



PLANT FACT SHEET

Citrullus lanatus (Thunb.) Matsum. & Nakai

GENUS *Citrullus* FAMILY Cucurbitaceae

COMMON NAMES Watermelon

EDIBLE PARTS AND USES

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

The fruit is eaten raw when ripe.

Small unripe fruit can be cooked as a vegetable.

Seeds are also eaten. They are dried, soaked in salt water then roasted. Oil is extracted from the seeds. The seeds are ground and made into bread.

Occasionally very young leaves are eaten.

The skin is sometimes candied in vinegar then eaten with fish.

The syrup from the fruit can be used in jams and cakes.

DESCRIPTION

An annual climber with deeply divided leaves and tendrils along the vine. It trails over the ground and has hairy, angular stems. The leaves are on long leaf stalks. The leaves are deeply divided along their length. These lobe are rounded and can themselves be divided. The leaves are 5-20 cm long by 2-12 cm across. The tendrils are divided. The plant has separate male and female flowers on the same plant. The flowers are pale yellow and smaller than pumpkins. The flowers occur in the axils of leaves. The male flowers appear first. Fruit are large and round or oval. They can be 60 cm long. Fruit have a hard smooth skin. Several fruit colours and shapes occur. Often they have a dark green mottle. The fruit has reddish juicy flesh and black or red seeds. The seeds are oval shaped and smooth. The seed size and shape vary considerably.

HABITAT

A tropical plant. They grow best on the coast in the tropics but will grow up to about 1,700 m altitude. They will not stand water-logging and do well on sandy soils. Plants are frost sensitive. Seed will not germinate below 21°C. Temperatures between 24-30°C are suitable. It can grow in arid places. Fruit are sweeter in arid warm areas. It suits hardiness zones 10-12.

PRODUCTION

Cultivation

Plants are grown from seed. They are suitable mainly for the dry season. A spacing of 1.5 to 2 m is suitable. They grow easily from seed. They do best when fully exposed to the sun. Seed can be dried and stored. If too much vegetative growth occurs picking out the tip to produce side branches with more fruit.

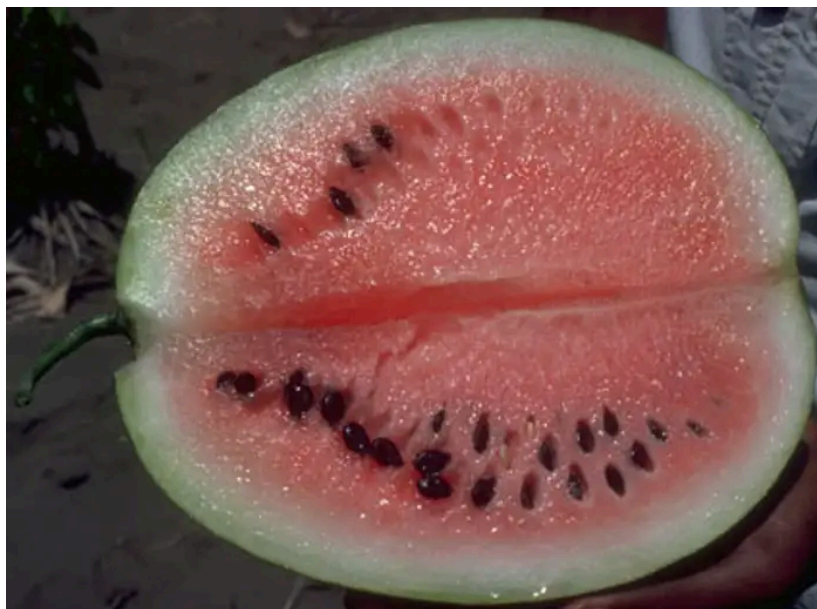
Harvesting and Seed Production

Plants grow quickly. Harvesting commences after 4-5 months. The main fruit season is November to January. The ripeness can be picked by tapping the fruit to get a dull sound, the part of the fruit on the ground changes from green to light yellow and the tendril near the base of the fruit becomes dry. Fruit yield can be 45-60 tons per hectare. There can be 4-6 fruit on each plant.

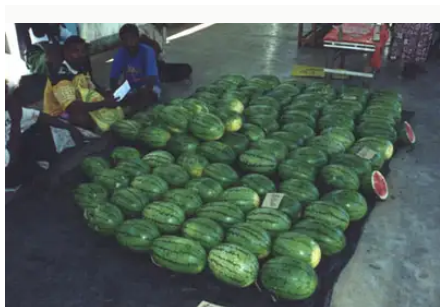
NOTES

There are 3 *Citrullus* species. The fruit are mostly water with little food value or taste. Some kinds are being selected for seeds for oil. The seed oil is nutritious.

PICTURES



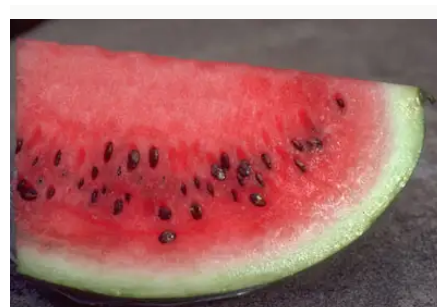
Credit: Food Plants International (Bruce French)



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REFERENCES

- Achigan-Dako, E, et al (Eds), 2009, Catalogue of Traditional Vegetables in Benin. International Foundation for Science.
- Addis, G., Asfaw, Z & Woldu, Z., 2013, Ethnobotany of Wild and Semi-wild Edible Plants of Konso Ethnic Community, South Ethiopia. *Ethnobotany Research and Applications*. 11:121-141
- Ambasta, S.P. (Ed.), 2000, *The Useful Plants of India*. CSIR India. p 127 (As *Citrullus vulgaris*)
- Anderson, E. F., 1993, *Plants and people of the Golden Triangle*. Dioscorides Press. p 206

- Andrara, G. M. M., et al, 2023, *Plantas Alimenticias Nao Convencionais (PANC) Nos Levantamentos Etnobotanicos do Brazil*. *Novos Cadernos NAEA* v. 25 No. 2 p 207
- Arnold, T.H., Wells, M.J. & Wehmeyer, A.S., Khoisan food plants: taxa with potential for future economic exploitation, in Wickens, G.E., Goodin, J.R., and Field, D.V., (Eds.) 1985, *Plants for Arid Lands*. Unwin Hyman, London, p 73

- Baa-Poku, F. & Asante, I. K., 2020, Use of Neglected and Underutilized Crop Species (NUCS) in some farming communities in the Upper Afram and Upper Dayi River Basins in Ghana. *International Journal of Technology and Management Research* 5 (2): 48-63
- Barrau, J., 1976, Subsistence Agriculture in Melanesia. Bernice P. Bishop Museum, Bulletin 219 Honolulu Hawaii. Kraus reprint. p 53 (As *Citrullus vulgaris*)
- BHANDARI,
- 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)
- Bennett, B. C., 1990, Useful Plants of Amazonian Ecuador. US Agency for International Development. Fifth Progress Report. New York Botanical Gardens. p 40
- Bianchini, F., Corbetta, F., and Pistoia, M., 1975, Fruits of the Earth. Cassell. p 138
- Brouk, B., 1975, Plants Consumed by Man. Academic Press, London. p 203
- Bultosa, G., et al, 2020, Plant-based traditional foods and beverages of Ramotswa Village, Botswana. *Journal of Ethnic Foods* (2020) 7:1
- 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 1 (A-H) p 567 (As *Citrullus vulgaris*)
- Bussman, R. W., et al, 2016, A comparative ethnobotany of Khevsureti, Samtskhe-Javakheti, Tusheti, Svaneti, and Racha-Lechkhumi, Republic of Georgia (Sakartvelo), Caucasus. *Journal of Ethnobiology and Ethnomedicine* (2016) 12:4
- Bussman, R. W. et al, 2017, Ethnobotany of Samtskhe-Javakheti, Sakartvelo (Republic of Georgia), Caucasus. *Indian Journal of Traditional Knowledge* Vol. 16(1) pp 7-24
- 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
- Cat. sem. spor. hort. bot. Univ. Imp. Tokyo 30, no. 854. 1916 (l.c. 38. 1920)
- Cheifetz, A., (ed), 1999, 500 popular vegetables, herbs, fruits and nuts for Australian Gardeners. Random House p 179
- Chin, H.F., & Yong, H.S., 1996, Malaysian Fruits in Colour. Tropical press, Kuala Lumpur p 24
- Cobley, L.S. (rev. Steele, W.M.) 2nd Ed., 1976, An Introduction to the Botany of Tropical Crops. Longmans. p 139
- Coe, F. G. & Anderson, G. J., 1997, Ethnobotany of the Miskitu of Eastern Nicaragua. *Journal of Ethnobiology* 17(2): 171-214
- CRÉAC'H, (As *Citrullus vulgaris*)
- Cundall, P., (ed.), 2004, Gardening Australia: flora: the gardener's bible. ABC Books. p 382
- 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
- Dansi, A., et al, 2012, Diversity of the Neglected and Underutilized Crop Species of Importance in Benin. *The Scientific World Journal*. Volume 2012, Article ID 932947, 19 pages
- Diarra, N. et al, 2016, Etude ethnobotanique des plantes alimentaires utilisées en période de soudure dans les régions Sud du Mali. *Int. J. Biol. Chem. Sci.* 10(1): 184-197
- Duarte, M. C., et al, 2022, Diversity of Useful Plants in Cabo Verde Islands: A Biogeographic and Conservation Perspective. *Plants* 2022, 11, 1313 p 10
- Edwards. S., et al, (Eds), 1995, Flora of Ethiopia and Eritrea. Vol.2, Part 2 Canellaceae to Euphorbiaceae. Uppsala, Sweden. p 48
- Ekman Herbarium records Haiti (As *Citrullus vulgaris*)
- Epenhuijsen C.W. van., 1974, Growing Native vegetables in Nigeria. FAO Rome, p 53
- Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 84
- FAO, 1988, Traditional Food Plants, FAO Food and Nutrition Paper 42. FAO Rome p 186
- FAO, 2024, Compendium of forgotten foods in Africa - A companion publication for Integrating Africa's forgotten foods for better nutrition. Accra. <https://doi.org/10.4060/cc5044en> p 79

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