

Clerodendrum serratum (Linn.) Moon

Syn. *Rotheaca serrata* (Linn.) Steane & Mabb.

Fam. Lamiaceae

Ayurvedic name	Bharangi
Unani name	Bharangi
Hindi name	Bharangi
English name	Blue-flowered Glory Tree,
Trade name	Bharangi
Parts used	Roots and Leaves



Clerodendrum serratum

Morphological Characteristics

It is a small shrub, 2-4 meter tall bearing opposite leaves and having woody rootstock. The plant has quadrangular, glabrous branches. Leaves are large and ovate or oblong, usually ternate whorled, coarsely and sharply serrate, glabrous and pale beneath with six pairs of lateral nerves.

Floral Characteristics

Flowers are large pinkish-white in colour and numerous appearing in May to August month. It has a stout deflexed compressed pedicel in lax, dichotomous, long terminal panicles. It has leafy bracts. Calyx is cup shaped 5 mm long. Corolla is pale to pinkish blue with tube about 6-7 mm long; the lower larger lip like lobe is sky blue in colour. Stamens are long, exerted, curved and bluish. The drupes are 1-4 lobed, bluish-black and glossy.

Distribution

The plant is distributed over scrub forests throughout the tropical and sub-tropical parts upto 1500 m particularly in Bengal, Orissa and peninsular India.

Climate and Soil

Light to medium, particularly in laterite or red loam soils. It grows all over tropical and sub-tropical regions.

Propagation Material

Stem cuttings of semi hard wood.



Agro-technique¹⁰

Nursery Technique

- Raising Propagules:** The stem cuttings are raised in polybags in the month of May and after establishing, the same may be transferred to the field.
- Propagule Rate and Pretreatment:** Stem cutting to be treated in IBA 400 ppm for early sprouting.

Planting in the Field

- Land Preparation and Fertilizer Application:** Ploughing and harrowing of field is done to bring the soil to fine tilth. Pits of 60X60X60 cm are prepared and organic manure (FYM) is mixed with NPK 75:75:75 gm per pit should be applied before transplanting the sprouted cuttings.
- Transplanting and Optimum Spacing:** The stem cuttings are raised in polybags and after establishing the same may be transferred in the field at 2.0X2.0 meter spacing during rainy season.
- Interculture and Maintenance Practices:** Weeding should be done as and when required.
- Irrigation Practices:** In winter irrigation has to be given at 30-40 days interval and during summers at 10- 20 days interval.
- Control:** 2-3 manual weedings per annum are required.
- Disease and Pest Control:** Formation of sooty larval and mealy bugs is observed and can be controlled through use of suitable pesticides.

Harvest Management

- Crop Maturity and Harvesting:** Flowering takes place in next summer season and root could be dug out in autumn viz. 18 months age or over.
- Post-harvest Management:** Shade drying of roots is desirable.
- Chemical Constituents:** Root-bark yields saponine, mannitol and stigmasterol.
- Yield and Cost of Cultivation:** 1.5-2.0 t/ha on dry basis. Rs. 12000-15000/- is the estimated cost of cultivation for one hectare.

Therapeutic Uses

Root is useful in asthma, cough and scrofulous affections. It is given in fever and is useful in sinusitis. Juice of leaves is used with ghee as an application to herpetic eruptions and pemphigus. Leaves are vermifuge and bitter tonic. The root is one of the five ingredients of Brahata panchamool and has a large demand. The plant is considered as antitoxic, antiseptic, astringent and styptic.

¹⁰ Agro-technique study carried out by (a) Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri, Maharashtra, (b) SKN College of Agriculture, Rajasthan Agriculture University, Jobner, Rajasthan.