

# *Justicia adhatoda* L.

**Synonyms** : *A. zeylanica* Medicus, *Adhatoda vasica* Nees

**Family** : Acanthaceae

**Group** : Anti tussive (expectorant)

**Parts Used** : Root , Leaf, Bark, Flower

## **Vernacular Names**

English : Malabar nut

Malayalam : Adalodakam

Hindi : Arusha

Sanskrit : Vasaka



**Distribution and habitat:** In lower Himalayan ranges.

**Botany:** A dense shrub 1.2-2.4 m high with many long opposite ascending branches.

• **Stem:** Yellowish bark, terete, glabrous.

• **Leaves:** 12.5-20 cm length and 3.8-6.3 cm width, elliptic -lanceolate, acuminate, minutely puberulous when young, glabrous when mature, dark green above, paler beneath, base tapering. petioles 1.3-2.5 cm long.

• **Flowers:** Short dense axillary pedunculate spikes 2.5-7.5 cm long, towards the ends of the branches. Calyx rather less than 1.3 cm long, glabrous or slightly pubescent, divided to within 2 mm of the base. corolla white, with a few irregular rose coloured bars in the throat, 3.2 cm long, pubescent outside; upper lip 2 by 1.3 cm long, ovate-oblong, curved, notched; lower lip as long as the upper, the lobes 1.3 cm deep, rounded, the middle lobe the broadest. Filaments hairy at the base, lower anther cells minutely apiculate at the base.

• **Capsules** 0.8 cm, pubescent. Seeds 6 mm by 5 mm, orbicular- oblong, glabrous.

## **Chemical constituents:**

• Root-besides vasicine, vasicinone, and vasicinol, vasicoline, adhatodine and anisotine

• Leaves- Pyrrolo (2, 1b) quinazoline alkaloids, 1- vasicine, 1-vasicinone, vasicol, anisotine, 3-hydroxy-anisotine and vasnetine

**Uses:** Expectorant, diuretic

• Whole plant used for blood impurities, heart troubles, loss of memory, diseases of mouth.

• Root is used for bronchitis, asthma, sore eyes, fevers, gonorrhea.

• Leaves used in treatment of diarrhea, dysentery, rheumatism.

• Flowers are used for ophthalmic treatments

**Formulations:** Vasavaleha, Vasarishta, Punarnavasava, Bhagottara churna.

## **Agro technology:**

**Soil:** The plant tolerates a variety of soils and can be grown in different climatic conditions varying from arid to damp moist localities.

**Propagation:** By seeds and vegetative propagation

**Harvesting:** 2 years after planting.

