

Study of Ethnobotanical Plants Found In Mirka, Tokas and Patan Villages in Hisar District, Haryana

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ABSTRACT

The ethnobotanical knowledge of medicinal plants would be beneficial for the creation of new drugs as well as the preservation of traditional cultures and biodiversity. According to an exploration survey conducted in the villages of Mirka, Tokas, and Patan in the Hisar District of Haryana, locals collect and sell these medicinal species to make a living. However, scientific farming practices and effective post-harvest management would increase local farmers' employment prospects and revenue in the area. For a variety of purposes, including defense and protection against insects, fungi, disease, and herbivorous mammals, plants manufacture hundreds of different chemical compounds. The ethnomedical use of seasonal plant growth is the foundation of the current investigation. A total of 22 wet season plants from 15 families were identified and their families, native names, habits, habitats, and other characteristics were examined.

I. INTRODUCTION

Medicinal plants are thought to be the gift of nature to humans. People living in the developing countries rely quite effectively on traditional medicines for primary health care (Singh JS). The plants that grow by themselves within the agricultural lands, gardens associate degreed on the roadsides and so on are referred to as weeds. In fact, a weed could be a plant that grows where it's not needed to grow (Parcker, 1968). In plant kingdom, weeds aren't categorized in any specific group. Instead, any plant which grows in anywhere as an unsought one comes in the class of weeds.

India is a birth place of various system of medicines such as Ayurveda, Siddha. Herbal medicines have various advantageous over

synthetic drugs: A) These are chief. B) Easily available (Babita 2021).

The study area Patan, Mirka and Tokas, is assessed as a geographical area wherever attention facilities are comparatively poor that drives the folks to think about traditional medicines.

Mirka is a village panchayet situated within the Hisar District of Haryana state, India. The latitude 29.07764 and meridian 75.7611326 are the geocoordinate of the Mirka. The overall area of Mirka is around 663 hectares (1638.31 acres).

Patan village is located in Hisar tehsil of Hisar district in Haryana, India. It is located 10 km far from Hisar. The entire geographical region of village is 1325 hectares. Agriculture is that the main profession of resident of Patan.

Tokas is a village panchayat located within the Hisar district of Haryana State, India. The latitude 29.1197563 and meridian 75.6702647 are the geocoordinate of the Tokas. The latitude 29.1197563 and meridian 75.6702647 are the geocoordinate of the Tokas.

Ethnomedicinal evaluation of medicinal flora used for treatment of gastrointestinal disorders (Jatan \$ Kumar 2020). Medicinal flowers had been aids for restoration in nearby groups round the arena for lots of years. Varied elements of medicative plants, together with herbs, shrubs, and trees, are used for curing jaundice and diseases like neurodegenerative, inflammatory, anthelmintic, diaphoretic, diuretic, and so on. Still, it stays of cutting -edge significance as a number one healthcare mode for about 85% of the arena's population (Pešić, 2015), and as an aid for drug discovery, with 80% of all artificial tablets deriving from them (Bauer and Brönstrup, 2014). Concurrently, the previous couple of hundred years has visible a prolific upward push withinside the introduction, development, and development of

natural materials analysis. In ethanobotanical study was done from December 2021 to June 2022 in Satrod Khurd and Dabra village of Hisar District and reported 33 medicinal plants which were used by local people for the treatment of diseases like indigestion, skin problems, stomach etc. (Gajanand Modi and Babita, 2022).

Medicinal plants are used incalculable times for natural process diseases principally in developing countries. They're simply accessible with very little to no aspect effects when put next to trendy medicine. Sin disease like ringworm, leucoerma and many other conditions are treated completely with herbal drugs (Prashantkumar P, Vidyasagar GM).



Fig:1 Tokas and Patan Villages showing in map



Fig.2 Mirka village shown in map

II. MATERIAL AND METHODS:

Ethnobotanical survey was done from July 2022 to October 2022. Only three villages of Hisar district were surveyed are Mirka, Patan and Tokas

villages. The information collected during the field trip was on the basis of interviews. In this information, botanical name, common name, Medicinal use were also recorded. The collected

plant was identified with the help of available taxonomic literature, flora and google lens etc. The number of articles reviewed were offered as revealed work on on-line databases (Science Direct, Pubmed, web of Science, and Google Scholar) the current study was revised from completely different scientific articles, together with twenty analysis papers, fifteen review papers, and 5 books from 1980 to the 2022 year. A list of Plants was prepared on the basis of the collected data, which belong to different families, their uses, plant part used along with the name of the plants. Pictures of plants were taken in their natural habitat. Ethnomedicinal plants was collected from the sides of the road, railway strains, barren land, crop fields etc.

III. RESULT:

During this study, 22 species of the plant belong from 15 families were recorded which is used by the local people of Tokas, Patan and Mirka villages for the treatment of many problems like diarrhea, indigestion and also for skin problems.

All information like, botanical name, vernacular name, family, plant part used, medicinal uses is shown in table 1. Digital images of all these plants were recorded and are given in table 2. The distribution of the medicinal plant species with the families is shown in table 3.

Asteraceae is the dominant family which have four species. Apocynaceae with three species. Meliaceae with two species. Crassulaceae, Asclepidaceae, Cannabinaceae, Rutaceae, Euphorbiaceae, Myrtaceae, Lamiaceae, Combretaceae, Asteraceae, Menispermaceae, Lamiaceae, Poaceae and Liliaceae with one species each.

Main parts like leaves, seeds, fruits, bark, roots, twig, flowers were used for the treatment of disease like diarrhoea, dysentery, purification of blood, skin problems etc. We have seen that some plants are used for the treatment of more than one disease like *Calotropis procera*, *Datura metal*. The data recorded during the study was compared with the related literature, research paper, websites etc.



Table 1:- Reported medicinal plant in July 2022 to October 2022 at Mirka, Tokas and Patan villages in Hisar, Haryana.





Sr. No	Botanical Name	Vernacular Name	Family	Plant Part Used	Medicinal Uses
1	<i>Cassia fistula</i> L.	Amaltas	Fabaceae	Roots	Used in joint pain, migraine, chest pain and blood dysentery.
2	<i>Catharanthus roseus</i>	Sada-bhar	Apocynaceae	Leaves	Antioxidant, antibacterial, antifungal, antidiabetic and anticancer properties.
3	<i>Melia azedarach</i> L.	Bakain	Meliaceae	leaves	Used as anthelmintic, antilithic diuretic and stomach pain
4	<i>Azadirachta indica</i> A. Juss	Neem	Meliaceae	leaves	Nourishes Skin, treats Fungal Infections, Useful in Detoxification.
5	<i>Bryophyllum pinnatum</i> (Lam.) Oken	Patharchat	Crassulaceae	leaves	Use in urinary disorders, and stone problems.
6	<i>Calotropis procera</i> (Aiton)	Aak	Asclepiadaceae	Leaves, bark	Used for diarrhoea, stomatic, sinus fistula, and skin disease,

7	<i>Eclipta alba</i> (L.) Hassk	Bhang	Cannabinaceae	leaves	treat different skin problems such as wounds, hair loss prevention, and dermatitis
8	<i>Murrayakoenigii</i>	Curry Trees	Rutaceae	leaves	Reduce the risk of cancer and heart disease.
9	<i>Emblica officinalis</i> Gaertn	Amla	Euphorbiaceae	fruits	For the treatment of diarrhea, jaundice, and inflammation.
10	<i>Syzygium nervosum</i> DC	Jamun	Myrtaceae	Seed, fruit pulp, bark, leaves	Help in lowering LDL levels in the blood thus preventing hypertension and heart attacks.
11	<i>Ocimumbasilicum</i>	Marwa	Lamiaceae	leaves	used traditionally in the treatment of gastrointestinal diseases, skin diseases, pain, sore throat, cough, scorpion bite etc.
12	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Arjun	Combretaceae	Leaves, bark	used in the Indian subcontinent for anginal pain, hypertension, congestive heart failure, and dyslipidemia,
13	<i>Tinospora sinensis</i> (Lour.) Merr	Giloy	Menispermaceae	Leaves, bark	used for chronic fever, dengue fever, hay fever, Controls blood sugar
14	<i>Alstoniascholaris</i>	Devil tree	Apocynaceae	Bark	to treat diarrhoea, dysentery, asthma, and a few types of fevers.
15	<i>Taraxacum officinale</i>	Common dandelion	Asteraceae	leaves	used to stimulate the appetite and help digestion.
16	<i>Tripidumravennae</i>	Elephant grass	Poaceae	leaves	To treat Eye Problems,






					Headache, Skin Disorders and Wounds.
17	Parthenium hysterophorus	Carrot grass	Asteraceae	leaves	Used for skin inflammation, Diarrhoea etc.
18	Erigeron bonariensis	Flax leaf fleabane	Asteraceae	leaves	To treat a variety of respiratory diseases, asthma etc.
19	Nerium oleander	Kaner	Apocynaceae	Seeds and leaves	Uses in heart failure, asthma, cancer, diabetes etc.
20	Lactucaserriola	Prickly lettuce	Asteraceae	leaves	To manage respiratory, gastrointestinal disorders.
21	Ocimumtenuiflorum	Tulsi	Lamiaceae	Leaves, stem, flower, root, seeds	To treat insect bites, heart disease etc.
22	Aloe barbadensis	Aloe vera	Liliaceae	leaves	To treat skin problems






Table 2: No of Medicinal Plants found in one km in Mirka, Tokas and Patan in Villages in Hisar.

Sr. No.	Botanical Name	Plants in one km	Images
1	Cassia fistula L.	8-12	
2	Catharanthus roseus	25-30	

3	Melia azedarach L.	40-45	
4	Azadirachta indica A. Juss	50-60	
5	Bryophyllumpinnatum (Lam.) Oken	10-15	
6	Calotropis procera (Aiton)	50-60	

7	Eclipta alba (L.) Hassk	20-25	
8	Murrayakoenigii	30-40	
9	Emblica officinalis Gaertn	25-30	
10	Syzygium nervosum DC	20-30	
11	Ocimumbasilicum	25-35	

12	Terminalia arjuna (Roxb. ex DC.) Wight & Arn.	15-20	
13	Tinospora sinensis (Lour.) Merr	20-25	
14	Alstoniascholaris	35-40	
15	Taraxacum officinale	40-45	
16	Tripidumravennae	30-40	

17	<i>Parthenium hysterophorus</i>	40-50	
18	<i>Erigeron bonariensis</i>	60-70	
19	<i>Nerium oleander</i>	65-75	
20	<i>Lactucaserriola</i>	45-50	
21	<i>Ocimumtenuiflorum</i>	30-35	


22	Aloe barbadensis	40-42	
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Table (3): Family wise distribution of species of medicinal plants recorded.

Sr. No.	Family	No. of Species
1	Fabaceae	1
2	Apocynaceae	3
3	Meliaceae	2
4	Crassulaceae	1
5	Asclepidaceae	1
6	Cannabaceae	1
7	Rutaceae	1
8	Euphorbiaceae	1
9	Myrtaceae	1
10	Lamiaceae	2
11	Combretaceae	1
12	Poaceae	1
13	Asteraceae	4
14	Menispermaceae	1
15	Lamiaceae	1

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