

Eclipta alba (Linn.) Hassk

Syn. *E. prostrata* Linn.

Fam. Asteraceae

Ayurvedic name	Bhringaraja
Unani name	Bharangi
Hindi name	Bhangara, Bhringraj
English name	Trailing Eclipta Plant
Trade name	Bhangara
Parts used	Whole plant



Eclipta alba

Morphological Characteristics

It is an erect or prostrate, branched (occasionally rooting at nodes) annual herb upto 30-40 cm high. Stem is cylindrical or flat, rough due to appressed white hairs, nodes distinct and greenish occasionally brownish. Leaves are opposite, sessile to sub-sessile 2.0 to 6.2 cm long, 1.5-1.9 cm wide, oblong, lanceolate, sub-entire, acute to sub-acute and strigose with appressed hairs on both surfaces.

Floral Characteristics

Flowers are white, solitary or two on unequal axillary peduncles involucre bracts are about 8 in number, ovate, obtuse or acute and strigose with appressed hairs. Disc flowers are tubular. Corolla is often 4 toothed. Stamens are 5, filament epipetalous, free, anther united into a tube with base obtuse. Pistil is bicarpellary. Ovary is inferior and unilocular with one basal ovule. Fruit is achenial cypsela, one seeded, cuneate, with a narrow wing and brown in colour.

Distribution

The plant is distributed throughout India, ascending upto 2000 meter in moist places.

Climate and Soil

The plant is found to grow wild in a variety of soils viz. sandy to clay soil and vary common on



damp wastelands, low waterlogged areas, roadsides, paddy and other crop fields, preferably in warm climate.

Propagation Material

Seed and stem cuttings.

Agro-technique¹²

Nursery Technique

- **Raising Propagules:** Propagules could be raised both from seed as well as stem cuttings. Seed is preferred for raising plantation. Seed germination is 75-85% when freshly collected mature seeds are sown in a well prepared nursery. The best time is February–March or rainy season. Seedling can be transplanted in April–May or August under the climatic conditions of North Eastern India, where rainfall is well distributed. Any delay in transplanting results in poor vegetative growth that can lower yield of biomass significantly.
- **Propagule Rate and Pretreatment:** 450-500 gm seeds or 25,000 propagules plus 10% for gap filling are required for one hectare. No pre-treatment of seed is necessary.



Flower of *Eclipta alba*

Planting in the Field

- **Land Preparation and Fertilizer Application:** The soil should be ploughed and cross ploughed to a fine tilth. The field should be well prepared and made weed-free before transplanting. NPK @ of 30:40:20 kg/ha and FYM @ 15 t/ha should be applied as basal dose during land preparation.
- **Transplanting and Optimum Spacing:** Best time of transplanting of propagules is April–May in the climatic condition in North Eastern India. However, it can be planted in August, where nursery is established in rainy seasons. The optimum spacing is 20X20 cm.
- **Intercropping System:** It is a mono-crop.
- **Intercultural and Maintenance Practices:** *Eclipta alba* is 3 months crop. 1st intercultural operation with 20 kg nitrogen after 20-30 days of transplanting, while 2nd intercultural operation with 10 kg nitrogen @ 50 days after transplanting may be adopted for optimum crop growth and yield of biomass.

¹² Agro-technique study carried out by North East Institute of Science Technology (NEIST) Jorhat, Branch Itanagar, Arunachal Pradesh.

