

International Journal of Pharmacognosy and Pharmaceutical Sciences



ISSN Print: 2706-7009
ISSN Online: 2706-7017
IJPPS 2024; 6(1): 43-44
www.pharmacognosyjournal.net
Received: 10-01-2024
Accepted: 17-02-2024

Marva Ashraf
(Final Year) M Pharm
Student, Department of
Pharmacognosy, Nehru College
of Pharmacy, Pampady,
Thrissur, Kerala, India

Jasna TJ
Associate Professor,
Department of
Pharmacognosy, Nehru college
of Pharmacy, Pampady,
Thrissur, Kerala, India

Corresponding Author:
Marva Ashraf
(Final Year) M Pharm
Student, Department of
Pharmacognosy, Nehru College
of Pharmacy, Pampady,
Thrissur, Kerala, India

Review on Malabar jasmine-*Jasminum malabaricum* Wight. (Oleaceae)

Marva Ashraf and Jasna TJ

DOI: <https://dx.doi.org/10.33545/27067009.2024.v6.i1a.138>

Abstract

The flowering plant species *Jasminum malabaricum* belongs to the family Oleaceae and is indigenous to Sri Lanka and southern India. Commonly known as Malabar jasmine hence; it is found in Malabar areas of Kerala. This fragrant climber with white blooms is well-known for its anti-tumour and blood-purifying benefits in traditional medicine. The natural population of this species has decreased as a result of heavy exploitation. *Jasminum malabaricum* finds application in the cosmetic and detergent industries, as well as in the treatment of cataracts and as a blood purifier. It is well-known for its antibacterial, antioxidant, blood-purifying, and anticancer effects in traditional medicine. Additionally, crushed leaves of this plant are applied externally to wounds and used as a treatment for eye infections. This article aims to provide an updated review on ethnobotanical and phytopharmacological properties of *Jasminum malabaricum* and to stimulate new studies about this species.

Keywords: *Jasminum malabaricum*, Malabar jasmine, Oleaceae, traditional medicine

Introduction

Taxonomical Classification ^[19]

- **Kingdom:** Plantae.
- **Phylum:** Tracheophyta.
- **Class:** Magnoliopsida.
- **Order:** Lamiales.
- **Family:** Oleaceae.
- **Genus:** *Jasminum*.
- **Species:** *Malabaricum* Wight.

Synonym

Jasminum latifolium Grah. Non Roxb ^[15].

Common names ^[17, 19]

- **English:** Malabar jasmine, wild jasmine.
- **Malayalam:** kadambavalli, kaatumulla ^[16].
- **Tamil:** kotivakai.
- **Marathi:** kusar.
- **Kannada:** Kadu mallige.
- **Sanskrit:** Mudgara.

Plant description

Growing up to 3-5 meters tall, it is a huge climber. A woody stem's thickness is 4 cm. Slender branches trail and spread out. Bushes with a scandalous appearance. Simple membranous leaves with an opposite arrangement measure 8-10 x 6-7.2 cm. They are elliptical in shape, with an abruptly acuminate apex and a truncate or subcordate base. The base of the leaf can be spherical or heart-shaped, and its lateral nerves are slender, with 8-9 pairs of them. The petiole is 1 cm long and jointed above the base. A profusion of fragrant white flowers can be found in numerous flowered, lax, trichotomously branched terminal cymes. Up to 50 blooms can be found in a single cyme, with branched cymes at the

termination of branches and linear, subulate bracts measuring 6 to 8 mm in length and pedicels of the same. Lobes 5-7, subulate, pubescent, calyx 1.2 cm long. Petals are lance-shaped, 6-10 cm long, and spreading. White corolla with tube Lobes 6-10, sharp, lanceolate, or oblong, 2 cm long. Fruit ovoid, 1-1.2 x 0.8-1 cm, drying black, either alone or in pairs ^[18, 19].

Flowering and Fruiting

February - November ^[17].

Habitat

Grown in scrub jungles, deciduous woodlands, and semi-evergreen forests. It is utilized in worship and is often found planted close to temples ^[17, 19].

Distribution

Originating in southern India and Sri Lanka, it can be found in the Deccan, West Coast, Nilgiris, and Western Ghats of India. This one is extremely uncommon in India's northern regions ^[17, 19].

- **Andhra Pradesh:** Common on hills.
- **Kerala:** Districts like Kasargod, Kannur, Wayanad, Kozhikode, Palakkad.
- **Maharashtra:** All districts.
- **Odisha:** Common on hills.
- **Tamil Nadu:** Common on hills.

Medicinal use

In addition, *Jasminum malabaricum* has uses in the detergent and cosmetic sectors, as well as in the treatment of cataracts and as a blood purifier. It is well-known for its ethnomedical uses, which include blood purification, antioxidant, antibacterial, and anti-tumour effects ^[2, 18]. This species' natural population has decreased as a result of heavy exploitation. Because of these characteristics, callus culture research was done using Murashige and Skoog media with various BAP, NAA, and 2,4D combinations and concentrations. When utilized as explants for callus growth, the leaves and stem segments showed a marked response in the production of callus ^[6, 18].

References

1. Khare CP. Indian medicinal plants: an illustrated dictionary. Berlin: Springer; c2007. p. 343-344.
2. Dessai P, Sawant RP. *In-vitro* pharmacological activities of *Jasminum malabaricum* Wight. J Glob Trends Pharm Sci. 2019 Dec 18;9(2230-7346):5076-82.
3. Hurakadle P, Gadkar S, Hegde H. Antioxidant activity of *Jasminum malabaricum* - A medicinal plant from Western Ghats. Planta Med., 2011 Aug, 77(12).
4. Mann HH. Variation in the Flower of *Jasminum malabaricum*, Wight. J Linn Soc. London. 1920 Dec 1;45(302):155-158.
5. Sumangala H, Rao V, Shivashankara KS, Roy TK. High concrete and ester containing Jasmine species (*Jasminum malabaricum* Wight). Int. J Chem. Stud. 2018 Jan 1;6(2):3008-3013.
6. Hurakadle P, Gadkar S, Pai S. Callus culture studies on *Jasminum malabaricum* - An endemic medicinal plant. Planta Med., 2011 Aug, 77(12).
7. Ganguly S, Barua D. High herkogamy but low reciprocity characterizes isoplethic populations of *Jasminum malabaricum*, a species with stigma-height dimorphism. Plant Biol. 2020 Jun 13;22(5):899-909.
8. Srivastava K. Epidermal studies in some species of *Jasminum*. Proc. Indian Acad. Sci. 1975 Mar;81(3):111-117.
9. Kalaiyarasi A, Dhananjaya MV, Nair SA, Kumar R, Yogeesh HS, Munikrishnappa PM, et al. Studies on floral morphology and biology in *Jasminum* spp. Indian J Agric. Sci., 2019 Jun 19, 89(6).
10. Dubey P. Clinical study to evaluate the efficacy of vamana karma with mudgara (*Jasminum malabaricum* wight.) patra swarasa in psoriasis. World J Pharm Life Sci., 2005 Apr 8, 2021.
11. Gadkar SS, Pai SR, Pramod HJ, Hegde HV, Kholkute SD. Optimization of Callus Culture and Extraction Method for Elevated Production of Phenolic Antioxidants from *Jasminum malabaricum* Wight. Natl. Acad. Sci. Lett. 2015 Jun;38(3):225-259.
12. Jeyarani JN, Yohannan R, Vijayavalli D, Dwivedi MD, Pandey AK. Phylogenetic analysis and evolution of morphological characters in the genus *Jasminum* L. (Oleaceae) in India. J Genet. 2018 Nov 21;97(5):1225-39.
13. Pavithra S, Dm V, Nair S, Kumar R, Yh S, Mp M, et al. Studies on cross compatibility in *Jasminum* spp. Indian J Agric. Sci., 2019 Sep 11, 89(9).
14. Khude VS. Studies on phyto diversity of Mallikarjun hill adi: a sacred grove in Karnataka, India. Plant Arch. 2022 Nov 26;22(2):437-443.
15. Nitya SG, Sagari RR. Plants used in Animal Care-The Anthra Collective. Anthra; c2008. p. 489.
16. Pramod C, Palot MJ, Rajesh KP, Pradeep AK. An updated check list of flowering plants of Madayipara, Kannur district. Malabar Trogon. 2017 Jul 1;15(1 & 2):14-34.
17. Herbarium JCB. Flora-peninsula-indica.ces.iisc.ac.in. [cited 2024 Feb 26]. Available from: <http://flora-peninsula-indica.ces.iisc.ac.in/herbsheet.php?id=6443&cat=7>
18. Ajaytao; c2010. *Jasminum malabaricum* - Malabar Jasmine - Ajaytao. Ajaytao Botanical Photography. 2014 [cited 2024 Feb 26]. Available from: https://ajaytaobotanicalblog.wordpress.com/2014/05/09/Jasminum-malabaricum-malabar-jasmine-ajaytao/Jasminum_malabaricum_Wight_Species_India_Biodiversity_Portal. Available from: <https://indiabiodiversity.org/species/show/230102>