PLANT FACT SHEET

Use with caution

This plant can be harmful if it is eaten raw, in large amounts or without the right preparation. Read the whole fact sheet before use.

Talinum fruticosum (L.) Juss.

GENUS *Talinum* **FAMILY** Talinaceae

COMMON NAMES Waterleaf

EDIBLE PARTS AND USES

Edible parts: Leaves, Vegetable

The leaves and tender stems are eaten raw or cooked. They are slightly sour. Steaming the leaves produces less brown discolouration and they are less slimy. They can also be dried and stored. They are used in soup. Caution: Due to oxalates in the leaves, large amounts should not be eaten. They can be removed by cooking and leaching. Also fermentation, steaming and baking. It is good to use in soups.

DESCRIPTION

A small leafy branching herb. It grows up to 35-60 cm high. It can be erect or lie over. The roots are swollen and fleshy. The stems are succulent. The leaves are alternate and have very short stalks and are fairly soft and light green in colour. The leaves can be 7.5 cm long. In the shade they grow larger. The flowers are on a 3 sided stalk at the top of the plant. There is a clump of pale pink flowers with 5 petals. Seeds are very small and black.

HABITAT

A tropical plant. It occurs in coastal tropical areas and up to about 1,600 m altitude. Due to the C4 pathway optimum growth is achieved with high temperatures, high soil fertility, plenty of sunlight and sufficient moisture. The plant will also grow adequately in poorer conditions including some drought and a little shade. It can grow in arid places.

PRODUCTION

Cultivation

It can be grown from seeds or stem cuttings. There are about 4000 seeds per gram. Seed collection is not easy because the seed capsules split open very easily and the seeds drop out. Also plants don't always produce seeds readily. Growing from seed is easiest by sowing seeds in a small nursery then transplanting the small plants when they are about 5-8 cm high. With very small seeds like these, it is best to mix the seeds with dry sand before sowing. Then a small amount of the seed/sand mixture can be sown and the seeds will not be too close together. Seeds will grow in about 6 days. Often plants once established become self sown from natural

seed falling. Alternatively cuttings about 15 cm long of the more mature but not woody stems can be used. The excess leaves should be removed from the cuttings. A spacing of 20 cm is suitable. Plants grow better in fertile soil, but will grow in fairly low fertility soils. They need plenty of moisture.

Harvesting and Seed Production

The leaves and tender stems can keep being produced for up to a year. Older plants can be cut back and allowed to sprout again. Plants start producing 4-6 weeks after planting. Leaf tips may be picked every two weeks for up to a year. Normally the top shoots are picked out first, to let the side shoots grow. A yield of up to 5 kg of edible tips per square metre area of plants over one year can be achieved.

NOTES

There are about 50 Talinum species. They grow in warm places.
Also put in the family Portulacaceae.
Can have higher oxalates. High levels on magnesium can reduce these effects. Should not have above 180 mg/day as this can have serious consequences.

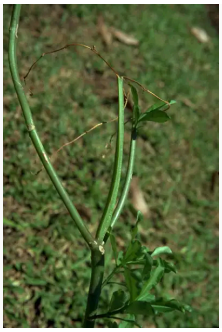
PICTURES



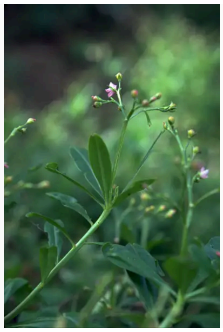
Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)

REFERENCES

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 40 (As Talinum triangulare)

Achigan-Dako, E, et al (Eds), 2009, Catalogue of Traditional Vegetables in Benin. International Foundation for Science. (As Talinum triangulare)

Ambasta, S.P. (Ed.), 2000, The Useful Plants of India. CSIR India. p 618 (As Talinum triangulare)

Andarwulan, N., et al, 2010, Flavonoid content and antioxidant activity of vegetables from Indonesia. Food Chemistry 121: 1231-1235 (As Talinum triangulare)

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 223

Arora, R. K., 2014, Diversity in Underutilized Plant Species - An Asia-Pacific Perspective. Bioversity International. p 46 (As Talinum triangulare)

Avouhou, H. T., et al, 2012, Ethnobotanical Factors Influencing the Use and Management of Wild Edible Plants in Agricultural Environments in Benin. Ethnobotany Research & Applications Vol 10:571-592 (As Talinum triangulare)

Bernholt, H. et al, 2009, Plant species richness and diversity in urban and peri-urban gardens of Niamey, Niger. Agroforestry Systems 77:159-179 (As Talinum triangulare)

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

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 (As Talinum triangulare)

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 2159 (As Talinum triangulare)

Codjia, J. T. C., et al, 2003, Diversity and local valorisation of vegetal edible products in Benin. Cahiers Agricultures 12:1-12 (As Talinum triangulare)

Dansi, A., et al, 2008, Traditional leafy vegetables and their use in the Benin Republic. Genet Resour Crop Evol (2008) 55:1239–1256 (As Talinum triangulare)

Diop, A. I., et al, 2021, Cultural importance of wild edible plants in three sympatric communities: Agni, Akyé and Gwa in the Department of Alépé (Southeast of Côte d'Ivoire). Ethnobotany Research and Applications 22:35. p 7 (As Talinum triangulare)

Epenhuijsen C.W. van., 1974, Growing Native vegetables in Nigeria. FAO Rome, p 93 (As Talinum triangulare)

Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 187 (As Talinum triangulare)

Fongnzossie Fedoung, E., et al, 2020, Wild edible plants and mushrooms of the Bamenda Highlands in Cameroon: ethnobotanical assessment and potentials for enhancing food security. Journal of Ethnobiology and Ethnomedicine 16:12 (As Talinum triangulare)

French, B.R., 1986, Food Plants of Papua New Guinea, A Compendium. Asia Pacific Science Foundation p 72 (As Talinum triangulare)

Geesink, 1971, Portulacaceae, Flora Malesiana, Ser. 1 Vol. 7 (1) p 124 (As Talinum triangulare)

Gomes, L.C.A., et al, 2023, Patterns of use of wild food plants by Brazilian local communities: systematic review and meta-analysis. Journal of Ethnobiology and Ethnomedicine. 19:47 p 10

Grivetti, L. E., 1980, Agricultural development: present and potential role of edible wild plants. Part 2: Sub-Saharan Africa, Report to the Department of State Agency for International Development. p 29, 32 (As Talinum triangulare)

Grubben, G. J. H. and Denton, O. A. (eds), 2004, Plant Resources of Tropical Africa 2. Vegetables. PROTA, Wageningen, Netherlands. p 519 (As Talinum triangulare)

Hahn, K., et al, 2018, The use of wild plants for food: a national scale analysis for Burkina Faso (West Africa). FVSS FoodPlants Supplement (As Talinum triangulare)

Harris, D. J., 2002, The vascular plants of the Dzanga-Sangha Reserve, Central African Republic. National Botanic Garden of Belgium, 2002. – 274 pages p 157

Herklots, (As Talinum triangulare)

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. p18 (As Talinum triangulare)

Japanese International Research Centre for Agricultural Science www.jircas.affrc.go.jp/project/value_addition/Vegetables (As Talinum triangulare)

Jardin, C., 1970, List of Foods Used In Africa, FAO Nutrition Information Document Series No 2.p 105 (As Talinum triangulare)

Katz, E., et al, 2012, No greens in the forest? Note on the limited consumption of greens in the Amazon. Acta Soc Bot Pol 81(4):283–293 (As Talinum triangulare)

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 (As Talinum triangulare)

Full reference list (38 more) at https://www.echocommunity.org/en/resources/6f56ab36-2d9c-4b10-9ff9-86cd4327dde7

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/6f56ab36-2d9c-4b10-9ff9-86cd4327dde7