

Chlorophytum arundinaceum Baker

Fam. Liliaceae

Ayurvedic name	Musli Bhed
Unani name	Musli Safed, Biskandri
Hindi name	Safed Musli
English name	India Spider Plant
Trade name	Safed Musli
Parts used	Tuberous Root



Chlorophytum arundinaceum

Morphological Characteristics

It is a perennial herb with a short hard root stocks; roots often thick, fleshy and cylindrical. The leaves are 15-35 cm long and oblanceolate. The plant is considered endangered species in the country.

Floral Characteristics

Inflorescence is dense; flowers are arranged in raceme and shortly branched. Flowers white, anthers as long as or longer than the filaments and yellow in colour. Bracts are usually long and over topping the shortly pedicelled buds. Cells of the orbicular capsule are 3-4 seeded and black coloured.

Distribution

Plant is distributed sparsely over Eastern India, mainly Bengal, Sikkim, Bihar, Assam and few places in Orissa and Meghalaya.



Cluster of underground tuberous root

Dried root pieces



Climate and Soil

A tropical and subtropical climate with humid atmosphere is suitable for its growth. Temperature 20°C-25°C, rainfall 150-200 cm and relative humidity around 70% is suitable for its better performances. Sandy-loam and organic matter rich in clay loam soil is suitable for the plant.

Propagation Material

Seed and root tubers.

Agro-technique⁸

Nursery Technique

- **Raising Propagules:** Root stocks @ 7-10 quintals are required per hectare. Germination of untreated seeds is about 9-12%. Seed treatment with concentrated sulphuric acid for half an hour, followed by treatment of Gibberellic acid (GA) 100 ppm enhances germination upto 38%.
- **Propagule Rate and Pretreatment:** 45000-50000 seedlings per hectare as a mono crop; whereas 30000-40000 seedlings are required for plantation with *Cajanus cajan* (Pigeonpea) as a shade plant.

Planting in the Field

- **Land Preparation and Fertilizer Application:** Land should be ploughed, harrowed 2-3 times to make it to good tilth. FYM @ 20 t/ha may be applied during land preparation. NPK @ 90:30:30 kg/ha is recommended; of this, N is split in 3 doses. The first split of 30 kg N with entire quantity of P and K may be applied at the time of land preparation and rest of Nitrogen be applied after 3 and 6 months of planting.
- **Transplanting and Optimum Spacing:** Seeds may be sown in line during March in raised beds 10 cm apart. Frequent watering is necessary. By May-June seedlings are ready for transplantation. Shade must be provided in the plantation. 60X30 cm is recommended optimum spacing.
- **Intercropping System:** *Cajanus cajan* is found as a good intercrop providing shade to the growing plants.
- **Interculture and Maintenance Practices:** Hand weeding and hoeing at 4 months interval in first year; thereafter, twice in a year will keep the fields free from weeds.
- **Irrigation Practices:** Largely rain fed irrigated in dry season only or as required.
- **Weed Control:** Weed control is required at 45 days after planting and thereafter at 4 months interval. Pre-emergence application of Simazine 2.0 kg/ha or Pendimethaline @ 1.0 kg/ha is followed by hand weeding.

⁸ Agro-technique study carried out by North East Institute of Science Technology (NEIST) Jorhat – 785006, Assam.

