

Jasminum Officinale Linn- Ayurvedic Aproach

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ABSTRACT

In Sanskrit Samhita Malati is described as flower of god. It is perennial climbing shrub with white flower. It is also cultivated at various parts of India. Analgesic (mild), antidepressant, anti-inflammatory, antiseptic, antispasmodic, aphrodisiac, carminative, cicatrisant, expectorant, galactagogue, parturient, sedative and a tonic for the uterus.

Key Words: *Jasminum, Malati*

INTRODUCTION:

Malati is one of the herb mentioned in all ancient scriptures of Ayurveda & has been used for medicinal purpose since centuries. In Sanskrit Samhita Malati is described as flower of god. It is perennial climbing shrub with white flower. It is also cultivated at various parts of India.



Figure: 1

Figure: 2

Taxonomical/ Scientific Classification:^[1]

- Kingdom:** Plantae- Plants
Subkingdom: Tracheobionts- Vascular plants
Division: Magnoliophyta- Flowering plants
Class: Magnoliopsida- Dicotyledons
Order: Scrophulariales
Family: Oleaceae- Olive family
Genus: Jasminum

Species: officinalelinn
Latin name: Jasminumofficinalelinn

Vernacular names^[2]

Sanskrit	- Juthika, Mugdhee, Suchinallika
Hindi	- Juhi, Chameli
Eng	- Spanish or common jasmine
Marathi	- Jai
Folk	- Chameli
Guj	- Chambeli
Bengali	- Umbustha, Gunica, Yothica
Tamil	- Manmadabanam
Telugu	- Adavimalla, Madhyanamallige
Oriya	- Bonomllika, Jui
Unani	- Yaasmin

Morphology^[3]

A. Macroscopic

Leaves opposite, imparipinnate, 5-12.5cm long, petiole and rhachis margined.

Leaflets 7-11, the terminal 2.5 – 3.8 by 1.3 – 1.8 cm, larger than the rest but not very markedly so, rhomboid-ovate or lanceolate, acute or acuminate; the lateral ovate, usually obtuse, mucronate, the intermediate sessile.

Flowers 3-3.8cm across, white, often tinged (or streaked) with pink outside, in lax, axillary and terminal cymes longer than the leaves; pedicels 1.3- 2.5 cm long; bracts, the lower often large, ovate to spatulate-oblong, foliaceous, the upper small, linear.

Calyx 5-10 mm. long, Glabrous, tube 2.5mm long or less; lobes 5, subulate2-8 times long as the tube.

Corolla - tube 1.8-2.5 cm long; lobes 5; elliptic or obovate. Flowers Very fragrant carpels 2.

B. Microscopic:

Rachis - Rachis shows more or less convex outline with two lateral wings; epidermis single layered covered by thick cuticle; hairs mostly unicellular with pointed apex, glandular rarely found only on the upper surface; collenchyma 2 - 5 layered; pericycle represented by slightly lignified small fibre groups; vascular bundles three, median crescent-shaped, small accessory bundle present in each wing.

Midrib - shows similar structure as rachis; 3 - 5 layers of collenchymatous cells towards lower surface; pericycle present in the form of non-lignified fiber groups; vascular bundle single and crescent-shaped.

Lamina - shows dorsiventral structure, epidermis single layered on either side, covered by a thick striated cuticle; hairs as in rachis; palisade 1- 2 layered; spongy parenchyma 4-6 layers; stomata anomocytic only in lower surface.

Powder - Yellowish-green; shows palisade and spongy parenchyma, unicellular hairs, fibers and vessels with spiral thickening, polygonal epidermal cells and anomocytic stomata in surface view.

Varieties

There are two varieties based on the flower color viz.

- Jati (with white flower) and
- Svarnajati (with yellow flower).

Distribution

The plant is cultivated throughout India for its fragrant flowers particularly in UP, Bihar & Bengal. In UP it is cultivated on a commercial scale in Gazipur, Jaunpur, Farrukhabad, Kanauj.

Propagation

It is propagated by cutting planted during November, January the flowers appear during the rainy season about the beginning of august. They are small & light (26,000 per kg) the average yield of flowers varies from 37 to 75 kg per acre.

Chemical composition-

Leaves –

2''-epifraxamoside, demethyl-2''-epifraxamoside, jasminanhydride, oleacein, 2-(3,4-dihydroxy phenyl)-ethanol, isoquercitrin, ursolic acid, resin, salicylic acid, jasminine, indoleoxygenase, 3,4-dihydroxy benzoic acid, 2-hydroxy-30, 40- dihydroxyacetophenone and oleanolic acid.

Flowers –

Cis-3-hexenol, 2-vinyl pyridine, indole, myrcene, linalool, geranyl linalool, α - terpineol, geraniol, linalyl acetate, nerolidol, phytol, isophytol, farnesol, eugenol, benzyl alcohol, p-cresol, methyl benzoate, benzyl cyanide, benzyl acetate, methyl dihydrojasmonate, methyl anthranilate, jasmone, methyl- N-methyl anthranilate, vanillin, cis-3-hexenyl benzoate, benzyl benzoate, methyl palmitate, methyl linoleate, jasgranoside, jaspolyoside, 8-epi-kingiside, 10- hydroxyl- oleuropein, 10-hydroxy ligstroside, oleoside-7,11-dimethyl ester, 3-O- α -L-rhamnopyranosyl (1 \rightarrow 2)- β -D-xylopyranosyl-hederagenin-28-O- β -D-galactopyranosyl (1 \rightarrow 6)- β - D-galactopyranosyl ester, hederagenin-3-O- β -D-glucopyranosyl (1 \rightarrow 3)- α -L-arabinopyranoside, 2- α ,3 β ,23-trihydroxyolean-12-en-28-oic –O- β -D-glucopyranosyl ester, hederagenin-3-O- β -Dxylopyranosyl (1 \rightarrow 3)- α -L-rhamnopyranosyl (1 \rightarrow 2)- α -L-arabinopyranoside, 2 α ,3 β ,23- trihydroxyolean-12-en-28-oic – O- α -L-rhamnopyranosyl (1 \rightarrow 4)- β -D-glucopyranosyl (1 \rightarrow 6)- β - D-glucopyranosyl ester, hederagenin-3-O- α -L-rhamnopyranosyl (1 \rightarrow 2)- α Larabinopyranoside, kaempferol-3-O- α -L-rhamnopyranosyl (1 \rightarrow 3)-[α -L-rhamnopyranosyl

(1→6)-β-D-galactopyranoside, kaempferol-3-O-rutinoside, 7-ketologanin, oleoside-11-methylester, 7-glucosyl-11-methyl oleoside, ligstroside and oleuropein.

Physical constituents-

Sl no.	Physical constant	% w/w
1.	Total ash	10.89
2.	Acid insoluble ash	1.29
3.	Water soluble ash	2.92
4.	Loss on drying	4.25
5.	Petroleum ether extractive value	2.61
6.	Chloroform extractive value	3.58
7.	Acetone extractive value	8.72
8.	Alcohol extractive value	11.57
9.	Water extractive value	12.14

Pharmacodynamics-^[4]

Rasa – Tikta, Kasaya
Virya – Ushna
Vipaka – Katu
Guna - Laghu, Snigdha, Mrudu
Dosakarma – Tridosahara
Rogagnata- Tridoshajavikara, Dantashoola, Dantadaurbalya, Mukharoga.
Karma- Mukharoganashaka, Saumanasyajanana, Medhya, Vajikarana.

Classical category-

Charak – Kushthaghna
Bhavprakash – Pushpvarga
KaiyadevNighantu – AaushadhiVarga
Shaligramnighatu – Pushpavarga
Raj nighantu – KarviradiVarga
Chakradaatta – Nadivaran Chikitsa

Action and Properties^{[5], [6]}

Karma-Vranaropan, VranaShodhan, Analgesic (mild), antidepressant, anti-inflammatory, antiseptic, antispasmodic, aphrodisiac, carminative, cicatrisant, expectorant, galactagogue, parturient, sedative and a tonic for the uterus.

Uses Described in Ayurveda

जातितगरमन्दारैर्दुः स्वप्नश्चविनश्यति । यो. र. पू. 56

It is duswapnanashak if we use it as Dantadhavana.

जातियुगतिक्तमूष्णतुवरंलघुदोषजित् ।

शिरोऽक्षिमुखदन्तार्तिविषकुष्ठानिलास्त्रजित् ॥ 28 भा.प्र. नि. पुष्पवर्ग

Leaves are chewed in aphthous, stomatitis, toothache, ulcer in the mouth and leaf juice or oil obtained from it is dropped in to the ear

मालतीतुवरातित्त कटूष्णादोषनाशिनी ।

शिरोक्षिमुखदन्तार्ति विषकुष्ठव्रणास्त्रजित् ॥1474॥ कै. नि.

चम्बेलीतुवरातित्त व्रणकुष्ठविषस्त्रजित् ।

शिरोऽक्षिमुखदन्तार्तिहरात्वग्दोषनाशिनी ॥ घ. नि

जातिपत्रसैस्तैलविपक्वंपूतिकर्णजित् । चक्रदत्त

Fresh juice of the leaves is a valuable application for sort corns between the toes, for ulceration in the mouth, throat and gums, the leaves fried in ghee are recommended to be applied.

Important formulations –

JatyadiTaila, JatyadiGhrita, VasantaKusumakara Rasa

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