
**AN ETHNOMEDICINAL STUDY OF MORINGA OLEIFERA:
UNVEILING THE TRADITIONAL USES AND POTENTIAL HEALTH
BENEFITS OF A FORGOTT SPECIES**

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Article Received: 17 January 2026

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Article Revised: 07 February 2026

Scholar, SAM Global University, Raisen, Madhya Pradesh, India.

Published on: 26 February 2026

DOI: <https://doi-doi.org/101555/ijrpa.6150>

ABSTRACT:

Moringa oleifera, a plant species native to the tropical regions of Asia, has been employed in traditional medicine for centuries. Despite its extensive use, the ethnomedicinal aspects of this plant remain largely unexplored. This study aims to document the traditional uses, medicinal properties, and potential health benefits of *Moringa oleifera*, with a focus on its pharmacological and phytochemical aspects. A comprehensive review of existing literature, combined with field observations and interviews with traditional healers, reveals the plant's versatility in treating various ailments, including digestive disorders, skin conditions, and respiratory infections. The findings of this study highlight the significance of *Moringa oleifera* in traditional medicine and underscore the need for further research into its pharmacological and phytochemical properties.

INTRODUCTION:

Moringa oleifera, a member of the family Euphorbiaceae, is a tropical plant species found in the wild and cultivated in various parts of Asia. The plant has been used in traditional medicine for centuries, with its various parts, including leaves, stems, roots, and seeds, being employed to treat a range of health conditions. Despite its widespread use, the ethnomedicinal aspects of *Moringa oleifera* remain poorly documented, and its potential health benefits are yet to be fully explored.¹⁻⁵

METHODOLOGY:

This study employed a multi-disciplinary approach, combining a comprehensive review of existing literature with field observations and interviews with traditional healers. A thorough search of scientific databases, including PubMed, Scopus, and Google Scholar, was conducted to gather information on the plant's medicinal properties, phytochemical composition, and pharmacological activities. Field observations were made in rural areas where the plant is commonly used, and interviews were conducted with traditional healers to document the plant's traditional uses and preparation methods.

Traditional Uses: The traditional uses of *Moringa oleifera* are diverse and varied, reflecting the plant's versatility in treating various health conditions. The leaves, stems, and roots of the plant are used to treat digestive disorders, such as diarrhoea, dysentery, and constipation. The plant's seeds are used to treat skin conditions, including eczema, acne, and dermatitis. The plant's extracts are also used to treat respiratory infections, such as bronchitis, asthma, and coughs.⁶⁻¹⁰

Phytochemical Composition: Phytochemical analysis of *Moringa oleifera* has revealed the presence of various bioactive compounds, including alkaloids, glycosides, flavonoids, and phenolic acids. The plant's leaves and stems contain a range of alkaloids, including oleiferine, which has been shown to possess anti-inflammatory and antimicrobial properties. The plant's seeds contain glycosides, which have been found to exhibit antioxidant and anti-cancer activities.¹¹

Pharmacological Activities: The pharmacological activities of *Moringa oleifera* have been extensively studied, with the plant's extracts exhibiting a range of biological activities, including anti-inflammatory, antimicrobial, antioxidant, and anti-cancer properties. The plant's leaves and stems have been found to exhibit anti-inflammatory activity, with the inhibition of pro-inflammatory enzymes and the reduction of inflammation in animal models. The plant's seeds have been found to exhibit antimicrobial activity, with the inhibition of bacterial and fungal growth in vitro.¹²⁻¹⁶

The findings of this study highlight the significance of *Moringa oleifera* in traditional medicine, with the plant's various parts being used to treat a range of health conditions. The plant's phytochemical composition and pharmacological activities provide a scientific basis for its traditional uses, with the presence of bioactive compounds, such as alkaloids, glycosides, and phenolic acids, contributing to its medicinal properties¹⁷. The study's findings also underscore the need for further research into the plant's pharmacological and

phytochemical properties, with a view to developing new drugs and therapies from this traditional medicinal plant.¹⁸

Jaundice- Leaf extract (1 teaspoon) is taken along with honey (1 teaspoon) and coconut water (250 ml) 3 times daily for 15 days. Tuberculosis- Leaf (10-15gm) is boiled in water (125ml) for 5 minutes and filtered. The filtrate is mixed with a pinch of salt, Piper longum fruit powder and lemon juice and is taken 2 times daily for 3-4 months.¹⁹⁻²⁵

Infant's eye problem- Equal amount of fresh leaves extract and honey is mixed together and applied as eye drop. Eye pain- Leaf extract mixed honey is applied on eye as drop 3 times daily. Constipation- Tender leaves are cooked and taken daily. Bark Headache- Bark extract mixed with jaggery is sniffed.²⁶

Spleen enlargement- Bark decoction (100ml), root powder of *Plumbago zeylanica*, rock salt, and fruit powder of *Piper longum* (5gm each) are mixed and is taken twice daily. Bark decoction is taken along with bark ash of *Butea monosperma* and potash (5gm each) twice daily.²⁷

Gingivitis- Bark paste is applied on the affected gum. Oedema- equal amount of bark of the plant and bark of *Polyalthia longifolia* are crushed together and mixed with fermented cooked rice and applied over the affected part.²⁸

Eczema- Equal amount of bark and iron powder are crushed together and applied over the affected part.²⁹

Arthritis – Bark is crushed with cow's urine and the paste is applied on the affected part. Cleaning of throat (Laryngopharyngeal reflux)- Bark (100gm) and fruit of *Piper nigrum* (10gm) are crushed to powdered and one tenth of the powder is taken in a glass of water once daily in empty stomach. Children's spleen enlargement and kidney problem Bark decoction (5 ml) is mixed with rock salt and root powder of *Plumbago zeylanica* (250 mg) and is taken 2 times daily.³⁰

Ringworm- Bark crushed with radish (*Raphanus raphanistrum*) and is applied over the affected part. Hydrocoel- Equal amount of bark powder and seed powder of mustard crushed together and the paste is applied over the affected part. Erysipelas- Warm bark paste is applied over the affected part.³¹

Blister - Equal amount of bark of the plant, bark of *Ficus racemosa* and *Syzygiumcumini* are crushed together in water and applied over the affected part. Premature ejaculation- Bark powder (120gm) is boiled in 500 ml of water and filtered. The decoction (4 teaspoon) is taken 3 times daily.³²

Headache- Bark extract and jaggery are mixed together and inhaled 2-3 times daily.

Anthelmintic- Bark decoction along with fruit powder of Embeliaribes and the mixer (1 teaspoon) is taken once daily in empty stomach.³³

Gout- Bark of the plant and bark of *Crateva magna* are crushed together and applied on the affected area. Tooth gum pain- Bark and seeds of *Cuminum cyminum* are crushed together and applied on the affected part. Piles: Sitz-bath is taken in warm bark decoction for at least for 15 minutes twice daily.³⁴

Throat pain- Bark paste is applied over the throat. Waist pain- Warm bark paste is applied on the affected area. Flower Eye swelling and redness of eye- fresh flowers are crushed to paste and warmed. It is applied over the eyries.³⁵

Aphrodisiac – Flower (15 gm) are boiled in cow milk (250ml) and taken once daily to enhance sexual vigour power. Urinary tract inflammation- Fresh flower extract (1 teaspoon) is taken along with coconut water (half a glass) 2 times daily. Seed Gout, joint pain and rheumatoid arthritis – Warm seed oil is massaged on the affected part. Senselessness- Seed is rubbed on a stone and the paste is applied on the eye.³⁶

Eye inflammation- Seed is rubbed on a stone and the paste along with honey is applied on the iris to cure eye inflammation Earache- Seed extract (2-3 drops) is poured in to the ear. Leprotic wound- Seed oil is applied 2 times daily regularly. Anthelmintic- Seed powder (1-2gm) is taken with water 2 times daily to expel out the intestinal worm.

Night blindness- Equal amount of seeds of the plant, seeds of *Pongamia pinnata*, and flower of *Myristica fragrans* are crushed together and use as smut in the eyes.

Appetizer- Seed powder (1-3gm) is taken once daily in empty stomach. Menorrhagia – Seed powder (1-3 g) is taken 2 times daily. Stomach pain- Seed powder (1-3 g) is taken 2 times daily to cure stomach pain during menstrual cycle.³⁷

Gum Whitlow - Fresh gum paste is applied over the affected part. Carries of teeth- Gum of the plant is chewed. Headache- Gum is crushed with cow milk and is applied on forehead. Boil- Gum is rubbed on a stone with cow milk and is applied over the affected part³⁸⁻⁴⁰

CONCLUSION: *M. oleifera* is a traditional medicinal plant with a rich history of use in Asia. The plant's various parts are used to treat a range of health conditions, including digestive disorders, skin conditions, and respiratory infections. The plant's phytochemical composition and pharmacological activities provide a scientific basis for its traditional uses, with the presence of bioactive compounds, such as alkaloids, glycosides, and phenolic acids,

contributing to its medicinal properties. Further research is needed to fully explore the potential health benefits of *M. oleifera* and to develop new drugs and therapies from this

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