

# Bacopa monnieri (L.) Wettst.

**Synonyms :** *Bacopa micromonnieria* (Griseb.) B.L.Rob

*Moniera cuneifolia* Michx.

*Herpestis monniera* (L.) Kunth

**Family:** Scrophulariaceae

## Various Names

**Common/Trade name:** Brahmi

**Sanskrit names:** Aindri, Brahmi, Indravalli, Matsyaksi, Nirabrahmi

**Hindi names:** Baam, Barami, Brahmi, Jalbuti

**Popular names in the southern region**

- *Andaman & Nicobar Islands:* Baam, Bami, Jalbuti
- *Andhra Pradesh:* Sambarani chettu
- *Karnataka:* Brahmi, Jalabrahmi, Hiru brahmi, Neeru brahmi
- *Kerala:* Bami, Nirbrahmi
- *Lakshadweep:* Bami, Nirbrahmi
- *Puducherry:* Bami
- *Tamil Nadu:* Bami
- *Telangana:* Sambarani chettu



## Distribution

*Bacopa monnieri* is distributed in the tropics. In India, it is common in moist sites/ marshes ascending up to 1320 m altitude.

## Description

Perennial, aquatic or amphibious, prostrate, semi-succulent herbs with creeping stem and ascending branches. Leaves simple, opposite 1-1.5 × 0.4-0.6 cm, ovate-oblong or spatulate, rounded at apex, sessile. Flowers bluish-white, about 1 cm long, solitary, axillary. Fruit is a capsule 3-4 × 1.5-2 mm, ovoid or oblong, enclosed in calyx; seeds many, c. 0.5 mm long, oblong, reticulate.

## Uses

Brahmi is used as a memory booster and in the treatment of cardiac, respiratory and neurological disorders such as insomnia, insanity, depression, psychosis, epilepsy, and stress. It has anti-inflammatory, analgesic, antipyretic, sedative, free radical scavenging and anti-lipid peroxidative activities..

## Agro-ecological requirements

Brahmi occurs in a variety of soil types with adequate moisture. Near-neutral, clayey loam to clayey soils are suited for best growth. The plant becomes dormant during winter months except when grown near water courses.

## Cultivation

**Planting-stock production:** Seeds are very minute and germination is poor. Freshly collected shoot cuttings of 5–10 cm length with internodes having rootlets are the best planting material for cultivation. Nursery soil is mixed with well-decomposed farmyard manure at the rate of 3 kg/m<sup>2</sup>. A 200 m<sup>2</sup> nursery i.e., 210 beds of 10 × 1 m, is sufficient for raising seedlings for planting in one hectare. Freshly collected shoot cuttings should be planted at a distance of 5 × 10 cm in the well-prepared nursery beds followed by light irrigation. The cuttings develop roots within a week of planting and are ready for transplanting in the field in about 35–40 days.

*Improved variety:* CIM-Jagarti (developed by CIMAP, Lucknow).

**Field planting:** Rooted cuttings from nursery are transplanted in the field at a spacing of 20 × 20 cm. Best time for direct planting or transplanting in the field is beginning of rainy season. Propagules take about one week for the establishment and fresh root development.

**Manuring/Fertilizer:** For optimum yields, well-decomposed farmyard manure, to be mixed with soil before planting.

**Irrigation:** The crop is preferably kept inundated with water, at 4–5 cm depth, throughout the growth period.

**Pest and diseases:** No serious pests and diseases are reported.

## Harvesting & Post-harvest processing

The crop can be harvested 75–90 days after planting. It should be harvested when plants attain a length of 20–30 cm. The whole plant should be collected by uprooting manually. The produce should be dried by spreading on clean surface under the sun for four to five days, followed by shade-drying for next 7–10 days. The dried material should be stored in clean containers. Long duration storage should be avoided.

## Yield

Approximately 5.5 tonnes per hectare on drying.

## Economics of cultivation

Cost of Cultivation: ₹40,000 per hectare

Market Price: *Dried whole plant*- ₹130-150/kg (as on January 2019)

## Quantitative quality standards (acceptable limits) (w/v)

- *Foreign matter*: Nil
- *Ash*: Not more than 16.0 %
- *Acid-insoluble ash*: Not more than 2.5 %
- *Ethanol-soluble extractive*: Not less than 17.0 %
- *Water-soluble extractive*: Not less than 18.0 %

**Note:** The farmers are advised to adopt suitable practices so as to meet the quality parameters and standards of the buyers.