

VALERIANACEAE

Nardostachys grandiflora DC. [= *Nardostachys jatamansi* (D. Don) DC. p.p.]

Common English names: Indian Nard, Spike Nard.

Vernacular names : Beng.: Jatamansi; Garh.: Masi; Guj.: Jatamasi, Kalichhad; Hindi: Bal-chir, Jatamansi; Kan., Mal. & Tel.: Jatamamshi; Kash.: Bhutiġatt, Kukilipot; Mar.: Jatamanshi; Nep.: Haswa, Jatamangsi, Naswa; Sans.: Jatamansi.

Trade name : Spike Nard, Jatamansi, Balchad and Balehand.

Distribution : INDIA: Himalayas (Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh); AFGHANISTAN; CHINA; TIBET; NEPAL; BHUTAN and MYANMAR.



Habitat : Found clinging to steep rocky cliffs and grassy slopes at altitudes between 3000 and 4000 m. It also grows on moss-laden rocks and moist boulders.

Population status/Cause for RET : Endangered. Over exploitation for the medicinal nature of rhizomes and habitat destruction for various reasons have resulted in its steady depletion.

Description : Perennials, erect rhizomatous herbs, 10-60 cm high. Rootstock stout, long, covered with fibres from the petioles of withered leaves. Stems pubescent upwards, glabrous below. Radical leaves spatulate, 5-20 × 2.5 cm, glabrous or slightly pubescent; cauline leaves sub-ovate, 1-2 pairs, 2.5-7.5 cm long, sessile. Flower heads 1 - 5; flowers rosy pale pink or

blue; bracts 4-6 mm long, pubescent; corolla tube ca 6 mm long, hairy inside. Fruits obovoid, ca 4 mm long, flattened.

Fl. & Fr.: July - October.

Medicinal properties and other uses : The rhizomes are used as a drug and in perfumery. They are collected from wild and about 18,650 kg of the rhizomes are brought in to markets in Punjab annually. Oil obtained from the roots is used as a hair tonic and also imparts black colour to the hair and in many medicinal preparations. It has antiarrhythmic activity with possible therapeutical usefulness in cases of auricular flutter; it is less effective than quinidine but is also less toxic. The oil exerts a hypotensive effect and it has a distinct depressant action on central nervous system in moderate doses; lethal doses cause deep narcosis and ultimately death within a few hours. A tincture is given in colic and flatulence. The rhizome is antiseptic, antispasmodic, appetiser, aromatic, carminative, emmenagogue, diuretic, stomachic, laxative, tonic, expectorant and vermifuge. It is used to treat high blood pressure, cold and cough, colic, diabetes, diarrhoea, digestive and respiratory disorders, dysmenorrhoea, epilepsy, erysipelas, flatulence, headache, hysteria, convulsions, leprosy and palpitation of heart. Essential oil is also used in aromatherapy.

Commercial / Ex-Im data : The current market price of the rhizome of this plant is Rs. 90 to 160 per kg. Bulk crude drugs (rhizomes) of this plant are available in Indian markets, which are mostly imported from Nepal. Some quantities are also procured from Kumaon region of Uttarakhand and Sikkim. The crude drug markets located in Gangtok, Siliguri, Kolkata, Mumbai and Delhi handle bulk supplies. Estimated consumption by the domestic herbal manufacturing units, for the year 2005-2006, has been assessed at 286 MT (dry wt.).

Cases of offences have been detected for violating CITES and EXIM Policy against:

- M/s Seama International, New Delhi on 03.10.2000 for attempting to export 2 kg of Jatamansi oil to Australia;
- Dr. Santosh Vergis on 25.01.2001 for attempting to export 650 kg ayurvedic medicines containing *N. grandiflora* along with few other plants to Switzerland;
- M/s China General Merchants, Mumbai on 05.03.2001 for attempting to export 20 kg of Jatamansi (*N. grandiflora*) to Yemen;

- M/s Spaks Exports, Jodhpur on 12.06. 2001 for attempting to export 20 kg of *N. grandiflora* to Czech Republic.
- Vedanta Gayatri Trust, Hardwar on 31.07.2001 for attempting to export 300 gm of herbal powder containing Jatamansi (*N. grandiflora*) to New York, USA.

Adulterants : The roots and rhizomes of *Cymbopogon densiflorus* (Steud.) Stapf [= *Cymbopogon schoenanthus* (L.) Spreng.] and *Selinum vaginatum* C.B. Clarke are often found as adulterants of valerian.

Legal : Listed in Appendix II of CITES. Included in Negative List of Exports.

References :

Jain, S.K. & A.R.K. Sastry (1980). Threatened Plants of India. A State-of-the Art Report. P. 27.

Jain, S.K. & A.R.K. Sastry (1984). The Indian Plant Red Data Book - 1, p. 157.

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Nayar, M.P. & A.R.K. Sastry (1988). Red Data Book of Indian Plants. Vol. 2, pp. 245-246.

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