

Plectranthus hadiensis var. tomentosus (Benth. ex E. Mey.) Codd

Synonyms: *Plectranthus tomentosus* Benth. ex E. Mey.

Coleus zeylanicus (Benth.) L.H. Cramer

Family: Lamiaceae

Various names

Common/Trade name: Hribera

Sanskrit name: Valakah

Hindi names: Hariveera, Valaka

Popular names in the southern region

- *Andaman & Nicobar Islands:* Not recorded
- *Andhra Pradesh:* Mayura sikha
- *Karnataka:* Dodda patre
- *Kerala:* Iruveli
- *Lakshadweep:* Iruveli
- *Puducherry:* Vettiya
- *Tamil Nadu:* Vettiya
- *Telangana:* Mayura sikha



Distribution

Plectranthus hadiensis var. *tomentosus*, probably introduced from Sri Lanka, is often cultivated in South India.

Description

Annual herbs; stem erect, reaching to 1.20 m high, rooting at lower nodes, branches, obtusely 4-angular, villous-hirsute, often pale pink in the upper parts. Leaves simple, opposite, 2.5-12.5 × 2.2-12.5 cm, broadly ovate to suborbicular, rounded to truncate at base, obtuse or rounded. Flowers white with slight purple shades in terminal, 12-40 cm long lax panicles.

Uses

Hribera is used against ailments such as vomiting, diarrhoea, leucoderma, fever and chronic liver diseases. It is also used against indigestion and urinal disorders and is a chief ingredient of ayurvedic preparations such as Devashtagandha and Snana choornam.

Agro-ecological requirements

It grows well in red sandy loam soil. Sandy and laterite soils are also suitable for its cultivation. Soils having pH 5.5 - 7 with low moisture content is ideal for profuse growth of the plant. The plant grows well in hot, humid climate and tropical and subtropical situation under irrigation. It can be cultivated as an intercrop in coconut gardens and rubber plantations in the initial years by making ridges; and on mounds as pure crop in low land situation..

Cultivation

Planting stock production:

Seeds and stem cuttings are used for the raising seedlings. Seeds are collected during spring. Sufficient quantity of fresh seeds is sown in the raised nursery beds to obtain good germination. Seeds germinate within 15-20 days. The seedlings have to be maintained in the nursery for 6-8 weeks. Semi hardwood stem cuttings are used for vegetative propagation. Cuttings root quickly and easily



even in water. Cuttings 10-12 cm long with 3-4 pairs of leaves are taken from the tip portion of rapidly growing shoots. Plant the cuttings in well-prepared nursery beds under shade during summer. Ensure regular watering. Cuttings produce sufficient roots in a month time. The rooted cuttings can be planted in the field during the rainy seasons (July-August) at a spacing of 20 × 20 cm. Approximately 84,000 stem cuttings are required for planting in one hectare of land when planted as pure crop.

Improved variety: CF36.

Manuring/ fertilization: Organic manure in the form of compost or farmyard manure at the rate of 10 tonnes per hectare should be applied. The entire amount of farmyard manure can be applied either at the time of land preparation or can be given in two equal splits.

Weeding: The field should be kept weed free by weeding and hoeing at regular intervals. Two or three weeding's are necessary. Weeding can be combined with the incorporation of organic manure.

Irrigation: Irrigation is necessary every third day in the initial stage of planting. Subsequent irrigation may be given depending on soil moisture conditions. But in summer, the crop should be irrigated regularly.

Pests/Diseases: Nematode infestation can be managed by crop rotation with Sorghum and Maize and planting of marigold along the sides of irrigation channels. Apply 200 kg per hectare

of neem cake before planting. *Trichoderma viridi* 5 kg per hectare is mixed with well rotted farmyard manure and applied twice at 20 days interval to control root rot. Bacterial wilt can be managed by drenching the soil with 300ppm Streptocycline and also apply *Pseudomonas fluorescence* 5 kg per hectare by mixing it with well rotted farmyard manure.

Harvesting & Post-harvest processing

Dried stem is the medicinally important part of the plant. The crop becomes ready for harvest 6-8 months after planting, flower emergence being the correct state of harvest. November-December months are ideal for harvesting. The crop is harvested by cutting at the base and is then dried in sun.

Yield

Approximately 2.5 tonnes of dried stem can be harvested from one hectare area. To obtain 1 kg of dry material 5.19 kg of fresh material is required.

Economics of cultivation

Cost of cultivation: ₹ 75,000 per hectare

Market Price: Dried stem ₹ 110 - 160/ kg (as on August 2018).

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

Aerial parts

- *Foreign material*: Nil
- *Total ash*: 13.6 to 15.9 %
- *Acid-insoluble ash*: 0.9 - 1 %
- *Ethanol-soluble extractive*: 14.4-15.1 %
- *Water-soluble extractive*: 11.1-14.9%
- *Loss on drying*: 19 %

Roots

- *Foreign material*: Nil
- *Total ash*: 13.2 - 13.6 %
- *Acid-insoluble ash*: 6.8 - 6.9%
- *Ethanol-soluble extractive*: 6.8-6.9 %
- *Water-soluble extractive*: 0.2-0.3%
- *Loss on drying*: 19 %

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