

## GENTIANACEAE

**Gentiana kurroo** Royle [= *Pneumonanthe kurroo* (Royle) D. Don]

Vernacular names: Hindi – Kuru, Kutki; Sanskrit - Trayamana; Tamil - Kampantirai; Urdu - Neel kanthi (Pashanbheda).

Trade name: Indian Gentian root



**Gentiana kurroo** Royle

**Distribution:** INDIA: Jammu & Kashmir, Himachal Pradesh and Uttarakhand; occurs in North Western Himalayas between altitudinal ranges of 1500 and 3500 m; PAKISTAN AND NEPAL.

**Habitat:** Found in sub-alpine, alpine pastures, shady places, moist grassy slopes and rocky slopes in Oak, *Quercus* and *Rhododendron* forests.

**Population status / Cause for RET:** Critically endangered. Threats are forest fires and over exploitation for medicinal properties.

**Description:** A small perennial herb with tufted decumbent stems, 10 – 13 cm high. Rootstock stout and thick. Leaves radical rosulate, narrowly oblong-lanceolate or elliptic-lanceolate, spathulate, subacute-acute, coriaceous, purplish on dorsal surface, 3 – 13.5 x 0.3 – 1.5 cm; nerves 1 – 3, midrib prominent on dorsal side, base connate into 5 – 9 mm long tubes; margins revolute, crenulate. Flowers blue with white spots, terminal, solitary-subsolitary, often 3-clustered, pedicellate, 5-merous, 2.4 – 5.5 x 1 – 3.2 cm, pedicels 5-lineolate, 0.8 – 3 cm long. Seeds numerous.

**Fl. & Fr.:** August - November.

**Parts used commercially:** Rhizomes, used in Ayurveda, Tibetan and Unani medicine.

**Medicinal properties and uses:** Rhizome is considered as anthelmintic, blood purifier, carminative, diaphoretic, digestive, emmenagogue, febrifuge, stomachic and tonic. It is used as an ingredient of many tonic and stomachic preparations. It is used for improving appetite, stimulating gastric secretion and in the treatment of digestive disorders. It is administered in fever and urinary complaints. It is a well-known remedy for fattening the horses. The drug is given to dissolve the stones in stomach and used in diabetes, stomach-ache, renal troubles and several other diseases.

**Substitutes and adulterants:** *Picrorhiza kurrooa* Royle ex Benth. found in Himalayan region possesses similar properties like that of *Gentiana kurroo*. Further, the vernacular name *Kutki* is applied to both *G. kurroo* and *P. kurrooa*. Taking due advantage of the trade name *kutki*, the rhizome of *P. kurrooa* is being adulterated with or substituted for those of *G. kurroo*. Further, the rhizomes/roots of other species of *Gentiana* are also used as a substitute and adulterants of the drug *G. kurroo*.

**Cultivation practices:** It can be propagated through seeds, stem cuttings or by root divisions. It requires a cool temperate climate and well-drained soil. It requires sunshine and plenty of water when growing. In India, it is not being cultivated anywhere on a large scale. It can be best cultivated in outer Himalaya in Jammu.

**Commercial / Ex-Im data:** Rhizomes traded in local, regional, national and global markets. The current market price is Rs. 150 to 165 per kg.

**Legal:** Included in Negative List of Exports.

**References:** Selvam, A.B.D. (2012). Pharmacognosy of Negative Listed Plants. Pp. 96-105.