PLANT FACT SHEET

Chenopodium pallidicaule Aellen

GENUS *Chenopodium* **FAMILY** Amaranthaceae

COMMON NAMES Canahua, Canihua, Kaniwa, Quaniwa

EDIBLE PARTS AND USES

Edible parts: Seeds

The seed is used to make a flour called canihuaco. This is used in soups, stews, desserts and to flavour drinks. Up to 20% can be added to bread flour.
The toasted seed can be ground and mixed with sugar and milk as a breakfast cereal.

DESCRIPTION

An annual plant. It grows 25-70 cm high. Two kinds occur. One is more erect while the other in more branching. The leaves have 3 lobes and have leaf stalks. The leaves are alternate. At maturity the leaves and stem turn yellow, pink, orange, red or purple. The flowers are on top and at the ends of branches. The flowers are small. The seed is 0.5-1.5 mm across. They are brown or black.

HABITAT

A tropical plant. It is cold resistant. It is more tolerant of cold than quinoa. It can tolerate frost and dry soils. It grows in the high Andes. It grows between 3,500 and 4,100 m altitude. It is not affected by daylength. The plant needs 500-800 mm of rain. It can tolerate drought. It cannot stand high humidity when young. It can tolerate temperatures down to -10°C and up to 28°C. It needs a pH between 4.8 and 8.5. It can tolerate some salinity.

PRODUCTION

Cultivation

Seeds will grow immediately. The seed is broadcast at 5-8 kg per hectare.

Harvesting and Seed Production

Seeds ripe gradually. Plants are therefore pulled up and shaken but threshed again after 10-15 days. Yields of 400-800 kg per hectare are possible.

NOTES

There are about 100-150-250 Chenopodium species. They are mostly in temperate regions. It is 15-19 % protein.
Also put in the family Chenopodiaceae.

REFERENCES

Castillo, R. O., 1995, Plant Genetic Resources in the Andes: Impact, Conservation, and Management. Crop Science 35:355-360

Dias, A. C., et al, 1955, Nutrient Content and Protein Quality of Quinua and Canihua, Edible Seed Products of the Andes Mountains. Journal of Agricultural and Food Composition 3: 531

Etkin, N.L. (Ed.), 1994, Eating on the Wild Side, Univ. of Arizona. p 50 (As Chenopodium canihua)

Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 77

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 12, 131

Kermath, B. M., et al, 2018, 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. p 266

Kew Plants of the World onLine

Kiple, K.F. & Ornelas, K.C., (eds), 2000, The Cambridge World History of Food. CUP p 1744, 1750, 1841

Plant Ecology - Reviews of Research. 1955, Arid Zone Research VI. UNESCO p 101

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

Repert. Spec. Nov. Regni Veg. 26:126. 1929

Repo-Currasco-Valencia, R. et al., 2009, Chemical and Functional Characteristics of Kaniwa (Chenopodium pallidicaule) Grain, Extrudate and Bran. Plant Foods for Human Nutrition. 64:94-101

Simmonds, N.W., 1979, Quinoa and relatives, in Simmonds N.W.,(ed), Crop Plant Evolution. Longmans. London. p 29

Tapia, M. E., The role of under-utilised plant species with regard to increased food security and improved health of poor poeople, in mountain regions. IIAP-PNUD/Peru

Torre, de la L., et al, 2008, Enciclopedia de las Plantas Útiles del Ecuador. Herbario QCA. Pontificia Universidad Católica del Ecuador. p 157

Ulian, T., et al, 2020, Unlocking plant resources to support food security and promote sustainable agriculture. Plants, People, Planet. 2020;2:421–445.

USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). [Online Database] National Germplasm Resources Laboratory, Beltsville, Maryland. Available: www.ars-grin.gov/cgi-bin/npgs/html/econ.pl (10 April 2000)

van Wyk, B., 2005, Food Plants of the World. An illustrated guide. Timber press. p 130

Wiersema, J. H. & Leon, B., 2013, World Economic Plants. A Standard Reference CRC Press. 2nd Ed. p 168

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

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