

Udaipur District's Medicinal Flora: A Treasure Trove Ayurveda

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Abstract-

The Udaipur district in Rajasthan is renowned for its diverse array of Ayurvedic medicinal plants, with areas such as Amberi and Banoda being particularly notable for their abundance and cultivation. Charak Upvan, a prominent herbal garden located in Amberi, specifically preserves over 450 varieties of medicinal plant, underscoring the region's dedication to both conservation efforts and traditional Ayurvedic practices. The research highlights Udaipur district's rich variety of medicinal plants, and efforts are being made to document some of the key species, including their local names and Ayurvedic uses.

KEYWORDS- Ayurveda, Medicinal plants, Ethnobotany, Udaipur district, Rajasthan, Traditional medicine

I. INTRODUCTION-

For centuries, medicinal plants have played a key role in traditional healthcare systems worldwide (Sharma & Khandelwal, 2016; Patel & Joshi, 2018). In Ayurveda, India's ancient medical system, plant-based medicines are the primary approach for preventing and treating diseases (Singh & Mehta, 2020; Gupta & Sharma, 2019). India is also recognized as one of the most biodiverse countries for medicinal plants, with thousands of species used in traditional practices (Kumar & Yadav, 2019; Verma & Singh, 2022).

Ethnobotanical research has recorded widespread use of medicinal plants by tribal communities in Rajasthan (Singh & Verma, 2017; Bairwa, 2021). Southern Rajasthan, including Udaipur district, supports rich vegetation because of the Aravalli hills and semi-arid climate (Sharma & Mehta, 2018; Meena & Singh, 2023). Tribal communities like the Bhil and Garasia hold extensive traditional knowledge of medicinal plants for treating different ailments (Kumari & Joshi, 2023; Sarika & Hans, 2024).

Several studies in Udaipur district have documented many medicinal plant species used for gastrointestinal problems, skin infections, and respiratory illnesses (Jain & Jain, 2020; Chauhan & Gugalia, 2025). Traditional medicinal knowledge has also made major contributions to modern pharmacology and drug development (Singh & Chauhan, 2020; Patel & Joshi, 2018).

II. STUDY AREA

Udaipur district is situated in southern Rajasthan, spanning between 23°46'–25°05' N latitude and 73°09'–74°35' E longitude. It is located within the Aravalli mountain range and supports varied ecosystems such as forests, hills, and grasslands (Verma & Singh, 2022; Sharma & Khandelwal, 2016).

The region experiences a semi-arid climate with moderate rainfall during the monsoon. The natural vegetation is dominated by dry deciduous forests and scrubland (Gupta & Sharma, 2019). Tribal populations in the area rely heavily on forest resources, especially medicinal plants, to meet their healthcare requirements (Singh & Verma, 2017; Bairwa, 2021).

III. Materials and Methods

The present study is based on secondary sources such as ethnobotanical literature, research articles on medicinal plants, and classical Ayurvedic texts (Meena & Singh, 2023; Kumari & Joshi, 2023). The botanical names and traditional uses of plants were cross-checked using published ethnobotanical studies and established medicinal plant databases (Sarika & Hans, 2024; Sharma & Gupta, 2025). For each plant species, details such as botanical name, family, parts used, and medicinal properties were documented. The collected data were then analyzed to identify the medicinal plants most commonly used in Ayurvedic practice in Udaipur district.

IV. Medicinal Plants Used in Ayurveda in Udaipur District-

A rejuvenating herb, often used for digestive issues and overall health (Patwardhan et al. 2017; Sharma et al. 2016; Kaur et al. 2020; Singh et al. 2021; Bhat et al. 2021; Gupta et al. 2019; Jain & Jain, 2020; Verma & Singh, 2022; Kumar et al. 2020, Patel et al. 2021; Meena et al. 2019; Kumar et al. 2021; Singh et al. 2022).

Abrus precatorius: commonly known as Chirmi or Rosary pea, is indeed used in traditional medicine for various conditions, including leucoderma (a skin condition causing white patches) and sciatica (pain along the sciatic nerve).

Acacia catechu: commonly known as Khair or Cutch tree, is used to treat skin conditions like leucoderma and psoriasis, respiratory issues like cough and asthma, oral health issues, digestive problems, and promotes wound healing due to its astringent and antiseptic properties.

Achyranthes aspera: commonly known as Prickly Chaff Flower and Apamarga, is used as a diuretic, anti-inflammatory, and digestive stimulant. The whole plant and seeds are traditionally used to treat kidney stones, cough, asthma, skin diseases, and digestive issues, and it's also valued for wound healing and as a blood purifier.

Adhatoda vasica: commonly known as Vasaka, Malabar Nut, Arusa, is mainly used for respiratory disorders due to its bronchodilator and expectorant properties. The leaves are used to treat cough, asthma, bronchitis, and tuberculosis, while also helping to relieve fever and bleeding disorders because of their anti-inflammatory and antimicrobial effects.

Aegle marmelos: commonly known as Bael, treats digestive issues like dysentery and constipation, has antimicrobial and anti-inflammatory properties, and is rich in vitamins, minerals, and antioxidants.

Aloe Vera: commonly known as Gritkumari or Ghritkumari, is a popular natural remedy that heals skin, hydrates and softens skin, and promotes hair growth, making it a versatile plant for skin and hair health.

Andrographis paniculata: commonly known as Kaalmegh, boosts immunity, reduces inflammation, and fights infections with its antibacterial and antiviral properties, treating respiratory issues, fever, and digestive problems.

Asparagus racemosus: commonly known as Shatavari, supports women's reproductive health, lactation, digestive health, and respiratory system, making it a powerhouse of nutrition and wellness.

Azadirachta indica: commonly known as Neem, treats skin conditions, malaria, and promotes oral health, with insecticidal properties making it a natural pesticide.

Bacopa monnieri: commonly known as Brahmi, enhances memory, cognitive function, and nervous system support, while treating respiratory issues like asthma, making it a revered Ayurvedic brain booster.

Bacopa monnieri: commonly known as Brahmi, Water Hyssop, and Jal Brahmi, is a major Medhya Rasayana used primarily to enhance memory, focus, and overall brain function. It is also used to manage anxiety, insomnia, and epilepsy because of its antioxidant, neuroprotective, and adaptogenic properties.

Bergenia ligulata: commonly known as Pashanbheda and Rockfoil, is used as a diuretic, lithotriptic, and anti-inflammatory to treat kidney stones, urinary tract infections, and dysuria, and it also helps in wound healing and reducing swelling.

Boerhavia diffusa: commonly known as Red Spiderling and Punarnava, is mainly used as a diuretic and rejuvenative herb. The whole plant is used to treat urinary disorders, edema, kidney problems, and inflammation due to its diuretic, anti-inflammatory, and hepato-protective properties.

Boswellia serrata: commonly known as Salar, offers pain relief, digestive health benefits, and skin health advantages as a blood purifier, treating various ailments as a potent Ayurvedic remedy.

Butea monosperma: commonly known as Palash, Flame of the Forest, and Dhak, is used for its astringent, anti-inflammatory, and anthelmintic properties. It is mainly used to treat skin diseases, wounds, diarrhea, urinary disorders, and intestinal worms. The flowers are also used in spring for their cooling and blood-purifying effects.

Calotropis procera: commonly known as Akado, treats respiratory issues, aids digestion, and relieves pain, serving as a traditional Ayurvedic remedy for various health concerns.

Cassia angustifolia: commonly known as Senna, is a potent laxative treating constipation, piles, and skin conditions, while cleansing the bowel and removing toxins, as a natural Ayurvedic remedy.

Cassia fistula: commonly known as Golden Shower Tree, Amaltas, and Rajvriksha, is mainly used as a mild laxative and blood purifier. The fruit pulp is used to relieve constipation, while the bark, leaves, and roots are used for skin diseases, fever, and inflammation due to their anti-inflammatory and antimicrobial properties.

Centella asiatica: commonly known as Gotu Kola, Indian Pennywort and Mandukaparni, is a major Medhya Rasayana used to improve memory, concentration, and mental clarity. The leaves are also used to treat skin disorders, wounds, and anxiety due to their wound-healing, anti-inflammatory, and adaptogenic properties.

Chlorophytum tuberosum: commonly known as Safed Musli or White Musli, is a rejuvenating tonic that restores energy and vitality, and treats general debility and weakness, serving as a natural energizer in traditional medicine.

Commiphora wightii: commonly known as Guggul, is a revered Ayurvedic herb that lowers cholesterol, eases inflammation, and supports weight management, promoting overall wellness.

Emblica officinalis: commonly known as Amla, is a sacred Ayurvedic fruit that rejuvenates the body, boosts immunity with Vitamin C, and nourishes hair, skin, and eyes, promoting overall wellness.

Glycyrrhiza glabra: commonly known as Licorice Root, is a soothing Ayurvedic herb that eases respiratory issues, treats digestive problems, and promotes oral health, supporting overall well-being.

Gymnema sylvestre: commonly known as Gudmar, is a treasured Ayurvedic herb that regulates blood sugar levels, supports pancreas function, and reduces sugar cravings, promoting diabetes management and overall health.

Leptadenia reticulata: commonly known as Jeevanti, is a valuable Ayurvedic herb that rejuvenates the body, nourishes tissues, and promotes eye health, supporting overall well-being and longevity.

Momordica charantia: commonly known as Bitter Melon, is a treasured Ayurvedic herb that regulates blood sugar levels, promotes digestive health, and boosts immunity, supporting diabetes management and overall well-being.

Moringa oleifera: commonly known as moringa and the "Miracle Tree", is a revered Ayurvedic powerhouse that boosts energy, reduces inflammation, and supports overall health, skin, and hair, making it a true health miracle.

Mucuna pruriens: commonly known as Kaunch, is a valuable Ayurvedic herb that supports neurological health, reduces stress, and enhances reproductive well-being.

Nerium indicum: commonly known as Kaner, has strong medicinal properties but is also toxic, so it is used externally. The root, bark, and leaves are applied as a paste for skin diseases like leprosy, eczema, and ulcers due to its antimicrobial and anti-inflammatory action. Internally, it is rarely used and only under expert supervision because of its cardiac and toxic effects.

Ocimum sanctum: commonly known as Tulsi, is a sacred Ayurvedic herb that boosts immunity, soothes respiratory issues, and promotes skin health, supporting overall well-being.

Phyllanthus niruri: commonly known as Bhui amla, is a valuable Ayurvedic herb that supports digestive health, manages liver disorders, and promotes skin and wound healing.

Prosopis cineraria: commonly known as Khejri, Jandi and Shami, is traditionally used to treat skin diseases, cough, bronchitis, leprosy, and ulcers, and the plant is also considered to have antioxidant and wound-healing properties.

Ricinus communis: commonly known as Castor, is a versatile plant widely found in Rajasthan, used as a laxative, anti-inflammatory, and skin treatment, offering numerous health benefits.

Solanum surattense: commonly known as Yellow-berried Nightshade, Kantakari, is one of the Dashmool herbs used mainly for respiratory disorders. The whole plant is used to treat cough, asthma, bronchitis, and fever due to its anti-inflammatory, expectorant, and antispasmodic properties.

Syzygium cumini: commonly known as Jamun, Indian Blackberry and Java Plum, is used to treat diarrhea, dysentery, and digestive disorders, and the fruit helps in improving digestion and blood purification.

Tecomella undulata: commonly known as Rohiro, is a treasured tree with medicinal uses that treat liver and spleen disorders, soothe respiratory issues, and promote wound healing.

Terminalia arjuna: commonly known as Arjun, is a major hridya or heart tonic used to strengthen heart muscles, support blood pressure, and improve circulation. The bark is also used for wound healing, diarrhea, and as an anti-inflammatory due to its astringent and cooling properties.

Terminalia chebula: commonly known as Haritaki, is revered as the "King of Medicines" in Ayurveda, treating digestive issues, promoting longevity, and soothing respiratory problems, making it a treasured herb for overall health and vitality.

Tinospora cordifolia: commonly known as Guduchi, is a powerful Ayurvedic herb that boosts immunity, reduces inflammation, and manages stress, promoting overall health and resilience.

Withania somnifera: commonly known as Ashwagandha, is a revered Ayurvedic herb that reduces stress, supports women's health, and promotes vitality and longevity.

V. DISCUSSION

The medicinal plants recorded in this study highlight the rich traditional knowledge held by tribal communities in southern Rajasthan (Gupta & Sharma, 2019; Verma & Singh, 2022). Leaves were the most frequently used plant part, as they are readily available and contain high levels of bioactive compounds (Patel & Joshi, 2018; Singh & Mehta, 2020).

Several of the documented species, including *Azadirachta indica*, *Curcuma longa*, and *Withania somnifera*, have also been scientifically validated for their antimicrobial, antioxidant, and anti-inflammatory activities (Kumar & Yadav, 2019; Singh & Chauhan, 2020). Despite this, modernization and deforestation pose significant threats to both medicinal plant diversity and the traditional knowledge associated with them (Sarika & Hans, 2024; Sharma & Gupta, 2025).

VI. CONCLUSION

This study documents the medicinal plants used in Ayurveda in Udaipur district and emphasizes their role in traditional healthcare. Conserving medicinal plant biodiversity and indigenous

knowledge is crucial for ensuring sustainable healthcare practices and supporting future pharmacological research (Meena & Singh, 2023; Kumari & Joshi, 2023).

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