



PLANT FACT SHEET

Crotalaria juncea L.

GENUS *Crotalaria* FAMILY Fabaceae

COMMON NAMES Sunhemp

EDIBLE PARTS AND USES

Edible parts: Leaves, Flowers, Pods, Seeds

The leaves have been recorded as being eaten.

The flowers are pickled. They are also cooked with meat and fish.

DESCRIPTION

An evergreen shrub. It grows to 2.5 m high and spreads to 2 m across. The stem is erect, with silky hairs on the branches. The plant has a strong taproot. The roots have root nodules which have branches and lobes, and are 25 mm across. The leaves are narrow, simple and spirally arranged. The leaves can be 12 cm long and with short leaf stalks. The flowers are bright yellow and pea shaped. They occur in clusters of up to 20 blooms. The fruit is a short, inflated, light yellow pod. It is about 3 cm long and 1 cm wide. It is covered with soft hairs, has a groove on the upper surface and a beak at the end. The mature seeds are loose in the pod. They are dark grey, broad and flattened and hooked.

HABITAT

A tropical plant. It prefers light to medium well drained soils. It needs an open sunny position. It is drought resistant but frost tender. In Nepal it grows to about 1300 m altitude. In Sichuan and Yunnan.

PRODUCTION

Cultivation

Plants can be grown from seed. Seed need treatment to break the hard seed coat before planting. Plants can also be grown from cuttings.

NOTES

There are about 550 *Crotalaria* species. They are mostly tropical. The plant is grown for its fibres. Chemical composition (g/100g of seed powder): Moisture = 10.2. Ash = 4.0. Ether extractives = 3.9. Nitrogen-free extract = 59.6. Protein (crude) (N x 6.25) = 30.1. Fibre (crude) = 8.7. Calcium (mg/100 g) = 20. Phosphorus (mg/100 g) = 371.0. Iron (mg/100g) = 28.9. Nacin (mg/100g) = 2.95. Ascorbic acid (mg/100 g) = 1.39. Total soluble carbohydrates and total reducing substances (27 deg. (+/-3 deg. C): total water soluble carbohydrates = 14.9. Total benzoic acid soluble carbohydrates = 18.1. Total 5% TCA soluble carbohydrates = 26.7. Total reducing

substances = 0.13. (100o C): total water soluble carbohydrates = 17.2. Total benzoic acid soluble carbohydrates = 23.8. Total 5% TCA soluble carbohydrates = 31.5. Total reducing substances = - . A new amino acid - strongly nihydrin positive - has also been found in the seeds.

PICTURES



Credit: Food Plants International (Bruce French)

REFERENCES

- Ambasta, S.P. (Ed.), 2000, The Useful Plants of India. CSIR India. p 146
- Bodkin, F., 1991, Encyclopedia Botanica. Cornstalk publishing, p 301
- 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 695
- Cengel, D. J. & Dany, C., (Eds), 2016, Integrating Forest Biodiversity Resource Management and Sustainable Community Livelihood Development in the Preah Vihear Protected Forest. International Tropical Timber Organization p 123
- Cobley, L.S. (rev. Steele, W.M.) 2nd Ed., 1976, An Introduction to the Botany of Tropical Crops. Longmans. p 276
- Devi, O. S., et al, 2021, Wild edible plants associated with the people of Thoubal Khunou village and its migrated villagers. Int. J. Adv. Res. Biol. Sci. 8(9): 72-90
- Dey, A. & Mukherjee, A., 2015, Living and Survival Amidst Hunger: Wild Edible Botanicals as a Prime Forest Productivity in the Rural Purulia District, West Bengal, India from Colonial to Present. Research Journal of Forestry 9(3): 71-86
- Elliot, W.R., & Jones, D.L., 1984, Encyclopedia of Australian Plants suitable for cultivation. Vol 3. Lothian. p 113
- Fowler, D. G., 2007, Zambian Plants: Their Vernacular Names and Uses. Kew. p 36
- Golait, S. D., et al, 2021, Documentation of Wild Edible Leafy Vegetable Traditionally Used by Tribal and Rural Communities of North Maharashtra, India. Plantae Scientia : Volume 04, Issue 03, May 2021
- 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 149
- Kar, A., et al, 2013, Wild Edible Plant Resources used by the Mizos of Mizoram, India. Kathmandu University Journal of Science, Engineering and Technology. Vol. 9, No. 1, July, 2013, 106-126
- Kauthale, V. et al., 2017, Diversity of Wild Edible Plants in Dhadgaon Block of Nandurbar District in Maharashtra, India. Int. J. Curr. Res. Biosci. Plant Biol. 4(6), 62-73
- Khodram, S. D., et al, 2019, Local knowledge of edible flowers used in Mizoram. Indian Journal of Traditional Knowledge Vol 18(40 pp 715-723
- Kiran, K. C., et al, 2019, Diversity and Seasonal Availability of Potential Wild Edible Plants from Vidarbha Region of Maharashtra State, India. Int.J.Curr.Microbiol.App.Sci (2019) 8(2): 1434-1446
- Lazarides, M. & Hince, B., 1993, Handbook of Economic Plants of Australia, CSIRO. p 68
- 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 34
- Mallick, S. N., et al, 2020, Ethnobotanical study of wild edible food plants used by the tribals and rural populations of Odisha, India. Plant Archives Vol. 20, No. 1, 2020 pp. 661-669
- Manandhar, N.P., 2002, Plants and People of Nepal. Timber Press. Portland, Oregon. p 176
- Martin, F.W. & Ruberte, R.M., 1979, Edible Leaves of the Tropics. Antillian College Press, Mayaguez, Puerto Rico. p 198
- Paczkowska, G. & Chapman, A.R., 2000, The Western Australian Flora. A Descriptive Catalogue. Western Australian Herbarium. p 421
- Pham-Hoang Ho, 1999, An Illustrated Flora of Vietnam. Nha Xuat Ban Tre. p 987
- Phon, P., 2000, Plants used in Cambodia. © Pauline Dy Phon, Phnom Penh, Cambodia. p 179

- Plants of Haiti Smithsonian Institute <http://botany.si.edu/antilles/WestIndies>
- Prashanth Kumar, G.M. and Shiddamallayya, N., 2015, Ethnobotanical Study of Less Known Wild Edible Plants of Hakki Pikki Tribes of Angadihalli, Hassan District, Karnataka. Journal of Medicinal Plants Studies 3(5):80-85
- Purseglove, J.W., 1968, Tropical Crops Dicotyledons, Longmans. p 250
- RADHA PANT et al (1969),
- RADHA PANT et al (1974),
- RADHA PANT & FALES,
- RADHA PANT et al (1981-82),
- Ray, A., et al, 2020, How many Wild Edible Plants do we Use. Frontiers in Sustainable Food Systems. 4:56 p 12
- Singh, P.K., Singh, N.I., and Singh, L.J., 1988, Ethnobotanical Studies on Wild Edible Plants in the Markets of Manipur - 2. J. Econ. Tax. Bot. Vol. 12 No. 1 pp 113-119
- Smith, P.M., 1979, Sunn hemp, in Simmonds, N.W., (ed), Crop Plant Evolution. Longmans. London. p 311
- Sp. pl. 2:714. 1753
- Staples, G.W. and Herbst, D.R., 2005, A tropical Garden Flora. Bishop Museum Press, Honolulu, Hawaii. p 330
- Sujanapal, P., & Sankaran, K. V., 2016, Common Plants of Maldives. FAO & Kerala FRI, p 99
- Swaziland's Flora Database <http://www.sntc.org.sz/flora>
- Terra, G.J.A., 1973, Tropical Vegetables. Communication 54e Royal Tropical Institute, Amsterdam, p 41
- Verdcourt, B., 1979, Manual of New Guinea Legumes. Botany Bulletin No 11, Division of Botany, Lae, Papua New Guinea. p 579
- WATT,
- Wheeler, J.R.(ed.), 1992, Flora of the Kimberley Region. CALM, Western Australian Herbarium, p 384
- Williamson, J., 2005, Useful Plants of Malawi. 3rd. Edition. Mdadzi Book Trust. p 83
- World Checklist of Useful Plant Species 2020. Royal Botanic Gardens, Kew
- Zeven, A. C. & de West, J. M. J., 1982, Dictionary of cultivated plants and their regions of diversity. Wageningen. p 76

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