PLANT FACT SHEET

Stevia rebaudiana (Bertoni) Bertoni

GENUS *Stevia* **FAMILY** Asteraceae

COMMON NAMES Stevia, Sugar-leaf, Sweet Herb Of Paraguay

EDIBLE PARTS AND USES

Edible parts: Leaves

The leaves are dried and can be used for sweetening. They are also used to make a tea.
They can also be cooked and eaten as a vegetable.
The powdered herb is used as a sugar substitute.

DESCRIPTION

A perennial shrub. It grows to 0.5-1 m tall. Plants are clumpy bushes about 75 cm high and 60 cm wide. The leaves are 2-3 cm long. They are small, oblong and have teeth around the edge. The flower heads are on the tips of stems. They are in clusters and are white. The fruit are very small and have one seed. They have feathery plumes which help them spread.

HABITAT

A tropical and subtropical plant. It is frost tender. It requires a warm and sunny location. It can grow on a range of soils and suits sandy soils. It grows naturally on infertile, sandy acid soils. They do best in rich loamy soil. Composting or mulching is needed on sandy soils. They cannot stand water-logging but need constant soil moisture. Soil temperatures above 10-15°C are needed for satisfactory plant growth. It grows naturally in semi-humid subtropical climates with temperatures between 21°-43°C. It grows where average temperatures are 24°C. It often grows in places with shallow water tables. It requires short day-lengths. It grows in areas with up to 1375 mm of rain a year.

PRODUCTION

Cultivation

The seed are only sown shallowly. Seeds are slow and difficult to get to germinate. It can be grown from cuttings. It is best to select cuttings from known sweet (high stevioside) plants. Plants should be spaced 40-50 cm apart. Harvesting is done by pruning off the branches then removing the leaves. The plants can be grown for 2 years then are best replanted.

Harvesting and Seed Production

Sweetness increases with longer growing periods and as temperatures and daylength decrease moving the plant towards a flowering state. The plant is dried and threshed to remove the stem material which has little sweetener content. Leaves can be sold in this condition or are further processed.

NOTES

There are about 235 Stevia species in the neotropics. It is a sweetener much more effective than sucrose. It reduces blood sugar and contains few calories. It is therefore used as a medicine for diabetes and to lower blood pressure. It has antioxidants.

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)

REFERENCES

Anales Ci. Parag. ser. 1, 5:3. 1905

Andrare, G. M. M., et al, 2023, Plantas Alimenticias Nao Convencionais (PANC) Nos Levantamentos Etnobotanicos do Brazil. Novos Cadernos NAEA v. 25 No. 2 p 203

Bortolotto, I. M., et al, 2018, Lista preliminar das plantas alimenticias nativas de Mato Grosso do Sul, Brasil. Iheringia, Serie Botanica, Porto Alegre, 73 (supl.):101-116

Darley, J.J., 1993, Know and Enjoy Tropical Fruit. P & S Publishers. p 132

Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 42

Gonzalez, C., et al, 2014, Main properties of steviol glycosides and their potential in the food industry: a review. Fruits, Vol. 69, p. 127-141

Hu, Shiu-ying, 2005, Food Plants of China. The Chinese University Press. p 748

Hermandez Bermejo, J.E., and Leon, J. (Eds.), 1994, Neglected Crops. 1492 from a different perspective. FAO Plant Production and Protection Series No 26. FAO, Rome. p 20

Hibbert, M., 2002, The Aussie Plant Finder 2002, Florilegium. p 294

Kermath, B. M., et al, 2014, Food Plants in the Americas: A survey of the domesticated, cultivated and wild plants used for Human food in North, Central and South America and the Caribbean. On line draft. p 838

Kiple, K.F. & Ornelas, K.C., (eds), 2000, The Cambridge World History of Food. CUP p 1858

Morton, 1976,

Plants for a Future database, The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, UK. http://www.scs.leeds.ac.uk/pfaf/

Tadhani, M. B., et al, 2007, In vitro antioxidant activities of Stevia rebaudiana leaves and callus. Journal of Food Composition and Ananalysis 20 (2007) 323–329

Wiersema, J. H. & Leon, B., 2013, World Economic Plants. A Standard Reference CRC Press. 2nd Ed. p 661

World Checklist of Useful Plant Species 2020. Royal Botanic Gardens, Kew

PROVIDED BY **Food Plants International**

French, B.R. & Maynard, A.R. Food Plants International Database. Food Plants International

LICENCE CC BY-NC-SA 3.0

ONLINE FACT SHEET https://www.echocommunity.org/en/resources/49846899-06a8-47bd-92ef-d110317c53a0