

SURVEY & COLLECTION OF MEDICINAL PLANTS

HOMOEOPATHIC MEDICINAL PLANT PROFILE: *Verbascum thapsus* Linn.

Verbascum thapsus Linn. Sp.Pl. 177.1753; Hook.f., Flora of British India, 4:250.1884; Blackwood, A Manual of Materia Medica 597. 1906; Bourne, E.T., Tabulae inedita, et. 94, 1913; Fyson, Flora of South Indian Hill Stations, 425. t. 364. 1932; Matthew, Records of the Botanical Survey of India, 20:170.1969; Matthew, Supplement to Illustrations of Flora of Palni Hills, t. 1076. 1998; Suresh Baburaj, D., A Checklist of Homoeopathic Medicinal Plants of India, 33. 1996; Chopra et al. Glossary of Indian Medicinal Plants, 253. 1980 (Repr. Ed.); Allen, Encyclopedia of Pure Materia Medica 10:14.1982 (Repr. Ed.); Clarke, A Dictionary of Practical Materia Medica 3:1526. 1982 (Repr. Ed.); Boericke, Pocket Manual of Materia Medica 671. 1984 (Repr. Ed.); Matthew, The Flora of the Palni Hills, South India 2:901. 1999.

English: Aaron's Rod. Adam's Flannel. Beggar's Stalk. Beggar's Blanket. Blanket Herb. Bullock's Lungwort. Candlewick Plant. Cuddy's Lungs. Cow's Lungwort. Clown's Lungwort. Common Mullein. Duffle. Dock. Feltwort. Fluffweed. Golden Rod. Jacob's Staff. Jupiter's Staff. Old Man's Flannel. Our Lady's Flannel. Hare's Beard. Hag's Taper. Peter's Staff. Shepherd's Staff. Shepherd's Clubs. Velvet Dock. Woollen Plant. Wild Ice Leaf. **Hindi:** Gidar Tamaku. Ban Tamaku. Phulla. **Kannada:** Kaduhogesooppinegida.

Other Homoeopathic References: Allen TF, Encyclopedia Pure Materia Medica; Allen TF, Primer of Materia Medica; Boericke, Pocket Manual of Materia Medica; Blackwood, Materia Medica; Boenninghausen's Characteristics & Repertory., Choudhury, Study of Materia Medica; Clarke, Dictionary of Materia Medica; Douglas, Pearls of Homoeopathy; Gentry, Rubrical and Regional Homoeopathic Materia Medica; Hahnemann, Materia Medica Pura. Hamilton, Flora Homoeopathica. Hering, Guiding Symptoms; Lippe, Keynotes; Murphy, Lotus Materia Medica; Nash, Expanded Works; Phatak, Materia Medica.

Morphological Description: Erect, stout, usually biennial herb upto 1.5 m, densely covered with soft, yellowish woolly, stellate tomentum. Stem unbranched, robust, winged, with decurrent leaf bases. Leaves coriaceous, basal ones obovate - lanceolate, upto 32 x 8 cms, petiolate; cauline leaves oblong, to 16 x 4 cms, sessile, decurrent along the stem. Flowers yellow 1.5 - 2 cms across, sessile, along a simple, terminal, densely woolly spike 12 - 25 cms long; bracts lanceolate, exceeding the flowers. Calyx deeply 5 lobed, lobes lanceolate acute, imbricate, tomentose outside. Corolla rotate, yellow, 1.5 - 2 cms across, woolly outside; tube very short, lobes 5, subequal, broad, obtuse, spreading. Stamens 5, filaments subequal, the three shorter (upper) ones covered with white hairs, the two longer ones glabrous, anthers transverse. Ovary globose, 2 celled, with numerous ovules on axile placentae; style dilated upwards, stigma capitate. Fruit an ovoid, tomentose, septical capsule; seeds numerous, minute.



Habit: Rosetted leaf stage.

Flowering & Fruiting: Throughout the year.

Distribution: Indigenous in Europe and Asia up to the Caucasus, also found in North America; in India in the temperate Western Himalayas from Kashmir to Bhutan at 1,700 - 3,700 m and occurs in Western Ghats, and Nilgiris, in hills above 1,700 m.

General: In temperate countries, *Verbascum thapsus* shows an acaulescent habit in the first year with a round roset of rosette leaves, attaining lengths of 40 cms. In the following year, a stout, solitary, pale stem

erect, with tough strong fibres enclosing a thin rod of white pith arises from the midst of the felted, rosetted leaves. Its rigid uprightness accounts for some of the local names such as 'Aaron's

Rod', 'Jupiter's staff' or 'Jacob's staff', etc. The stem has a number of decurrent leaves each successively growing smaller as it occurs ascending up the stem.

The hairs which occur on the leaves also are found on every part of the stem, the calyces on the exterior of the corollas. The hairs are uniseriate, comprised of single cells of two to four lengths placed end to end with two or more branches arising from each node in two or three tiers. Each branch is also unicellular and gives an appearance of a candelabrum. The hairs are intensely irritating to the mucous membranes, especially of the mouth and are hence avoided by grazing animals. While preparing decoctions or tea, the final liquid should be strained with a fine muslin cloth



Habit: A fully grown plant.

Many insects visit the sulphur yellow flowers from honey bees, bumble bees and also flies. Pollination is by insects though failing these flowers gets self pollinated. The three short hairy stamens have only short, one celled anthers - the two longer, smooth ones have larger anthers. The pollen sacs have an orange red inner surface, disclosed as the anthers open.

The stigma matures before the anthers in each flower and the style projects at the moment the flowers open and any insect alighting on it after visiting a previous flower where anthesis has occurred, gets brushed with pollen which it carries to the present and it needs to strike the stigma to get at the nectaries, thus ensuring cross pollination. However if no insect visits, the flowers get self pollinated.

The ripened seed capsule is very hard and contains many seeds, which eventually escape through two valves.

General uses: The down on the leaves and stem makes excellent tinder when quite dry, readily igniting on the slightest spark and was, before the introduction of cotton used as lamp wicks, hence another of the old names, 'Candlewick Plant'.

An old superstition existed that witches used lamps and candles provided with wicks of this sort and hence the name "Hag's Taper" though the Anglo-Saxon word Haege or Hage means a 'hedge' and so the name could be a mispronounced "Hedge Taper", and may imply that the tall spikes



A plant showing multiple spikes in flowering condition

and Asia, the plant had the power to drive away evil spirits and like St. John's Wort (*Hypericum perforatum*) Mullein was a sure safeguard against evil spirits and magic.

The name "Mullein" derived from 'Moleyn' in Anglo-Saxon and 'Malen' in Old French derived from the Latin *malandrium* i.e. the malanders or leprosy, could also be applied to diseases of cattle, to lung diseases among the rest and the plant used as a remedy, acquired the name of "Mullein" and "Bullock's Lung Wort".

The name "Clown's Lung Wort" refers to its use as a home remedy. 'Ag-Leaf' and 'Ag-Paper' are other names for it. "Wild Ice Leaf" refers to the white look of the leaves.



Flowers in spike.

Linnaeus named the plant *Verbascum* from the Latin *barbascum* (*barba*=beard) alluding to the shaggy foliage.

While *Verbascum thapsus* is the 'Greater Mullein', the 'lesser' or 'petty' Mulleins are the Cowslip (*Caltha palustris/Primula veris*) and Primrose (*Primula obconica*).

Cultivation: The plant can be cultivated in gardens for the columnar effect when massed in the borders and also for the predominating grey green foliage. It can also be kept in pots as one year growths especially in decorative arrangements. The plant easily hybridizes with other species and can be propagated from cuttings or divisions though it can easily be raised from seeds.

Seeds are generally broad cast in well tilled plots which are watered initially and with a basal fertilizer of FYM. The seeds germinate readily and attain good growth in 2 - 3 months. The plants prefer well drained to dry soil conditions, surviving in the wild in open, sunny and dry habitats. They attain heights of 1.5 m or more in the first year itself in south India, as the absence of snow fall stimulates the plant to produce the inflorescence in the first year itself.

Constituents: The leaves contain rotenone and coumarin. The rotenone content is small and varies with the season and location. The roots and flowers are devoid of rotenone. The infusion of leaves is toxic to fish.



The petroleum ether extract of seeds yield 11.6% fat. The fatty acids are stearic, palmitic, oleic and linoleic acids. The unsaponifiable matter contains beta sitosterol.

The roots are febrifugal. A number of oligosaccharides hectose, octose, nonose and verbasose have been identified. Aucubin and catalpol are reported from the roots.

The leaves are much valued for their demulcent properties and are used in pectoral complaints, a decoction is used as local application for piles, sunburns, and inflammation of mucous membranes.

The dried leaves are smoked to relieve irritation of the upper respiratory tract, asthma and spasmodic coughs. They are placed in hot water and the steam is inhaled for curing nasal congestion and irritation of the throat. A decoction of the leaves is employed as a cardiac stimulant and a syrup made from them is used as a household remedy against coughs. The leaves contain several saponins, but in small quantities.

The leaves have been used to adulterate leaves of *Digitalis purpurea* and *Lobelia* sp. But they can be easily detected even in small quantities by the candelabrum shaped trichomes and velvety appearance.

The roots is used in north India as a febrifuge and its decoction administered for cramps and migraine. The seeds are narcotic and are employed to stupefy and kill fish. They are also credited with aphrodisiac properties.

The essential oil obtained from the plant has bactericidal properties and has been used for diseases of the ear. In Europe it is used as a popular remedy for frost bites, bruises and piles. The flowers contain crocetin. A conserve of the flowers is prescribed for treatment of ringworm.

Homoeopathic uses:

Clinical: Anus, itching of. Colic. Constipation. Cough. Deafness. Enuresis. Haemorrhoids. Neuralgia. Prosopalgia. Urine, incontinence of.

Hahnemann proved *Verbascum thapsus*. Other provers were Gross, Hartmann, Langhammer and Mossdorf.

Part used: The whole plant is used for preparing mother tincture. The flowers alone are kept in a sealed bottle exposed to the sun, or steeped in olive oil for two or more weeks and the oil used for treating ear ailments.

While *Verbascum thapsus* is the plant used in most of the *Materiae Medicae*, Allen, Timothy F. (*Encyclopedia of Pure Material Medica* 10:115, 1984 Repr. ed.) quotes Butler that *Verbascum nigrum* and *Verbascum blattaria*, are used. These species do not occur in South India.

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