PLANT FACT SHEET

Pandanus tectorius (Solander) Parkinson

GENUS *Pandanus* **FAMILY** Pandanaceae

COMMON NAMES Coastal Pandanus, Beach pandanus, Screwpine

EDIBLE PARTS AND USES

Edible parts: Nuts, Leaves, Fruit, Flowers, Spice

The fleshy portion of the lower part of the mature fruit is eaten raw. It can be cooked or made into flour.
The seeds are eaten cooked.
CAUTION: The seeds can contain calcium oxalate crystals. These can be removed by cooking and straining. They irritate the mouth.
The tender shoots or terminal buds are eaten as a vegetable. Flowers and pollen are edible.
The tip of the aerial root is eaten raw or roasted. They can be processed into a drink.
The leaves can be used to flavour sweet dishes.

DESCRIPTION

An erect branched shrub 3 to 5 m high. It can be 14 m tall. The trunk has several prop roots. The stems are prickly. The leaves are spirally crowded towards the ends of branches and covered with waxy powder. They are up to 1.5 m long and 3 to 5 cm wide. The edge of the leaf and the midrib have sharp spiny teeth pointing towards the end of the leaf. Male and female flowers occur on separate trees. Male flowers have showy white bracts. The female plants produce woody, pineapple like fruit. The fruit are alone and hang down. They are rounded and 20 cm long. They are composed of 50 to 75 fibrous fleshy fruit with a stone in the centre. They are somewhat angular. There are hundreds of local named varieties. There is tremendous variation in this plant. Some leaves do not have spines and the shape and size of the fruit varies. (See the many synonyms!)

HABITAT

A tropical plant. It grows in the lowlands. It grows on the sandy edges of mangroves and along rivers. They are very common along the seashore throughout the islands of the Philippines. They are never found very far inland. It usually grows from sea level to 20 m altitude. In Samoa it grows to 300 m altitude. It usually grows in places with an average annual temperature range of 24-28°C. The rainfall is usually between 1500-4000 mm per year. It can grow in soils with a pH between 6-10. It can grow in salty soils. It grows on coral atolls. It suits hardiness zones 11-12. In XTBG Yunnan.

PRODUCTION

Cultivation

Plants are normally self sown. They can be grown from fresh seed. They are best sown in waterlogged soil. The preferred kinds are grown from cuttings. Cuttings of 30-40 cm are suitable. Seeds can float on ocean currents and still germinate after several months. It is used as a hedge or fence.

Harvesting and Seed Production

Plants grow slowly. It produces 8-12 fruit per year.

NOTES

There are about 600 Pandanus species. They grow in the tropics. (It is similar to and often confused with Pandanus odoratissimus which occurs in India and is being grown elsewhere). The darker yellow fleshed kinds have high proVitamin A carotenoids.

PICTURES



Credit: Food Plants International (Bruce French)



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REFERENCES

Barrau, J., 1976, Subsistence Agriculture in Polynesia and Micronesia. Bernice P. Bishop Museu, Bulletin 223 Honolulu Hawaii. Kraus reprint. p 35

Bhargava, N., 1983, Ethnobotanical Studies of the Tribes of Andaman and Nicobar Islands, India. 1. Onge. Economic Botany 37(1): 110-119

Blench, R., 2004, Fruits and Arboriculture in the Indo-Pacific Region. Indo-Pacific Prehistory Association Bulletin 24. (Taipei Papers Volume 2) p 39

Bodkin, F., 1991, Encyclopedia Botanica. Cornstalk publishing, p 758 (Also as Pandanus pedunculatus), p 759 (As Pandanus veitchii)

Borrell, O.W., 1989, An Annotated Checklist of the Flora of Kairiru Island, New Guinea. Marcellin College, Victoria Australia. p 40

Bradacs, G., 2008, Ethnobotanical Survey and Biological Screening of Medicinal Plants from Vanuatu. PhD thesis Frankurt University. p 101

Brickell, C. (Ed.), 1999, The Royal Horticultural Society A-Z Encyclopedia of Garden Plants. Convent Garden Books. p 745

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 1678

Cabalion, P. and Morat, P., 1983, Introduction le vegetation, la flore et aux noms vernaculaires de l'ile de Pentcoste (Vanuatu), In: Journal d'agriculture traditionnelle et de botanique appliquee JATBA Vol. 30, 3-4

Clarke, W.C. & Thaman, R.R., 1993, Agroforestry in the Pacific Islands: Systems for sustainability. United Nations University Press. New York. p 250

Costion, C. M. & Lorence, D. H., 2012, The Endemic Plants of Micronesia: A Geographical Checklist and Commentary. Micronesica 43(1): 51 – 100, 2012

Cowie, I, 2006, A Survey of Flora and vegetation of the proposed Jaco-Tutuala-Lore National Park. Timor-Lests (East Timor) www.territorystories.nt/gov.au p 52

Cronin, L., 1989, The Concise Australian Flora. Reed. p 254

Cundall, P., (ed.), 2004, Gardening Australia: flora: the gardener's bible. ABC Books. p 978

Elevitch, C.R.(ed.), 2006, Traditional Trees of the Pacific Islands: Their Culture, Environment and Use. Permanent Agriculture Resources, Holualoa, Hawaii. p 563

Elliot, W.R., & Jones, D.L., 1997, Encyclopedia of Australian Plants suitable for cultivation. Vol 7. Lothian. p 156

Engel, D.H., & Phummai, S., 2000, A Field Guide to Tropical Plants of Asia. Timber Press. p 183

Englberger, L. et al, 2003, Pacific pandanus fruit: an ethnographic approach to understanding an overlooked source of provitamin A carotenoids. Asia Pacific J. Clin Mutr 2003; 12(1): 38-44

Englberger, L., et al, 2005, Carotenoid content of pandanus fruit cultivars and other foods of the republic of Kiribati. Public health nutrition 9(5), 631-643

Etherington, K., & Imwold, D., (Eds), 2001, Botanica's Trees & Shrubs. The illustrated A-Z of over 8500 trees and shrubs. Random House, Australia. p 510

Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 165

Flora of Pakistan. www.eFloras.org

Franklin, J., Keppel, G., & Whistler, W., 2008, The vegetation and flora of Lakeba, Nayau and Aiwa Islands, Central Lau Group, Fiji. Micronesica 40(1/2): 169–225, 2008

French, B.R., 1986, Food Plants of Papua New Guinea, A Compendium. Asia Pacific Science Foundation p 160

French, B.R., 2010, Food Plants of Solomon Islands. A Compendium. Food Plants International Inc. p 181

Friday, J. B., 2005, Forestry and Agroforestry Trees of East Timor. http://www.ctahr.hawaii.edu/forestry/data/Timor/Timor trees.html

Gard. Chron. 1868:349. 1868 (As Pandanus veitchii)

Greig, D., 1996, Flowering Natives for Home Gardens. Angus & Robertson. p 277 (As Pandanus pedunculatus)

Habitat Management Profile – Saibai Island. Appendix C. Preliminary List of Useful Plants for Saibai Island. p 117

Haslam, S., 2004, Noosa's Native Plants. Noosa Integrated Catchment Assn. Inc. p 31

Hedrick, U.P., 1919, (Ed.), Sturtevant's edible plants of the world. p 460 (As Pandanus pedinculatus)

Hibbert, M., 2002, The Aussie Plant Finder 2002, Florilegium. p 218

Holliday, I., 1989, A Field Guide to Australian Trees. Hamlyn. p 278 (As Pandanus pedunculatus)

INFOODS:FAO/INFOODS Databases

Jackes, B.R., 2001, Plants of the Tropics. Rainforest to Heath. An Identification Guide. James Cook University. p 72

Jackes, B. R., 2010, Plants of Magnetic Island. 3rd Edition. James Cook University, Australia. p 28

J. voy. South Seas 46. 1773 (ex Z.[J.P. Duroi], Naturforscher (Berlin) 4:250. 1774)

Kitalong, A. H., DeMeo, R. A., & Holm, T., 2013, A Field Guide to the Native Trees of Palau. 2nd edition. USDA p128

Kiple, K.F. & Ornelas, K.C., (eds), 2000, The Cambridge World History of Food. CUP p 434, p 1859 (As Pandanus veitchii)

Kuo, W. H. J., (Ed.) Taiwan's Ethnobotanical Database (1900-2000), http://tk.agron.ntu.edu.tw/ethnobot/DB1.htm

Lebot, V. & Sam, C., Green desert or 'all you can eat'? How diverse and edible was the flora of Vanuatu before human introductions?. Terra australis 52 p 409

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