

Study of some Angiosperm plants for their medicinal values in U.P. Region

Tannu Singh* and Arvind Singh

Department of Botany, T.D.P.G. College Jaunpur - 222002 (India)

Affiliated to VBSPU, Jaunpur (India)

*Corresponding author – Tannu Singh

Abstract

The study examined the utilization of wild plants for medicinal purposes and traditional plant knowledge in the Uttar Pradesh (U.P.) population. Data was obtained through conversations with neighbors. The traditional healers and the local community came up with a list of the traditional names for these plants. An extensive range of customs, ceremonies, and therapeutic applications linked to native plant species are included in Uttar Pradesh's ethnobotanical knowledge. The profound bond that exists between communities and their natural settings is reflected in this knowledge, which has been passed down through the years through oral traditions and hands-on learning. Ethnobotanical knowledge also contributes to rural economies and community resilience by supporting traditional livelihoods like farming, herbal medicine, and handicrafts. In Uttar Pradesh, communities uphold sustainable lifestyles firmly anchored in regional ecosystems through the integration of native farming methods and plant-based resources.

Key word : Ethnobotany, medicinal value and plants.

The most populous state in India, Uttar Pradesh, is well known for its wide variety of flora, which is intricately entwined with the lives of its people as well as its rich cultural legacy and historical significance. A tapestry of traditional knowledge, practices, and beliefs about the use of plants for various reasons, from healthcare to spiritual rites, is revealed by ethnobotany in the Uttar Pradesh region.

Eighty percent of the developing

world continues to benefit from the usage of traditional medicines made from medicinal plants, according to the World Health Organization (WHO). Compared to the 28,187 medicinal species that people use, there are an estimated 374,000 plants in total. The World Health Organization has also cataloged more than 20,000 species of medicinal plants and identified them as a possible source of novel pharmaceuticals. There are laws governing medicinal plants in more than 100 nations.

More than 30,000 antimicrobial molecules have been extracted from plants, and more than 1340 species have been found to exhibit antimicrobial action. Furthermore, it's believed that between 14 and 28 percent of higher plant species have medicinal properties, and that 74% of bioactive chemicals generated from plants were shown to have ethnomedicinal benefits. Rural and tribal people still live in Indian communities, and they are used to and make use of the diverse local flora. Instead of relying primarily on traditional treatments to cure common illnesses, these tribal and rural people used to visit doctors seldom. Ayurveda is used to teach herbal medicine there. We call it ethnomedicine nowadays. Stated differently, it is also referred to as ethnobotany. There are still people in tribal and rural areas of Indian populations who are familiar with We would like to impart our knowledge of the many uses for plants to those who are not as knowledgeable as we are. Plants or their parts can be consumed as extracts, decoctions, infusions, juices, powders, food, etc., or applied topically as pastes, ointments, rubbings, etc. I've observed that a number of species are in danger of going extinct or becoming endangered while working in this field.

Plants have long been used by humans as a primary source of preventive and therapeutic medicine. According to recent estimates, over 9,000 plants have been used medicinally in different cultures and nations. This information is based on estimations rather than thorough study including many indigenous and non-indigenous people². These kinds of traditional plant-based medical systems provide primary care for over 80% of the world's population, or 4.3 billion people, according to the World Health Organization¹. On a Sumerian

clay slab from Nagpur, the earliest documented written account of the usage of medicinal herbs to produce remedies was found to be 5000 years old. There were twelve recipes for preparing drugs, some of which mentioned more than 250 different plants, some of which were alkaloid plants including poppies, henbane, and mandrake³. An overview of the medicinal plants used by Uttar Pradesh tribal people is given in this review article. It provides information on the diversity of plant species, traditional medical practices, and the pharmacological characteristics of particular medicinal plants⁴.

Heavy industry's absence from the district is the main reason for this. On the Varanasi-Jaunpur route, numerous industries are developing. Around Karanja Kala, there is a cotton mill in operation. There are approximately 85 industrial units in Sathariya as well, including M/s Raja Flour Mill, Pepsico India Holdings, Hawkins Cookers Limited, Amit Oil & Vegetable, Chaudhary Steel Limit, and Saurya Aluminium.

For their medicinal qualities, ten plants, including trees, shrubs, and herbs, were selected for the current study. Grown in the Jaunpur region, these plants have special ethnobotanical properties.

The locations of significant ethnobotanical plants in the U.P. were regularly visited in order to collect data on the species of medicinal herbs. We conducted interviews and surveys with seniors to acquire data during the exploration, covering a wide range of issues. We tried to fit their identities by posing a few questions concerning their environment, habits, and other traits. This is authentic, ancient wisdom, never before carefully documented.

Fig. 1. Table illustrating the family, local name, botanical name, and parts' medicinal value in the Jaunpur area

S. N.	Family Name	Scientific Name	Local Name	Parts use	Disorder Name
1	Amaranthaceae	<i>Achyranthes aspera</i> Linn.	Latjeera	Root, Leaf	Gynecological Disorder, Dysentery Bronchitis
2	Apocynaceae	<i>Catharanthus roseus</i> (Linn.) G. Don	Sadabahar	Leaf	Blood Cancer, Diabetes
3	Asclepiadaceae	<i>Calotropis procera</i> (Ait.) R. Br.	Madar	Root	Wound Rheumatic Pain
4	Cannabaceae	<i>Cannabis sativa</i> Linn.	Bhang	Leaf	Ear problem
5	Lamiaceae	<i>Ocimum sanctum</i> Linn.	Tulsi	Leaf	painful Tooth, Cough
6	Liliaceae	<i>Aloe barbadensis</i> miller.	Ghritkumari	Leaf	Malaria, Ulcer
7	Meliaceae	<i>Azadirachta indica</i> A. Juss.	Neem	Leaf, Bark	Skin problem, Anticancer, Woundhealing. Antidiabetic
8	Menispermaceae	<i>Tinospora cordifolia</i> (Willd.) Miers.	Giloy	Stem	Delivery pain
9	Rutaceae	<i>Aegle marmelos</i> (L.) Correa	Bel	Leaf	Diabetes
10	Solanaceae	<i>Solanum nigrum</i> Linn.	Makoi	Leaf	Liver disorder

Information about U.P. informants have been combined. All things considered, a great deal of fieldwork has been done, and excellent photographs have been taken. Both the scientific names and colloquial names for the plant families were included.

The identification and preservation of medicinal plants in Uttar Pradesh are aided by ethnobotanical research. Herbal medicines have a significant role in traditional medicine

systems like Ayurveda, Unani, and Siddha. It is easier to find possible sources for novel medications and to manage medicinal plant resources sustainably when one is aware of the traditional uses of plants.

Plant diversity, traditional knowledge, and sustainable practices can be made more widely known to the public, policymakers, and local communities through ethnobotanical research and outreach initiatives.

The rich medicinal flora of Uttar Pradesh is well known. There are several health advantages to plants including ashwagandha, neem, tulsi, and aloe vera. Tulsi offers both medicinal and spiritual benefits, Neem is antimicrobial, Ashwagandha is an adaptogen, and Aloe Vera is excellent for digestion and cosmetics. These plants have a wealth of medicinal qualities, making them similar to nature's pharmacy. Overall, ethnobotany plays a vital role in Uttar Pradesh by bridging traditional knowledge with modern science, promoting conservation, and supporting sustainable development initiatives in the region.

Enumerations : Every plant specimen that was gathered was organized using the angiospermic categorization system developed by Bentham and Hooker.

Some common ethnobotanical plants that have therapeutic use in Uttar Pradesh are ashwagandha, aloe vera, and neem. Aloe Vera is recognized for its ability to cure skin, ashwagandha for its adaptogenic qualities, and neem for its antibacterial qualities. These plants are still widely utilized in contemporary herbal therapy, having been used traditionally for a variety of health benefits.

The following are the findings of a study conducted in the Uttar Pradesh region on various angiosperm plants for their potential therapeutic uses:

The study discovered anti-inflammatory, anti-microbial, and anti-diabetic herbs in Uttar Pradesh. Aloe Vera, ashwagandha, and neem are a few Uttar Pradesh medicinal plant examples. Neem is well-known for having

antifungal, antibacterial, and anti-inflammatory qualities. Great for skincare, too. Neem leaves can be used to make a paste that can be applied topically to treat acne. Another plant that is good for skincare is aloe vera, which has calming and hydrating qualities.

Fruit, seeds, inflorescence, roots, stem, bark, leaves, and flowers :

The aforementioned organs of each species have been collected, based on availability. Every component of the healthy plants has been accumulated. Instead of being exposed to the sun, they were dried in the shade.

Each species' organs are divided and then ground. The ground materials have undergone two phases of analysis. Even the chemical components have been discovered. Consideration will be granted based on fieldwork, observations, and notes. This will make clear the actual value of plants in terms of medicine.

This will make clear the actual value of plants in terms of medicine. In this study, the top ten widely used medicinal plants that grow year-round in the Uttar Pradesh region have been examined, with particular emphasis on the parts' medicinal value. The bulk of plant component benefits have been accounted for by the plants that have been investigated. The primary source of phytochemicals is the plant's foliage and flowers. These pieces have a great therapeutic value. Millions of lives might be saved, numerous forms of Ayurvedic medicine could be prepared, and rural employment could increase with the successful establishment of these ten carefully chosen

medicinal plants in Uttar Pradesh.

To sum up, research on ethnobotany conducted in the state of Uttar Pradesh highlights the significance of customary knowledge, preservation of biodiversity, cultural legacy, and the sustainable utilization of medicinal plants. These studies offer a comprehensive understanding of the complex interactions that exist between people and plants as well as insightful information on the potential applications of botanical resources in the fields of environmental sustainability and healthcare.

Even though they were current students, it was clear from ethnobotanical interviews that the younger generation felt insecure and had little interest in talking about plants. On the other hand, when we asked elderly people about medicinal plants and their use, they seemed happy. Before it is lost to future generations, it is imperative that traditional knowledge about the use of medicinal plants be documented. Apart from

the application of therapeutic plants, our investigation shed light on the dissemination of knowledge about medicinal plants. We discovered that younger people knew less about medicinal plants than older people, regardless of gender or difference in time since immigration.

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