Mullein(Verbascum densiflorum)

Common Names: Orange mullein, large-flowered mullein.

Location: This herb is found in Ethiopia and along the Mediterranean Sea.

Description: The flowers and leaves of this herb are used medicinally.

Properties: Mullein has many uses for ailments such as congestion, respiratory problems and healing

wounds.

Uses: Mullein can be used to treat bloodshot eyes, diarrhea, ear infection, cuts and scrapes,

hemorrhoids, influenza, sore throat and bronchitis.

Doses: This herb can be found as an oil or tea.

Warnings: If you have cancer or are pregnant or nursing do not ingest mullein. Never consume the seeds

of this herb; they are poisonous.

# **Mullein Leaf and Flower Profile**

### Also known as

Verbascum densiflorum, felon herb, common wormwood, Great mullein, Common, Witch's Taper, Velvet Dock, Candlestick, Jupiter's Staff, Felt Wort.and Flannel Mullein.

### Introduction

Mullein is towering biennial plant with a single stalk up to 6-1/2 feet (2 meters) bearing whorls of leaves and topped with a spike of 5-part yellow flowers. The flowers coat the mouth with a honey-like scent and a sweet taste. The name mullein itself is derived from the Latin word "mollis" which means soft. It has its origins in the Mediterranean, but has been naturalized in North America. The flowering stem was dried by the Greeks and Romans and dipped in tallow, and then used as a lamp wick or as a torch. These torches were said to ward off evil spirits and witches, although it was certainly not uncommon in a witches herbal garden. Frazier writes in the Golden Bough that mullein was added to the bonfire on Midsummer's eve to ward away evil from the celebration. Some ancient magical grimoires have been found to list powdered mullein leaf as a substitute for graveyard dust when that was unavailable.

## **Constituents**

Mucilage, flavonoids, Iridoids, sterols, and sugars.

## **Parts Used**

Dried flower as an oil, and dried leaf as a tea.

# **Typical Preparations**

Traditionally used as a tea, and is frequently combined with other herbs in mixtures for treating cough. May be taken as an extract if fresh material is used, and is very rarely found in capsule form. The fresh or dried flowers have traditionally been used to make an oil infusion for external use.

# **Summary**

The soothing mucilages of mullein coat sore throats and make coughing more productive. The German E Commission relates that mullein is good for catarrhs of the respiratory tract and as an expectorant.

## **Precautions**

None.

Botanical: Verbascum thapsus (LINN.) Family: N.O. Scrophulariaceae

- Description
- History
- Parts Used
- Constituents
- Medicinal Action and Uses
- Preparation and Dosage
- ---Synonyms---White Mullein. Torches. Mullein Dock. Our Lady's Flannel. Velvet Dock. Blanket Herb. Velvet Plant. Woollen. Rag Paper. Candlewick Plant. Wild Ice Leaf. Clown's Lungwort. Bullock's Lungwort. Aaron's Rod. Jupiter's Staff. Jacob's Staff. Peter's Staff. Shepherd's Staff. Shepherd's Clubs. Beggar's Stalk. Golden Rod. Adam's Flannel. Beggar's Blanket. Clot. Cuddy's Lungs. Duffle. Feltwort. Fluffweed. Hare's Beard. Old Man's Flannel. Hag's Taper.
- ---Parts Used---Leaves, flowers, root.
- ---Habitat---Verbascum thapsus (Linn.), the Great Mullein, is a widely distributed plant, being found all over Europe and in temperate Asia as far as the Himalayas, and in North America is exceedingly abundant as a naturalized weed in the eastern States. It is met with throughout Britain (except in the extreme north of Scotland) and also in Ireland and the Channel Islands, on hedge-banks, by roadsides and on waste ground, more especially on gravel, sand or chalk. It flowers during July and August.

The natural order Scrophulariaceae is an important family of plants comprising 200 genera and about 2,500 species, occurring mostly in temperate and sub-tropical regions, many of them producing flowers of great beauty, on which account they are frequently cultivated among favourite garden and greenhouse flowers. Of this group are the Calceolaria, Mimulus, Penstemon, Antirrhinum and Collinsia. Among its British representatives it embraces members so diverse as the Foxglove and Speedwell, the Mullein and Figworts, the Toadflax and the semi-parasites, Eyebright, Bartsia, Cowwheat, and the Red and Yellow Rattles.

Most of the flowers are capable of selffertilization in default of insect visits.

Unlike the Labiatae, to which they are rather closely related, plants belonging to this order seldom contain much volatile oil, though resinous substances are common. The most important constituents are glucosides, and many of them are poisonous or powerfully active.

A number of the Scrophulariaceae are or have been valued for their curative properties and are widely employed both in domestic and in regular medicine.

The genus *Verbascum*, to which the Mullein belongs, contains 210 species, distributed in Europe, West and Central Asia and North Africa, six of which are natives of Great Britain. The Mulleins, like the Veronicas, are exceptions to the general character of the Scrophulariaceae, having nearly regular, open corollas, the segments being connected only towards the base, instead of having the more fantastic flowers of the Snapdragon and others. They are all tall, stout biennials, with large leaves and flowers in long, terminal spikes.

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---Description---In the first season of the plant's growth, there appears only a rosette of large leaves, 6 to 15 inches long, in form somewhat like those of the Foxglove, but thicker - whitish with a soft, dense mass of hairs on both sides, which make them very thick to the touch. In the following spring, a solitary, stout, pale stem, with tough, strong fibres enclosing a thin rod of white pith, arises from the midst of the felted leaves. Its rigid uprightness accounts for some of the plant's local names: 'Aaron's Rod,' 'Jupiter's' or 'Jacob's Staff,' etc.

The leaves near the base of the stem are large and numerous, 6 to 8 inches long and 2 to 2 1/2 inches broad, but become smaller as they ascend the stem, on which they are arranged not opposite to one another, but on alternate sides. They are broad and simple in form, the outline rather waved, stalkless, their bases being continued some distance down the stem, as in the Comfrey and a few other plants, the midrib from a quarter to half-way up the blade being actually joined to the stem. By these 'decurrent' leaves (as this hugging of the stem by the leaves is botanically termed) the Great Mullein is easily distinguished from other British species of Mullein - some with white and some with yellow flowers. The leaf system is so arranged that the smaller leaves above drop the rain upon the larger ones below, which direct the water to the roots. This is a necessary arrangement, since the Mullein grows mostly on dry soils. The stellately-branched hairs which cover the leaves so thickly act as a protective coat, checking too great a giving off of the plant's moisture, and also are a defensive weapon of the plant, for not only do they prevent the attacks of creeping insects, but they set up an intense irritation in the mucous membrane of any grazing animals that may attempt to browse upon them, so that the plants are usually left severely alone by them. The leaves are, however, subject to the attacks of a mould, Peronospora sordida. The hairs are not confined to the leaves alone, but are also on every part of the stem, on the calvees and on the outside of the corollas, so that the whole plant appears whitish or grey. The homely but valuable Mullein Tea, a remedy of the greatest antiquity for coughs and colds, must indeed always be strained through fine muslin to remove any hairs that may be floating in the hot water that has been poured over the flowers, or leaves, for otherwise they cause intolerable itching in the mouth.

Towards the top of the stalk, which grows frequently 4 or even 5 feet high, and in gardens has been known to attain a height of 7 or 8 feet, the much-diminished woolly leaves merge into the thick, densely crowded flower-spike, usually a foot long, the flowers opening here and there on the spike, not in regular progression from the base, as in the Foxglove. The flowers are stalkless, the sulphur-yellow corolla, a somewhat irregular cup, nearly an inch across, formed of five rounded petals, united at the base to form

a very short tube, being enclosed in a woolly calyx, deeply cut into five lobes. The five stamens stand on the corolla; three of them are shorter than the other two and have a large number of tiny white hairs on their filaments. These hairs are full of sap, and it has been suggested that they form additional bait to the insect visitors, supplementing the allurement of the nectar that lies round the base of the ovary. All kinds of insects are attracted by this plant, the Honey Bee, Humble Bee, some of the smaller wild bees and different species of flies, since the nectar and the staminal hairs are both so readily accessible, though the supply of nectar is not very great. The three short hairy stamens have only short, one-celled anthers - the two longer, smooth ones have larger anthers. The pollen sacs have an orangered inner surface, disclosed as the anthers open.

In some species, *Verbascum nigrum*, the Dark Mullein, and *V. blattaria*, the Moth Mullein, the filament hairs are purple. The rounded ovary is hairy and also the lower part of the style. The stigma is mature before the anthers and the style projects at the moment the flower opens, so that any insect approaching it from another blossom where it has got brushed by pollen, must needs strike it on alighting and thus insure crossfertilization, though, failing this, the flower is also able to fertilize itself. The ripened seed capsule is very hard and contains many seeds, which eventually escape through two valves and are scattered round the parent plant.

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---History---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 for lamp wicks, hence another of the old names: 'Candlewick Plant.' An old superstition existed that witches in their incantations used lamps and candles provided with wicks of this sort, and another of the plant's many names, 'Hag's Taper', refers to this, though the word 'hag' is said to be derived from the Anglo-Saxon word *Haege* or *Hage* (a hedge) - the name 'Hedge Taper' also exists - and may imply that the sturdy spikes of this tall hedge plant, studded with pale yellow blossoms, suggested a tall candle growing in the hedge, another of its countryside names being, indeed, 'Our Lady's Candle.' Lyte (*The Niewe Herball*, 1578) tells us 'that the whole toppe, with its pleasant yellow floures sheweth like to a wax candle or taper cunningly wrought.'

'Torches' is another name for the plant, and Parkinson tells us:

'Verbascum is called of the Latines Candela regia, and Candelaria, because the elder age used the stalks dipped in suet to burne, whether at funeralls or otherwise.'

And Gerard (1597) also remarks that it is 'a plant whereof is made a manner of lynke (link) if it be talowed.' Dr. Prior, in *The Popular Names of British Plants*, states that the word Mullein was Moleyn in AngloSaxon, and Malen in Old French, derived from the Latin *malandrium*, i.e. the malanders or leprosy, and says:

"The term "malandre" became also applied to diseases of cattle, to lung diseases among the rest, and the plant being used as a remedy, acquired its name of "Mullein" and "Bullock's Lungwort." '

Coles, in 1657, in *Adam in Eden*, says that:

'Husbandmen of Kent do give it their cattle against the cough of the lungs, and I, therefore, mention it because cattle are also in some sort to be provided for in their diseases.'

The name 'Clown's Lung Wort refers to its use as a homely remedy. 'Ag-Leaf' and 'Ag-Paper' are other names for it. 'Wild Ice Leaf' perhaps refers to the white look of the leaves. Few English plants have so many local names.

The Latin name Verbascum is considered to be a corruption of barbascum, from the Latin barba (a

beard), in allusion to the shaggy foliage, and was bestowed on the genus by Linnaeus.

Both in Europe and Asia the power of driving away evil spirits was ascribed to the Mullein. In India it has the reputation among the natives that the St. John's Wort once had here, being considered a sure safeguard against evil spirits and magic, and from the ancient classics we learn that it was this plant which Ulysses took to protect himself against the wiles of Circe.

The Cowslip and the Primrose are classed together by our old herbalists as Petty Mulleins, and are usually credited with much the same properties. Gerard recommends both the flowers and leaves of the primrose, boiled in wine, as a remedy for all diseases of the lungs and the juice of the root itself, snuffed up the nose, for megrim.

All the various species of Mullein found in Britain possess similar medicinal properties, but *V. thapsus*, the species of most common occurrence, is the one most employed.

For medicinal purposes it is generally collected from *wild* specimens, but is worthy of cultivation, not merely from its beauty as an ornamental plant, but also for its medicinal value, which is undoubted. In most parts of Ireland, besides growing wild, it is carefully cultivated in gardens, because of a steady demand for the plant by sufferers from pulmonary consumption.

Its cultivation is easy: being a hardy biennial, it only requires sowing in very ordinary soil and to be kept free from weeds. When growing in gardens, Mulleins will often be found to be infested with slugs, which can be caught wholesale by placing in borders slates and boards smeared with margarine on the underside. Examine in the morning and deposit the catch in a pail of lime and water.

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---Parts Used---The leaves and flowers are the parts used medicinally.

Fresh Mullein leaves are also used for the purpose of making a homoeopathic tincture.

---Constituents---The leaves are nearly odourless and of a mucilaginous and bitterish taste. They contain gum as their principal constituent, together with 1 to 2 per cent of resin, divisible into two parts, one soluble in ether, the other not; a readily soluble amaroid; a little tannin and a trace of volatile oil.

The flowers contain gum, resin, a yellow colouring principle, a green fatty matter (a sort of chlorophyll), a glucoside, an acrid, fatty matter; free acid and phosphoric acid; uncrystallizable sugar; some mineral salts, the bases of which are potassia and lime, and a small amount of yellowish volatile oil. They should yield not more than 6 per cent of ash. Their odour is peculiar and agreeable: their taste mucilaginous.

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---Medicinal Action and Uses---The Mullein has very markedly demulcent, emollient and astringent properties, which render it useful in pectoral complaints and bleeding of the lungs and bowels. The whole plant seems to possess slightly sedative and narcotic properties.

It is considered of much value in phthisis and other wasting diseases, palliating the cough and staying expectoration, consumptives appearing to benefit greatly by its use, being given in the form of an infusion, 1 OZ. of dried, or the corresponding quantity of fresh leaves being boiled for 10 minutes in a pint of milk, and when strained, given warm, thrice daily, with or without sugar. The taste of the decoction is bland, mucilaginous and cordial, and forms a pleasant emollient and nutritious medicine for allaying a cough, or removing the pain and irritation of haemorrhoids. A plain infusion of 1 OZ. to a pint of boiling water can also be employed, taken in wineglassful doses frequently.

The dried leaves are sometimes smoked in an ordinary tobacco pipe to relieve the irritation of the respiratory mucus membranes, and will completely control, it is said, the hacking cough of consumption. They can be employed with equal benefit when made into cigarettes, for asthma and spasmodic coughs in general.

Fomentations and poultices of the leaves have been found serviceable in haemorrhoidal complaints.

Mullein is said to be of much value in diarrhoea, from its combination of demulcent with astringent properties, by this combination strengthening the bowels at the same time. In diarrhcea the ordinary infusion is generally given, but when any bleeding of the bowels is present, the decoction prepared with milk is recommended.

On the Continent, a sweetened infusion of the *flowers* strained in order to separate the rough hairs, is considerably used as a domestic remedy in mild catarrhs, colic, etc.

A conserve of the flowers has also been employed on the Continent against ringworm, and a distilled water of the flowers was long reputed a cure for burns and erysipelas.

An oil produced by macerating Mullein flowers in olive oil in a corked bottle, during prolonged exposure to the sun, or by keeping near the fire for several days, is used as a local application in country districts in Germany for piles and other mucus membrane inflammation, and also for frost bites and bruises. Mullein oil is recommended for earache and discharge from the ear, and for any eczema of the external ear and its canal. Dr. Fernie (*Herbal Simples*) states that some of the most brilliant results have been obtained in suppurative inflammation of the inner ear by a single application of Mullein oil, and that in acute or chronic cases, two or three drops of this oil should be made to fall in the ear twice or thrice in the day.

Mullein oil is a valuable destroyer of disease germs. The fresh flowers, steeped for 21 days in olive oil, are said to make an admirable bactericide. Gerarde tells us that 'Figs do not putrifie at all that are wrapped in the leaves of Mullein.'

An alcoholic tincture is prepared by homoeopathic chemists, from the fresh herb with spirits of wine, which has proved beneficial for migraine or sick headache of long standing, with oppression of the ear. From 8 to 10 drops of the tincture are given as a dose, with cold water, repeated frequently.

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### ---Preparation and Dosage---Fluid extract, 1/2 to 1 drachm.

Formerly the flowers of several species of Mullein were officinal, but Mullein no longer has a place in the British Pharmacopoeia, though Verbascum Flowers were introduced into the 4th Edition of the United States National Formulary, as one of the ingredients in pectoral remedies, and the leaves, in fluid extract of Mullein leaves, made with diluted alcohol were directed to be used as a demulcent, the dose being 1 fluid drachm.

In more ancient times, much higher virtues were attributed to this plant. Culpepper gives us a list of most extraordinary cures performed by its agency, and Gerard remarks that:

'there be some who think that this herbe being but carryed about one, doth help the falling sickness, especially the leaves of the plant which have not yet borne flowers, and gathered when the sun is in Virgo and the moon in Aries, which thing notwithstanding is vaine and superstitious.'

A decoction of its roots was held to be an alleviation for toothache, and also good for cramps and convulsions, and an early morning draught of the distilled water of the flowers to be good for gout.

Mullein juice and powder made from the dried roots rubbed on rough warts was said to quickly remove them, though it was not recommended as equally efficacious for smooth warts. A poultice made of the seeds and leaves, boiled in hot wine, was also considered an excellent means to 'draw forth speedily thorns or splinters gotten into the flesh.' We also hear of the woolly leaves being worn in the stockings to promote circulation and keep the feet warm.

The flowers impart a yellow colour to boiling water and a rather permanent green colour with dilute sulphuric acid, the latter colour becoming brown upon the addition of alkalis. An infusion of the flowers was used by the Roman ladies to dye their hair a golden colour. Lyte tells us, 'the golden floures of Mulleyn stiped in lye, causeth the heare to war yellow, being washed therewithall,' and according to another old authority, Alexander Trallianus, the ashes of the plant made into a soap will restore hair which has become grey to its original colour.

The seeds are said to intoxicate fish when thrown into the water, and are used by poachers for that purpose, being slightly narcotic. According to Rosenthal (*Pharmaceutical Journal July*, 1902), the seeds of *V. sinuatum* (Linn.), which are used in Greece as a fish poison, contain 6 to 13 per cent of Saponin. Traces of the same substance were found in the seeds of *V. phlomoides* (Linn.) and *V. thapsiforme* (Schrad.), common in the south of Europe, which have been used for the same purpose. *V. pulverulentum* of Madeira (also used as a fish poisoner) and *V. phlomoides* are employed as taenicides (expellers of tapeworm).