plants of west tropical Africa, Vol. 1. Kew.

- Burkill, I.H., 1966, A Dictionary of the Economic Products of the Malay Peninsula. Ministry of Agriculture and Cooperatives, Kuala Lumpur, Malaysia. Vol 2 (I-Z) p 1316 (As *Lagenaria leucantha*)
- Bussman, R. W., et al, 2021, Unity in diversity—food plants and fungi of Sakartvelo (Republic of Georgia), Caucasus. *Journal of Ethnobiology and Ethnomedicine* (2021) 17:72 p 8
- Chauhan, D., et al, 2014, Diversity of leafy vegetables used by tribal peoples of Chhattisgarh, India. *Int.J.Curr.Microbiol.App.Sci* (2014) 3(4): 611-622 (As *Lagenaria vulgaris*)
- Chin, H.F., & Yong, H.S., 1996, Malaysian Fruits in Colour. Tropical press, Kuala Lumpur p 74
- Cundall, P., (ed.), 2004, Gardening Australia: flora: the gardener's bible. ABC Books. p 792
- D'Ambrosio, U., & Puri, R. K., 2016, Foodways in transition: food plants, diet and local perceptions of change in a Costa Rican Ngäbe community. *Journal of Ethnobiology and Ethnomedicine* (2016) 12:3 p 22
- Dansi, A., et al, 2008, Traditional leafy vegetables and their use in the Benin Republic. *Genet Resour Crop Evol* (2008) 55:1239-1256
- Devi, O. S., et al, 2021, Wild edible plants associated with the people of Thoubal Khunou village and its migrated villagers. *Int. J. Adv. Res. Biol. Sci.* 8(9): 72-90 (As *Lagenaria vulgaris*)
- Dey, A. & Mukherjee, A., 2015, Living and Survival Amidst Hunger: Wild Edible Botanicals as a Prime Forest Productivity in the Rural Purulia District, West Bengal, India from Colonial to Present. *Research Journal of Forestry* 9(3): 71-86 (As *Lagenaria vulgaris*)
- Dhyani, S.K., & Sharma, R.V., 1987, Exploration of Socio-economic plant resources of Vyasi Valley in Tehri Garhwal. *J. Econ. Tax. Bot. Vol. 9 No. 2* pp 299-310
- Edwards. S., et al, (Eds), 1995, Flora of Ethiopia and Eritrea. Vol.2, Part 2 Canellaceae to Euphorbiaceae. Uppsala, Sweden. p 162
- Esquinas-Alcazar, et al, 1983, Genetic Resources of Cucurbitaceae. International Board of Plant Genetic Resources.
- Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 87
- FAO, 1988, Traditional Food Plants, FAO Food and Nutrition Paper 42. FAO Rome p 343
- Farooq, S., et al, 2012, Ethnobotanical Studies of the Flora of Tehsil Birmal in South Waziristan Agency, Pakistan. *Pak. J. Weed Sci. Res.* 18(3): 277-291
- Feld, D., 2021, A Systematic Checklist of Food Plants, including Herbs and Spices, and with an Index. p 9
- Flora of Australia, Volume 8, Lecythidales to Batales, Australian Government Publishing Service, Canberra (1982) p 172
- Flora of Pakistan. www.eFloras.org
- Foo, J.T.S.(ed), 1996, A Guide to Common Vegetables. Singapore Science Foundation. p 58
- Fowler, D. G., 2007, *Zambian Plants: Their Vernacular Names and Uses.* Kew. p 22
- French, B.R., 1986, Food Plants of Papua New Guinea, A Compendium. Asia Pacific Science Foundation p
- French, B.R., 2010, Food Plants of Solomon Islands. A Compendium. Food Plants International Inc. p 138
- Gangte, H. E., et al, 2013, Wild Edible Plants used by the Zou Tribe in Manipur, India. *International Journal of Scientific and Research Publications*, Volume 3, Issue 5 (As *Lagenaria vulgaris*)
- Goode, P., 1989, Edible Plants of Uganda. FAO p 26
- Grubben, G. J. H. and Denton, O. A. (eds), 2004, Plant Resources of Tropical Africa 2. Vegetables. PROTA, Wageningen, Netherlands. p 349
- Guil-Guerrero, J. L., et al, 2001, Edible Wild Plants. in *Recent Progress in Medicinal Plants Vol. 8* Sci. Tech publishing, Texas (As *Lagenaria vulgaris*)

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