



PLANT FACT SHEET

Panicum miliaceum L.

GENUS *Panicum* FAMILY Poaceae

COMMON NAMES True millet, Common millet, Proso

EDIBLE PARTS AND USES

Edible parts: Seeds, Cereal

The seeds can be cooked and eaten whole or ground into flour. They can be used in bread, pasta or dumplings. They are often browned in a skillet before using in casseroles, stews and for stuffings.

They are fermented into tempeh or miso.

The seed can be sprouted and added to soups and salads.

DESCRIPTION

An annual millet grass which grows up to 1 m high. It spreads to 15 cm across. It has a fibrous root system. The stalks are tufted. They are hairy at the base and on the nodes. The leaves are 30-50 cm long by 1-5 cm wide. They are narrow and flat. The edge is slightly rough with a few long hairs near the base. The seed head is much branched. The flower is yellow. The fruit is a grain. There are several races.

HABITAT

It is a temperate plant. It requires a moderately fertile well-drained soil in full sunlight. Once established it can tolerate heat and drought. It suits warm temperate and subtropical climates. Plants are frost sensitive. In Nepal it grows up to 2200 m altitude. It can grow in arid places. It suits hardiness zones 5-9.

PRODUCTION

Cultivation

It is grown from seed which take one week to germinate.

Harvesting and Seed Production

Seeds for harvest can be produced in 10 weeks.

NOTES

It suits people with Coeliacs disease because it contains no gluten. It has a high alkaline content that makes it easily digested. There are about 500 *Panicum* species.

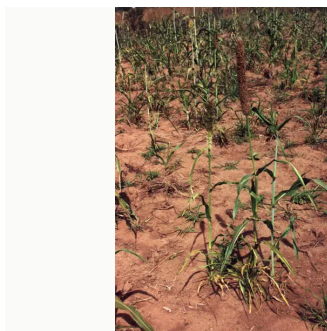
PICTURES



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

- Acharya, K. P., Paudel, P. K., 2020, Biodiversity in Karnali Province: Current Status and Conservation. Ministry of Industry, Tourism, Forest and Environment, Karnali Province Government, Surkhet, Nepal. p 31
- Ambasta, S.P. (Ed.), 2000, The Useful Plants of India. CSIR India. p 426
- Bernholt, H. et al, 2009, Plant species richness and diversity in urban and peri-urban gardens of Niamey, Niger. *Agroforestry Systems* 77:159-179
- Brickell, C. (Ed.), 1999, The Royal Horticultural Society A-Z Encyclopedia of Garden Plants. Convent Garden Books. p 746
- 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 1685
- Cobley, L.S. (rev. Steele, W.M.) 2nd Ed., 1976, An Introduction to the Botany of Tropical Crops. Longmans. p 55
- Cundall, P., (ed.), 2004, Gardening Australia: flora: the gardener's bible. ABC Books. p 979
- Curtis, W.M., & Morris, D.I., 1994, The Student's Flora of Tasmania. Part 4B St David's Park Publishing, Tasmania, p 333
- Ertug, F, Yenen Bitkiler. Resimli Türkiye Florası -I- Flora of Turkey - Ethnobotany supplement
- Esperanca, M. J., 1988. Surviving in the wild. A glance at the wild plants and their uses. Vol. 2. p 164
- Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 178
- FAO, 1988, Traditional Food Plants, FAO Food and Nutrition Paper 42. FAO Rome p 378
- Flora of Pakistan. www.eFloras.org
- Gangte, H. E., et al, 2013, Wild Edible Plants used by the Zou Tribe in Manipur, India. *International Journal of Scientific and Research Publications*, Volume 3, Issue 5
- Gangwar, A. K. & Ramakrishnan, P. S., 1990, Ethnobotanical Notes on Some Tribes of Arunachal Pradesh, Northeastern India. *Economic Botany*, Vol. 44, No. 1 pp. 94-105
- Gautam, R. S., et al, 2020, Wild Edible Fruits of Nepal. *Int. J. Appl. Sci. Biotechnol.* Vol 8(3): 289-304
- Gautam, R. S., et al, 2022, Ethnobotanical Review of Wild Edible Plants of Nepal. *Journal of Natural History Museum* Volume 32, 2021-22 p 126
- Guite, C., 2016, Study of wild edible plants associated with the Paite Tribe of Manipur, India. *International Journal of Current Research*. Vol. 8, Issue 11, pp. 40927-40932
- Hardwick, G., 2001, Economically Useful Plants for Northern Australia: Master Species List. Crusader eBooks.

- Haq, N., Anthony, K., Sarwar, M., and Ahmad, Z. (eds.), 1998, Underutilized Crops of Pakistan. Plant Genetic Resources Institute. p 16
- Heywood, V.H., Brummitt, R.K., Culham, A., and Seberg, O., 2007, Flowering Plant Families of the World. Royal Botanical Gardens, Kew. p 394
<http://www.botanic-gardens-ljubljana.com/en/plants>
- Hussey, B.M.J., Keighery, G.J., Cousens, R.D., Dodd, J., Lloyd, S.G., 1997, Western Weeds. A guide to the weeds of Western Australia. Plant Protection Society of Western Australia. p 60
- Hu, Shiu-ying, 2005, Food Plants of China. The Chinese University Press. p 293
- Huxley, A. (Ed.), 1977, The Encyclopedia of the Plant Kingdom. Chartwell Books. p 184
- Jardin, C., 1970, List of Foods Used In Africa, FAO Nutrition Information Document Series No 2.p 5
- Jia, X., et al, 2022, Ethnobotany of wild edible plants in multiethnic areas of the Gansu-Ningxia-Inner Mongolia junction zone. Journal of Ethnobiology and Ethnomedicine 18:53
- Kaume, R.N., 2006. *Panicum miliaceum* L. [Internet] Record from Protabase. Brink, M. & Belay, G. (Editors). PROTA (Plant Resources of Tropical Africa), Wageningen, Netherlands. <
<http://database.prota.org/search.htm>>. Accessed 20 October 2009.
- Khanal, R., et al, 2014, Documenting abundance and use of underutilized plant species in the mid hill region of Nepal. ECOPRINT 21: 63-71, 2014
- Kiple, K.F. & Ornelas, K.C., (eds), 2000, The Cambridge World History of Food. CUP p 118
- Kuo, W. H. J., (Ed.) Taiwan's Ethnobotanical Database (1900-2000), <http://tk.agron.ntu.edu.tw/ethnobot/DB1.htm>
- Lazarides, M. & Hince, B., 1993, Handbook of Economic Plants of Australia, CSIRO. p 180
- Lele, Y., et al, 2021, Wild Edible Plants of Nutritional and Medicinal Significance to the Tribes of Palghar, Maharashtra, India. Journal of Ecological Society. p 18
- Macmillan, H.F. (Revised Barlow, H.S., et al), 1991, Tropical Planting and Gardening. Sixth edition. Malayan Nature Society. Kuala Lumpur. p 353
- Mal, B., S., et al, (Eds), 2010, Minor Millets in South Asia. Bioversity.
- Malezas Comestibles del Cono Sur, INTA, 2009, Buenos Aires
- Manandhar, N.P., 2002, Plants and People of Nepal. Timber Press. Portland, Oregon. p 346
- Menninger, E.A., 1977, Edible Nuts of the World. Horticultural Books. Florida p 149
- Murtem, G. & Chaudhrey, P., 2016, An ethnobotanical note on wild edible plants of Upper Eastern Himalaya, India. Brazilian Journal of Biological Sciences, 2016, v. 3, no. 5, p. 63-81
- Paczkowska, G. & Chapman, A.R., 2000, The Western Australian Flora. A Descriptive Catalogue. Western Australian Herbarium. p 111
- Plants for a Future, The Field, Penpol, Lostwithiel, Cornwall, PL22 0NG, UK.
<http://www.scs.leeds.ac.uk/pfaf/>

Full reference list (24 more) at <https://www.echocommunity.org/en/resources/207ac516-d38c-4da3-9cb3-4e3aa37c4c1a>

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/207ac516-d38c-4da3-9cb3-4e3aa37c4c1a>