

SPOTLIGHT ON SPECIES: *NANNORRHOPS RITCHIEANA*

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Nannorrhops ritchieana H. Wendl

Family : Palmae (Monocot)

Nannorrhops ritchieana (Mazri) is a gregarious, tufted, low growing palm with robust prostrate branching stems or rhizomes, occasionally with an erect branching stem reaching 6 meter high (Parker, 1921). It is xerophytic in nature, light demander and native of very dry climate. It has light crown, leaf blade 0.6096-0.9144 m long and broad. It flowers and fruits from June to November respectively. Its natural range extends to Pakistan, Afghanistan and Iran (Bailly, 1935 and Malik, 1984). In Pakistan, it is widely distributed in Makran, Kharan, Khuzdar, Hernai and Sibi area of Balochistan, Kohat,

Hungu, Orakzai, Waziristan and Kurram Agencies of N.W.F.P., and Jacobabad of Sindh (Watt, 1891; Troup, 1921; Parker, 1921; Blattar, 1926; and Stewart, 1972).

ENVIRONMENTAL REQUIREMENTS

Mazri is a species of mediterranean zone where only winter rainfall occurs and summer monsoon showers occur occasionally and grows on sandy, rocky, limestone and gypsum containing soil. For its better growth, good drainage conditions are required. Absolute maximum and minimum temperature varies from 21-43°C and 6-9°C respectively. Mazri growing areas receive 54 mm as mean annual rainfall (Anon, 1961).

SEED SOURCE AND VIABILITY

Good seed producing natural stands are available in South and North Waziristan Agencies. Seeds can be collected in the month of November. Literature on seed viability is silent. However, some relevant information obtained through personal communication revealed that seed remains viable for about 3-4 years if stored properly. Otherwise, it loses viability after one year (Nazir, 1991).

MODE OF PROPAGATION/ ESTABLISHMENT

Mazri can be propagated both through rhizome and seed (Parker, 1921). Seeds are pre-soaked in hot water (temperature 50°C) for about 24 hours so as to soften the seed coat (Khattak, 1962). For raising nursery, treated seeds can be sown directly about 5 cm deep in the polythene tube containing a mixture of sand, silt and humus in 1:1:1 ratio during the month of January/February. Germination commences after 2-3 weeks (Troup, 1921). At nursery stage, it requires shade and pricking/shifting to avoid rhizome penetration into the soil. One year old plants can be planted in the field and planting should be done in trenches at 3 x 0.3 x 0.3 m or 1.5 x 0.3 x 0.3 m spacing and cultural operations like watering, weeding and hoeing should be carried out at initial stages.

HARVESTING

Harvesting of Mazri leaves is controlled under Kohat Mazri Control Act, 1953 (Anon, 1963). Harvesting is only allowed from 15th November to 15th March and it is strictly prohibited during the rest of the period as it is growing period. During harvesting, it is also prohibited to remove the young leading shoot if it happens, the plant will not produce leaves and new shoots will develop from rhizome. There has been

over-exploitation of the crop in the past and as a result the species became totally extinct (in the Kala Chitta and Salt Range areas of Punjab) (Sheikh, 1987).

PRODUCTION

The production of mazri leaves exhibits wide fluctuations from year to year. The total extraction of mazri leaves for the last 10 years (1979-80 -1988-89) in the various parts of the country was 2,92,524 tonnes from 24,000 ha (Amjad and Nadir, 1990).

ECONOMIC IMPORTANCE

Mazri leaves are used for various products to meet the local requirements. The handicrafts made from mazri in cottage industries includes matting, handfans, shoes, basket, hats, pouches, rope, ban (cordage), brushes and decorative items used in daily life (Watt, 1891 and Parker, 1926). It is a cheap source of pulp and paper (Daugy and Yasin, 1968). Leaves have medicinal value and are used for the treatment of diarrhoea and dysentery and also used as purgative in veterinary practices (Watt, 1891). The seeds are pierced and made into rosaries and exported to Mecca. Dried trunk and leaves supplement the fuelwood. Cottage industries based on mazri leaves provide job opportunities to large number of rural people.

REFERENCES

- Amjad, M. and Nadir Khan. (1990). The state of forestry in Pakistan, 1989. Forest Economics Branch, Pakistan Forest Institute, Peshawar.
- Anon. (1961). District Census Report: Kohat. Ministry of Home & Kashmir Affairs, Govt. of Pakistan.



1. Mazri nursery at Hangu



2. Mazri plant at Hangu



3. Mazri products



4. Mazri products

Anon. (1963). West Pakistan Forest Manual, Vol.I Kohat Mazri Control Act. 1953, Act. No. III of 1954 (Appendix XI) pp. 432-437.

Baily, L.H. (1935). The Standard Cyclopedia of Horticulture. Vol.II. The Macmillan Company London, pp. 2105.

Blatter, E. (1926) The palms of British, India and Ceylon, Oxford University Press, London.

Daugy, L and M. Yasin. (1968). Preliminary pulping studies on Eucalyptus tree (*E. camaldulensis*) and Mazri leaves (*Nannorrhops ritchieana*). Pakistan J.For. Vol. 18(4): 455-461.

Khattak, G.M. (1962). Seed germination of Dwarf Palm (*Nannorrhops ritchieana*) Pakistan J.For. Vol. 12 (3): 202-204.

Malik, K.A. (1984). Flora of Pakistan; *Palmae*, No. 153 Department of Botany University of Karachi, Karachi.

Nazir Y.M. (1991). Personal communication on nursery techniques of *Nannorrhops ritchieana*.

Parker, R.N. (1921). Forest Flora of the Punjab with Hazara and Delhi, Printed by the Superintendent, Govt. Printing Press, Punjab, Lahore.

Sheikh, M.I. (1987). Utilization of Forest Products in small scale rural enterprises in Pakistan. FAO, RAPA, Publication 1987/3.

Stewart, R.R. (1972). Flora of West Pakistan: An annotated catalogue of Vascular plants of West Pakistan and Kashmir; Fakhari printing Press, Karachi.

Troup, R.S. (1921). the Silviculture of Indian Trees Vol.III Oxford: the Clarendon Press.

Watt, G. (1891). A dictionary of Economic Products of India. Vol. V. (*Linum* to *Oyster*): W.M. Allen & Co. London