



## MEDICINAL USES OF TRADITIONALLY USED PLANTS IN BALDEVGARH, DISTRICT TIKAMGARH, MADHYA PRADESH, INDIA

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### ABSTRACT :

Plants are very useful source of various bioactive compounds which have direct or indirect use in the treatment of various human ailments. From the time immemorial, human civilizations have been exploring and using various plants and plant products to cure the deadly diseases. The use of plants and their parts as an ethno-medicine for the treatment of various diseases is a common practice among the tribal communities around the world since time immemorial. Field surveys carried out in the villages of Baldevgarh block Tikamgarh (M.P.) have resulted in the documentation of 21 medicinal, aromatic and spice plant species. These species were distributed over various life forms, like tree, shrub and herbaceous forms. For curing various ailments, the use of aboveground plant parts was relatively higher than the belowground parts. Different belowground plant forms such as root, bulb, tuber and rhizome were used for preparing herbal medicines. However, due to the changing perception of the user communities, commercialization and socio-economic transformation all around the world. Conservation and sustainable utilization of these valuable medicinal plant species is essential to protect the traditional knowledge regarding plants and plant based healing practices.



**KEYWORDS :** Medicinal plants, traditional uses, threatened species, Baldevgarh, biodiversity.

### I. INTRODUCTION :

Since the prehistoric times, human civilization got interested in the study of medicinal plants. India is rich in medicinal plants with all the three levels of biodiversity such as species, genetic and habitat diversity. The term "**medicinal plant**" includes various types of plants used in herbalism ("herbology" or "herbal medicine"). It is the use of plants for medicinal purposes, and the study of such uses. The word "**herb**" has been derived from the Latin word, "*herba*" and an old French word "*herbe*". Now days, herb refers to any part of the plant like fruit, seed, stem, bark, flower, leaf, stigma or a root, as well as a non-woody plant. Earlier, the term "herb" was only applied to non-woody plants, including those that come from trees and shrubs. These medicinal plants are also used as food, flavonoid, medicine or perfume and also in certain spiritual activities.

Plants have been used for medicinal purposes long before prehistoric period. Ancient Unani manuscripts Egyptian papyrus and Chinese writings described the use of herbs. Evidence exist that Unani Hakims, Indian Vaidys and European and Mediterranean cultures were using herbs for over 4000 years as medicine. Indigenous cultures such as Rome, Egypt, Iran, Africa and America used herbs in their healing rituals, while other developed traditional medical systems such as Unani, Ayurveda and Chinese Medicine in which herbal therapies were used systematically.

Traditional systems of medicine continue to be widely practiced on many accounts. Population rise, inadequate supply of drugs, prohibitive cost of treatments, side effects of several synthetic drugs and development of resistance to currently used drugs for infectious diseases have led to increased emphasis on the use of plant materials as a source of medicines for a wide variety of human ailments.

Among ancient civilizations, India has been known to be rich repository of medicinal plants. The forest in India is the principal repository of large number of medicinal and aromatic plants, which are largely collected as raw materials for manufacture of drugs and perfumery products. About 8,000 herbal remedies have been codified in AYUSH systems in INDIA. Ayurveda, Unani, Siddha and Folk (tribal) medicines are the major systems of indigenous medicines. Among these systems, Ayurveda and Unani Medicine are most developed and widely practiced in India.

Recently, WHO (World Health Organization) estimated that 80 percent of people worldwide rely on herbal medicines for some aspect of their primary health care needs. According to WHO, around 21,000 plant species have the potential for being used as medicinal plants. As per data available over three-quarters of the world population relies mainly on plants and plant extracts for their health care needs. More than 30% of the entire plant species, at one time or other was used for medicinal purposes. It has been estimated, that in developed countries such as United States, plant drugs constitute as much as 25% of the total drugs, while in fast developing countries such as India and China, the contribution is as much as 80%. Thus, the economic importance of medicinal plants is much more to countries such as India than to rest of the world. These countries provide two third of the plants used in modern system of medicine and the health care system of rural population depend on indigenous systems of medicine.

Treatment with medicinal plants is considered very safe as there is no or minimal side effects. These remedies are in sync with nature, which is the biggest advantage. The golden fact is that, use of herbal treatments is independent of any age groups and the sexes. The ancient scholars only believed that herbs are only solutions to cure a number of health related problems and diseases. They conducted thorough study about the same, experimented to arrive at accurate conclusions about the efficacy of different herbs that have medicinal value. Most of the drugs, thus formulated, are free of side effects or reactions. This is the reason why herbal treatment is growing in popularity across the globe. These herbs that have medicinal quality provide rational means for the treatment of many internal diseases, which are otherwise considered difficult to cure.

Medicinal plants such as *Aloe*, *Tulsi*, *Neem*, *Turmeric* and *Ginger* cure several common ailments. These are considered as home remedies in many parts of the country. It is known fact that lots of consumers are using Basil (*Tulsi*) for making medicines, black tea, in *pooja* and other activities in their day to day life. In several parts of the world many herbs are used to honour their kings showing it as a symbol of luck. Now, after finding the role of herbs in medicine, lots of consumers started the plantation of tulsi and other medicinal plants in their home gardens.

Medicinal plants are considered as a rich resources of ingredients which can be used in drug development either pharmacopoeial, non- pharmacopoeial or synthetic drugs. A part from that, these plants play a critical role in the development of human cultures around the whole world. Moreover, some plants are considered as important source of nutrition and as a result of that they are recommended for their therapeutic values. Some of these plants include ginger, green tea, walnuts, aloe, pepper and turmeric etc. Some plants and their derivatives are considered as important source for active ingredients which are used in aspirin and toothpaste etc.

Apart from the medicinal uses, herbs are also used in natural dye, pest control, food, perfume, tea and so on. In many countries different kinds of medicinal plants/ herbs are used to keep ants, flies,

mice and flee away from homes and offices. Now a days medicinal herbs are important sources for pharmaceutical manufacturing.

Recipes for the treatment of common ailments such as diarrhoea, constipation, hypertension, low sperm count, dysentery and weak penile erection, piles, coated tongue, menstrual disorders, bronchial asthma, leucorrhoea and fevers are given by the traditional medicine practitioners very effectively. Over the past two decades, there has been a tremendous increase in the use of herbal medicine; however, there is still a significant lack of research data in this field. Therefore since 1999, WHO has published three volumes of the WHO monographs on selected medicinal plants.

Slowly, the traditional knowledge on the use of plant resources is shrinking growing to several reasons, including shift in attitude of present generation towards a more western lifestyle, increased usage and availability of allopathic medicines along with declining interest of younger generations to carry forward the tradition. Therefore, a need is repeatedly felt to document such valuable information on the use of plant species before it vanishes completely.

Tikamgarh district (M.P.) comes under the region of Bundelghand and contains within itself variety of geographic environment. Due to the different climate and topographic conditions in Tikamgarh district, an extensive range of vegetation and habitats is available to diverse species of wild life. Villages of Baldevgarh block, especially for curing diseases and use as perfumes.

## II. MATERIAL AND METHODS

The present study was based on a field survey conducted in 2020-21 in Baldevgarh block district Tikamgarh (M.P.), to find the plants of medicinal, perfumery and spice values. The work was conducted among local people, rural folk, farmers and Vaidyas to collect valuable information about medicinal importance of mentioned plants. The plants with medicinal values, as known from local people and rural persons were collected and studies were made to know their medicinal and other uses by consulting relevant literature.

### A. Study area :-

Tikamgarh district is divided into three sub-divisions, which are further divided into seven tehsils. The district consists four development blocks, namely Tikamgarh, Baldeogarh, Jatara and Palera. Baldeogarh is located at 24.75°N 79.07°E. It has an average elevation of 319 metres (1046 feet). The headquarters town of the Baldeogarh is a tehsil of the same name. According to census 2011 information the sub-district code of Baldeogarh Block (CD) is 03421. Total area of baldeogarh tehsil is 448 km<sup>2</sup> including 447.85 km<sup>2</sup> rural area and 0.31 km<sup>2</sup> urban area. Baldeogarh tehsil has a population of 1,23,125 peoples, out of which urban population is 9,079 while rural population is 1,14,046. Baldeogarh has a population density of 274.7 inhabitants per square kilometre. There are about 26,901 houses in the sub-district, including 1,701 urban houses and 25,200 rural houses. There are about 96 villages in baldeogarh tehsil

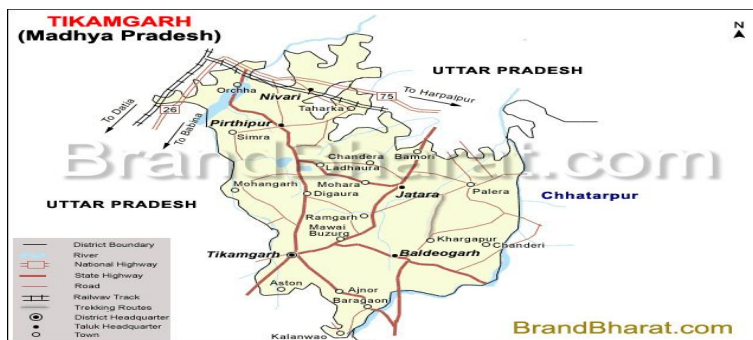


Fig. 1. Map of Study Area Baldevgarh Tikamgarh (M.P.)

**Table- 1. Plants used as medicines, perfumes and spices by local people in Villages Baldevgarh, District Tikamgarh, Madhya Pradesh, India**

Sr. No.	Local name	Botanical Name	Family	Part Used	Uses	Reference
1.	Amla	<i>Emblica officinalis</i> Gaertn.	Euphorbiaceae	Fruit, root, leaves	Heart diseases, obesity, Alzheimer's disease, Parkinson's disease and Huntington's chorea	Velayutham <i>et al.</i> , (2012)
2.	Fig	<i>Ficus carica</i> L.	Moraceae	Fruit	Colic, indigestion, loss of appetite, coughs, bronchial problems and cardiovascular disorders	Mawa <i>et al.</i> , (2013)
3.	Garlic	<i>Allium sativum</i> L.	Liliaceae	Bulb	Inflammation, high cholesterol, high homocysteine, high blood pressure, diabetes and Alzheimer's disease	Bongiorno <i>et al.</i> , (2008)
4.	Pudina	<i>Mentha arvensis</i> L	Lamiaceae	Whole plant	Jaundice, abdominal pain, antiemetic, food, flavouring agent)	Janghel <i>et al.</i> , (2019)
5.	Dhania	<i>Coriandrum sativum</i> L.	. Apiaceae	Leaf, seeds	Diabetes, inflammation, insomnia, anxiety, convulsion, measles, food, spice	Wei <i>et al.</i> , (2019)
6.	Bhindi	<i>Abelmoschu sesculentus</i> (L.)Moench.	Malvaceae	Seed	Fever, vegetable	Tomar (2017)
7.	Doob	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Leaf	Diabetes, burning sensation, dysentery, vomiting	Dangwal (2015)
8.	Arandi	<i>Ricinus communis</i> L.	.Euphorbiaceae	Leaf	Internal injury, arthritis, constipation	Topwa (2018) Pandey <i>et al.</i> , 2017
9.	Bhang	<i>Cannabis sativa</i> L.	Cannabaceae	Seed, leaf	Cancerous ulcers, tumors, diabetes, ,	Kuddus et al ( 2013)

					epilepsy, gonorrhoea	
10.	Pipal	<i>Ficus religiosa</i> L.	Moraceae	Root, bark, leaf, fruit	Diabetes, liver diseases, migraine, epilepsy, tuberculosis, gonorrhoea, chickenpox, cardiac edema, Scabies, leucorrhoea	Singh <i>et al.</i> , (2011)
11.	Bel	<i>Aegle marmelos</i> (L.) Correa	Rutaceae	Leaf, fruit, stem, root	Peptic ulcer, diarrhoea, constipation, respiratory infections, jaundice	Virendraet al., (2018)
12.	Karipatta	<i>Murraya koenigii</i> L.Spreng.	Rutaceae	Leaf	Inflammation, itching, vomiting, bites of poisonous animals,	Handralet al., (2012)
13.	Muli	<i>Raphanus sativus</i> L	Brassicaceae	Seed	Appetizing, expectorant	Akgulet al., (2016)
14.	Adrak	<i>Zingibe roffcinale</i> Roscoe	Zingiberaceae	Rhizome	Headache, toothache, cough	Rawat & Jalal (2011)
15.	Haldi	<i>Curcuma longa</i> L.	Zingiberaceae	Rhizome	Fracture, wounds, galactagogue, mastitis, skin disease, cold	Tiwari & Pandey, (2010)
16.	Sahjan	<i>Moringa oleifera</i> Lam.	Moringaceae	Leaf, flower, seed	Rheumatism, venomous bites, cardiac and circulatory diseases, abdominal tumors, counter-irritant, purgative, expectorant, mild diuretic, epilepsy, hysteria	Pandey <i>et al.</i> , (2011)
17.	Guduch/ Giloy	<i>Tinospora cordifolia</i> (Wild.) Miers	Menispermaceae	Stem, root	Dyspepsia, jaundice, skin diseases, snake bit, diabetes mellitus,	Singh <i>et al.</i> , (2003)
18.	Kachnar	<i>Bauhinia variegata</i>	Fabaceae	Leaf, bark,	flower buds Heartburn, diarrhoea, menorrhagia,	Lim (2014)

					obesity, worms, bleeding hemorrhoids	
19.	Jatamansi	<i>Nardostachys jatamansi</i> (D.Don) DC.	Valerianaceae	Rhizome	Epilepsy, cerebral ischemia, liver damage insomnia, hypertension and heart diseases	Purnima & Kothiyal, (2015)
20.	Tulsi	<i>Ocimum sanctum</i> Linn	<u>Lamiaceae</u>	Whole plant	Fever, skin problems, respiratory problems. cold and sore throat, headaches and kidney stones and Asthma.	Padalia, Rajendra C.; Verma, Ram S. (2011)
21	Neem	<i>Azadirachta indica</i>	Meliaceae	Leaf, Seed, Bark, Oil	Fever, Malaria, Skin disease, dental disease	Janghel, V., Patel, P., & Chandel, S. S. (2019)

### III. RESULT AND DISCUSSION:-

The present investigation has resulted in the documentation of 21 plant species, which were used in curing various ailments; many of these species were also used as food, spice and perfumes (Table 1). These species were distributed over various life forms viz., tree species, herbaceous, and shrub species. Different plant parts were used as medicine by the local people of Baldevgarh block Tikamgarh (M.P.). For curing ailments, the use of aboveground plant parts was relatively higher than the belowground plant parts. Of the aboveground plant parts, fruits and leaves were used in the majority of cases, followed by seed and bark of woody species. Different below ground plant forms such as root, bulb, tuber and rhizome were also used as a medicine for the treatment of various ailments. Among above ground parts, flowers were used in minimum cases. Being a remote hilly region, the use of various plant species remained intact in the study area for centuries. With due course of time, the advent of commercial interests has overexploited many important plant species. The loss of native biodiversity due to natural and anthropogenic pressures and changes in traditional land-use practices altered the natural vegetation composition. The decline in diversity of useful plant species may ultimately affect the traditional system of plant use for medicine, perfumery and spice. Number of traditional herbal healers are also declining in the state due to the decline in number of youth coming forward to learn this tradition in the state. Moreover, migration of youth from hills to towns and metro cities is also playing a major role in the decline in the age old traditional therapeutics. Therefore, compilation of such valuable information is utmost essential to keep alive the traditional knowledge for the use of future generations. Scientific validation of this knowledge by isolation and purification of the phytoconstituents is also necessary for large scale use of the plants or their decoctions.

### CONCLUSION:-

As our lifestyle is now getting techno-savvy, we are moving away from nature. While we cannot escape from nature because we are part of nature. As herbs are natural products they are free from side effects, they are comparatively safe, eco-friendly and locally available. Traditionally there is lot of herbs used for the ailments related to different seasons. There is a need to promote them to save the human lives. These herbal products are today are the symbol of safety in contrast to the synthetic drugs, that



are regarded as unsafe to human being and environment. Although herbs had been priced for their medicinal, flavoring and aromatic qualities for centuries, the synthetic products of the modern age surpassed their importance, for a while. However, the blind dependence on synthetics is over and people are returning to the naturals with hope of safety and security. It's time to promote them globally.

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