PLANT FACT SHEET

Maranta arundinacea (L.) Midon

GENUS *Maranta* **FAMILY** Marantaceae

COMMON NAMES West Indian Arrowroot

EDIBLE PARTS AND USES

Edible parts: Rhizome, Root, Vegetable

The rhizomes are used in soups or sauces. They can be just scraped & boiled.
They can be used for making flour. It is an easily digested starchy flour. It is a good thickener in sauces.
The fresh rhizomes can be stored for 7-8 days.
CAUTION It is important to peel off the skin scales or they give a bitter taste to the starch.

DESCRIPTION

A perennial plant up to 2 m high with large fleshy underground rhizomes. The stem is erect. There are 4-8 leaves near the base. There are 1-8 leaves on the stem. It has large leaves on long stalks near the base. These stalks can be 3.5-20 cm long. The leaf blade is 12 cm long and the leaf stalk clasps the stem. Flowers are small and white. There can be several on each leafy shoot. They occur on the ends of branches. There are 1-2 bracts under each 2-3 flowers. The rhizomes can be 20 cm long and about 3 cm across. They are covered with fleshy scales. The fruit are capsules which are green and tinged red-brown. They are oval and 7-8 mm long by 4-5 mm wide. The seeds are brown.

HABITAT

It is a tropical plant. It grows well in hot humid climates. A temperature of 20-30°C is best. Plants grow from the coast up to 900 m altitude in the tropics. It needs a rainfall of 1500 to 2000 mm yearly. It is cultivated in S China for starch. It needs deep, well drained and slightly acid soil. It suits plant hardiness zones 10-12. Bontoc. In Yunnan. At ECHO.

PRODUCTION

Cultivation

Plants are grown from pieces of rhizome or occasionally suckers. A spacing of 1 m x 0.5 m is suitable or can be closer. 3,000-3500 kg of planting material are required for one hectare. The pieces are planted 6-8 cm deep. It requires a fertile soil. Normally flowers are removed to allow as much storage as possible in the rhizomes.

Harvesting and Seed Production

Rhizomes are ready for harvest after about 11 months. Successive crops are grown in the same site for 5-7 years. Yields of 12.5 t per hectare are average. These produce 8-16% starch.

NOTES

There are about 32 Maranta species. There are 25 species in tropical America.

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

Ambasta, S.P. (Ed.), 2000, The Useful Plants of India. CSIR India. p 356

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 213

Bianchini, F., Corbetta, F., and Pistoia, M., 1975, Fruits of the Earth. Cassell. p 220

Bodkin, F., 1991, Encyclopedia Botanica. Cornstalk publishing, p 675

Bodner, C. C. and Gereau, R. E., 1988, A Contribution to Bontoc Ethnobotany. Economic Botany, 43(2): 307-369

Bremness, L., 1994, Herbs. Collins Eyewitness Handbooks. Harper Collins. p 187

Burkill, H. M., 1985, The useful plants of west tropical Africa, Vol. 4. 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 1447

Cheifetz, A., (ed), 1999, 500 popular vegetables, herbs, fruits and nuts for Australian Gardeners. Random House p 82

Chizmar Fernandez, C., et al, 2009, Plantas comestibles de Centroamerica. Instituto de Biodiversidad, Costa Rica. p 233

Cobley, L.S. (rev. Steele, W.M.) 2nd Ed., 1976, An Introduction to the Botany of Tropical Crops. Longmans. p 126

Cundall, P., (ed.), 2004, Gardening Australia: flora: the gardener's bible. ABC Books. p 874

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 26

Dutta, U., 2012, Wild Vegetables collected by the local communities from the Churang reserve of BTD, Assam. International Journal of Science and Advanced Technology. Vol. 2(4) p 122

Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 149

FAO, 1993, Valor Nutritivo Y Usis en Alimantacion humana de Algunis Cultivos Autoctonos Subexplotados de Mesoamerica. FAO, Santiago, Chile. p 89

French, B.R., 1986, Food Plants of Papua New Guinea, A Compendium. Asia Pacific Science Foundation p 142

French, B.R., 2010, Food Plants of Solomon Islands. A Compendium. Food Plants International Inc. p 39

Gragson, T. L., 1997, The Use of Underground Plant Organs and Its Relation to Habitat Selection among the Pume Indians of Venezuela. Economic Botany, Vol. 51, No. 4, pp. 377-384

Hedrick, U.P., 1919, (Ed.), Sturtevant's edible plants of the world. p 403

Hibbert, M., 2002, The Aussie Plant Finder 2002, Florilegium. p 193

Hu, Shiu-ying, 2005, Food Plants of China. The Chinese University Press. p 330

Jardin, C., 1970, List of Foods Used In Africa, FAO Nutrition Information Document Series No 2.p 18

Kay, D.E., 1973, Root Crops, Digest 2, Tropical Products Institute, London, p 16

Kays, S. J., and Dias, J. C. S., 1995, Common Names of Commercially Cultivated Vegetables of the World in 15 languages. Economic Botany, Vol. 49, No. 2, pp. 115-152

Kiple, K.F. & Ornelas, K.C., (eds), 2000, The Cambridge World History of Food. CUP p 1721

Latham, P., 2004, Useful Plants of Bas-Congo province. Salvation Army & DFID p 182

Lembaga Biologi Nasional, 1977, Ubi-Ubian, Balai Pustaka, Jakarta. p 32

Lim, T. K., 2015, Edible Medicinal and Non Medicinal Plants. Volume 9, Modified Stems, Roots, Bulbs. Springer p 54

Llamas, K.A., 2003, Tropical Flowering Plants. Timber Press. p 272

Macmillan, H.F. (Revised Barlow, H.S., et al) 1991, Tropical Planting and Gardening. Sixth edition. Malayan Nature Society. Kuala Lumpur. p 341

Maezumi, S. Y., et al, 2018, The legacy of 4,500 years of polyculture agroforestry in the eastern Amazon. Open Research Exeter. p 40

Medhi, P. & Borthakur, S. K., 2012, Phytoresources from North Cachur Hills of Assam -3: Edible plants sold at Hflong market. Indian Journal of Natural Products and Resources. 3(1) pp 84-109

Miguel, E., et al, 1989, A checklist of the cultivated plants of Cuba. Kulturpflanze 37. 1989, 211-357

Morley, B. & Everard, B., 1970, Wild Flowers of the World. Ebury press. Plate 189

Morton, J., 1961, Plants for survival in South Florida. Florida State Horticultural Society. p 319

Ochse, J.J. et al, 1931, Vegetables of the Dutch East Indies. Asher reprint. p 480

Omawale, 1973, Guyana's edible plants. Guyana University, Georgetown p 79

Parham, B. E. V., 1972, Plants of Samoa. New Zealand Department of Scientific and Industrial Research. Information Series. No. 85 p 77

Patiri, B. & Borah, A., 2007, Wild Edible Plants of Assam. Geethaki Publishers. p 143

Phangchopi, U., et al, 2015, Diversity of wild edible plants in Marat Longri Wildlife Sanctuary, Assam. Indian Journal of Natural Products and Resources Vol. 6(4), December 2015 pp. 305-313

Phon, P., 2000, Plants used in Cambodia. © Pauline Dy Phon, Phnom Penh, Cambodia. p 429

Piedra-Malagón, E. M., et al, 2022, Edible native plants of the Gulf of Mexico Province. Biodiversity Data Journal 10: e80565 p 25

Purseglove, J.W., 1972, Tropical Crops. Monocotyledons. Longmans p 336

Rajapaksha, U., 1998, Traditional Food Plants in Sri Lanka. HARTI, Sri Lanka. p 295

Full reference list (21 more) at https://www.echocommunity.org/en/resources/f0c8e807-73e9-4740-bf66-14010b1411f0

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/f0c8e807-73e9-4740-bf66-14010b1411f0