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## Traditional knowledge of medicinal plants used to cure gastro intestinal problems in Jalaun district of Uttar Pradesh, India.

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### Abstract

The present study documents the traditional knowledge of medicinal plants that are in use for gastro intestinal ailments prevailing in Jalaun district of Bundelkhand, U.P., India. Ethnomedicinal uses of 25 plant species along with their botanical name, vernacular name, family name and mode of administration are presented. They belong to 23 genera and 22 families. These plants used to cure 14 types of gastro intestinal ailments. The study emphasizes the potentials of the ethnobotanical research and the need for the documentation of traditional knowledge pertaining to the medicinal plants utilization for the greater benefit of mankind.

**Keywords:** Traditional medicinal plants, gastro intestinal problems, rural people, Jalaun.

### 1. Introduction

Ethnobotanical use of plants has been known since ancient time and Ethnomedicine which is a sub field of Ethnobotany or medical anthropology is receiving great attention in recent years throughout the world [1]. The practice of Ethno medicine is a complex multi disciplinary system constituting the use of plants, spirituality and the natural environment and has been the source of healing for people for millennia [2]. In India the native people are exploiting a variety of herbs for effective curing of various ailments. The plant parts used, preparation and administration of drugs vary from one place to other [3].

Up to 70% of the rural population still depends on plant resources in their vicinity for healthcare and other necessities of life. Lack of primary healthcare centers and transportation facilities, prohibitive cost of treatments, side effects of several allopathic drugs have led to increased emphasis on the use of plant materials as a source of medicines for a wide variety of human ailments [4]. The knowledge of herbal medicines is gradually perishing, although some of the traditional herbal men are still practicing the art of herbal healing effectively [5]. However, only 7,000-7,500 species are used for their medicinal values by traditional communities in India [2]. Urbanization and development activities have resulted in the decline of interest in traditional culture as well as natural vegetation in India [6]. Forest degradation process adversely affected the resource of medicinal plants. The rural poor, whose dependence on these products is very heavy, are the worst sufferers. The problems are surrounded by market demand driven harvesting without any concern for representation and conservation [7].

Unfortunately, much of the ancient knowledge and many valuable plants are being lost at an alarming rate. Many valuable plants are under the verge of extinction. It is estimated that 10% of all plant species are currently endangered in India [8]. Consequently, there is an urgent need to record and preserve is completely lost [6].

The present study deals with the medicinal plants of Jalaun district which are used to cure various gastro intestinal problems of rural people in the area.

### 2. Materials and Methods

#### 2.1 Study area

The study area Jalaun district of Bundelkhand region of U.P India is located between 26° 8' N 79° 23' E. It has an area of 4565 sq. km. with 25,640 ha of forest area. The average rainfall in the study area ranges from 399-862 mm. thus the region falls under low rainfall and semiarid zone. However, Owing to its undulating topography and severe drought conditions, the land has a number of medicinally important plants with great ethnomedicinal properties used for the treatment of various ailments by the local population (Fig. 1).

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## 2.2 Methods

The survey was conducted in Jalaun district in the Bundelkhand region of Uttar Pradesh. traditional medicinal information on medicinal plants were recorded through field observation, interviews and discussion with herbal healers, knowledgeable elder people, housewives and farmers of the villages, employing a semi-structured questionnaire which included the village name, name of correspondent, the botanical name of medicinal plant, common name, ailments for which it has been used and plant component used. For

authenticity about medicinal properties of plants, the information gathered during field study was cross checked with respondents and also with the former patients residing in the same or neighboring villages of the study region. Each of the plant species collected with the help of informants has been recorded, photographed, identified taxonomically using the standard floras and already existing specimens. The herbarium prepared and voucher specimens were deposited in the department of Basic Sciences, Bundelkhand University.

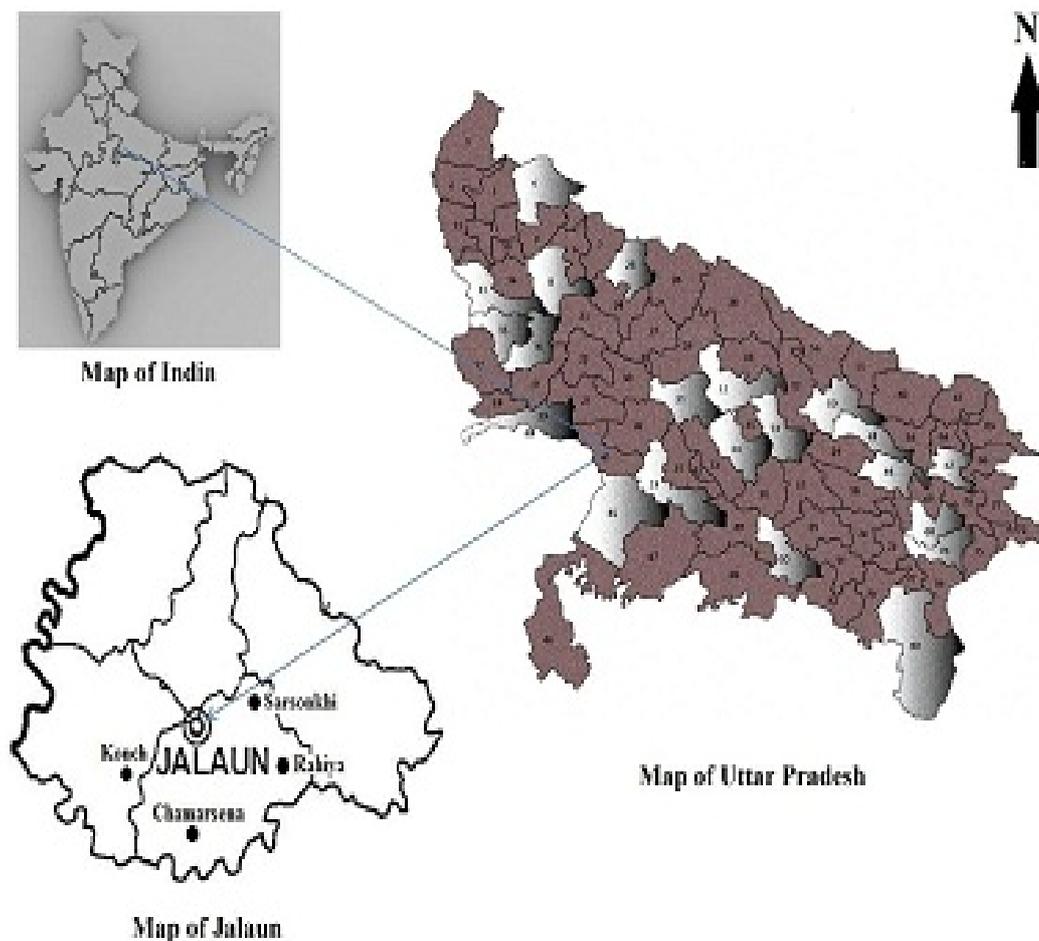


Fig 1: Location map of Investigation area

## 3. Observation

We had observed 25 plant species [13 species of tree, 5 species of shrub, only 1 species of climber and 6 species of herb] (Fig. 2). Many types of plant species (tree, shrub, herb, climber and grass) are present in the study area, but we recorded below

mentioned plants as medicines, as these plant species are very commonly utilized in Jalaun district as traditional medicine for gastro intestinal problems. Basically, these 25 plants are occurring everywhere in Jalaun district -The study area. (Table: 1).

**Table 1:** Enumeration of traditional medicinal plants species used by the local people of Jalaun district, Uttar Pradesh, India.

S. no.	Botanical name	Common name	Family	Local Use
1.1	<i>Acyranthes aspera</i> L.	latjeera	Amaranthaceae	10 ml juice of fresh leaves, every 3 <sup>rd</sup> hour in case of diarrhea. 5 gm powdered root mixed with equal amount of powdered black pepper, three times a day for gastric troubles.
1.2	<i>Anethum sowa</i> Kurz.	sowa	Apiaceae	2-5 dried leaves powder with a cup of water, twice a day to cure acidity.
1.3	<i>Annona Squamosa</i> Linn.	annanas	Annonaceae	To stop diarrhea 6-8 gm bark decoction, twice a day for couple of days.
1.4	<i>Asparagus racemosus</i> Willd.	satavri	Liliaceae	5-10 gm roots boiled with a cup of milk in the morning for a week, to get relief from dyspepsia.
1.5	<i>Azadirachta indica</i> A.Juss	neem	Meliaceae	Crushed bark stained in a cup of water, twice a day in case of abdominal pain. 4-5 fresh leaves eaten on empty stomach for stomach worms.
1.6	<i>Bauhinia variegata</i> Linn.	kachnar	Caesalpiniaceae	Juice of 5-10 crushed buds with a tsp. of honey, in liver complaints.
1.7	<i>Calatropis procera</i> Ait.	madar	Asclepiadaceae	8-10 gm root powder with black pepper, twice a day in spleen problems.
1.8	<i>Capsicum annum</i> Linn.	Laal mirch	Solanaceae	Few raw seeds twice a day for removal of stomach worms.
1.9	<i>Delbergia sisoo</i> Roxb.	sheesham	Papilionaceae	Juice of few fresh leaves twice a day, to cure jaundice.
1.10	<i>Euphorbia thymifolia</i> L.	Chhoti dudhi	Eubhorbiaceae	Crushed dried plant cooked with butter, twice a day for a week to cure piles.
1.11	<i>Ficus benghalensis</i> Linn.	bargad	Moraceae	Fresh burnt ashes of bark with water, to stop abdominal pain.
1.12	<i>Ficus carica</i> L.	anjir	Moraceae	In constipation by eating 2 dry fruits at night before sleep gives relief.
1.13	<i>Ficus racemosa</i> L.	gular	Moraceae	In dysentery, 5-6 gm powdered roots with a cup of hot water, twice daily for a week.
1.14	<i>Lycopersicum esculentum</i> Mill.	Tamatar	Solanaceae	1 tsp of tomato pulp with a glass of milk at 2-2 hours of interval in diarrhea.
1.15	<i>Mangifera indica</i> L.	aam	Meliaceae	Powder of dried seeds with a tsp of honey, to control diarrhea.
1.16	<i>Moringa oliefera</i> Lamk.	sehjana	Moringaceae	Fresh leaves filtrate with water, to cure constipation.
1.17	<i>Morus alba</i> L.	shehtoot	Moraceae	Fresh leaves juice with half cup of water, to get relief from indigestion.
1.18	<i>Murraya koengii</i> L.	Meetha neem	Rutaceae	Fresh leaves juice with some lime juice and honey, in case of dry vomiting. Few leaves with chopped ginger in the morning, to cure constipation.
1.19	<i>Nyctanthus arbortristis</i> L.	harsingaar	Oleaceae	Leaf juice with a tsp of honey and a pinch of salt, to prevent helminthic activity.
1.20	<i>Psidium guajava</i> L.	amrood	Myrtaceae	A cup of fruit juice, to stop diarrhea in children.
1.21	<i>Syzygium cumunii</i> L.	jamun	Myrtaceae	Powder of seeds with mango seed powder, to stop diarrhea.
1.22	<i>Tamarindus indica</i> L.	imli	Caesalpiniaceae	Boiled pulp with lime juice and honey, to cure bile disorders.
1.23	<i>Tagetes erecta</i> L.	genda	Asteraceae	For piles, 3-5 gm fresh leaves with 3-4 black pepper seeds are grinded and a tsp. of this mixture used daily in the morning on empty stomach.
1.24	<i>Terminalia arjuna</i> Roxb.	arjun	Combretaceae	15-20 gm decoction of bark, to cure diarrhea.
1.25	<i>Ziziphus jujuba</i> Mill.	ber	Rhamnaceae	Fruit pulp mixed with pinch of salt and chilli powder to get relief from indigestion. Dried seeds powder with a half cup of milk, to stop vomiting.

#### 4. Results & Discussion

In the study area, out of 25 plant species of 23 genera, *Ficus* genera is very common and mostly Moraceae, Caesalpiniaceae, Solanaceae, Meliaceae and Myrtaceae are very commonly found in investigated area. The plants were collected which have been employed to treat – gastro intestinal human ailments. Among them - herbs, shrubs, trees and climber have been noted. In the following enumeration details of identified herb plants with alphabetical order, followed by family name, local name, parts used, diseases and medicinal uses. According to value of medicinal importance and uses,

some are used as a whole plant, while in some, different portions of plants like leaves, bark, stem, flowers, fruits and seeds are used. Mostly some herbs are used a whole plant, for example *Euphorbia thymifolia*. (Fig. 3).

Common gastro intestinal problems of the district are diarrhea, stomach worms, liver disorders, constipation, indigestion etc (Fig. 4). The rural communities are very much prone to these ailments because of virtually non-existing health care, inadequate availability of pure drinking water, unhygienic attitude of the population due to illiteracy, proper sanitation etc.

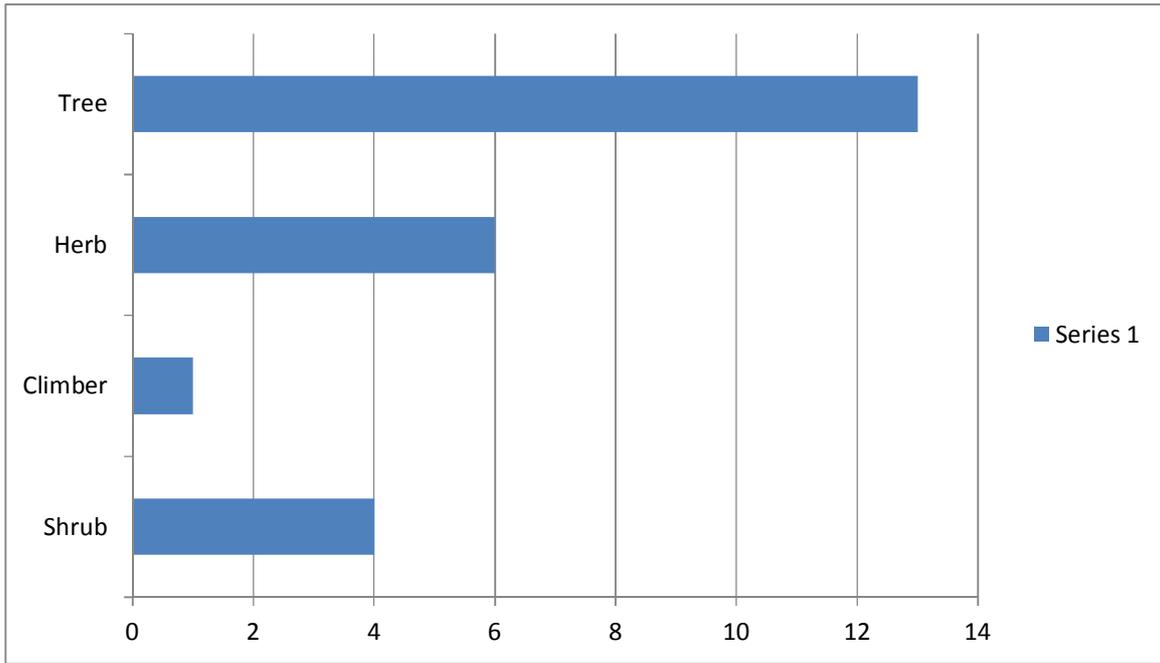


Fig: 2 Number of the natural habit of traditional medicinal plants.

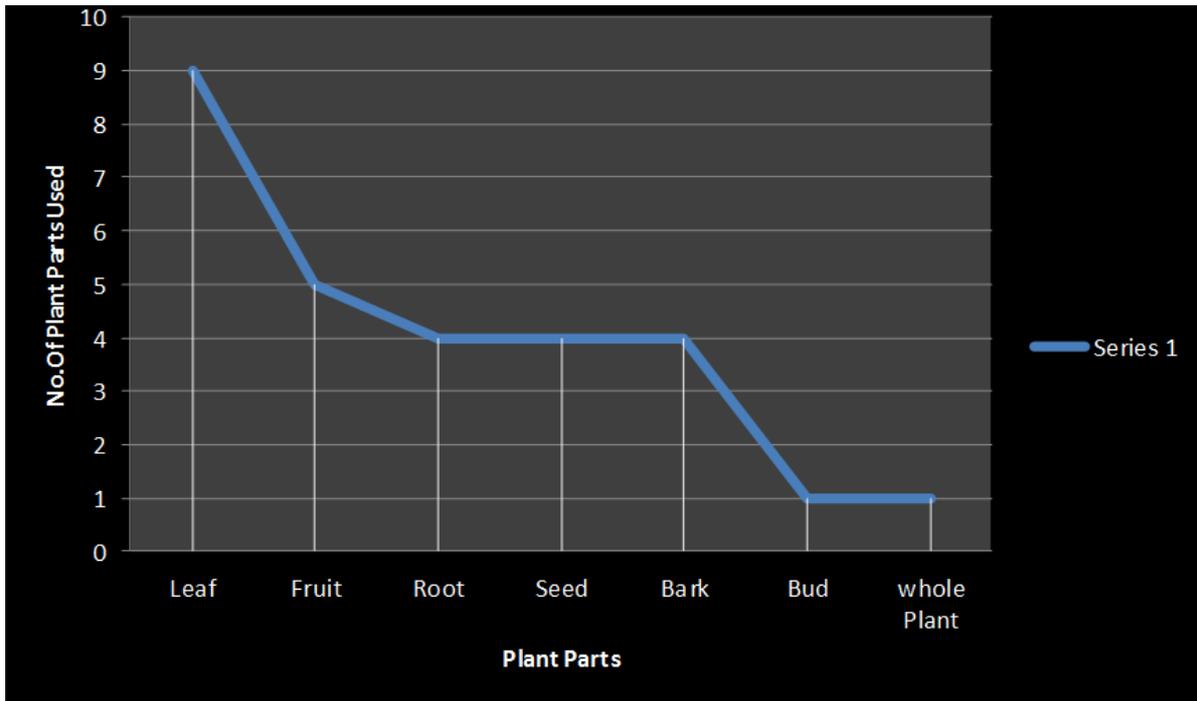
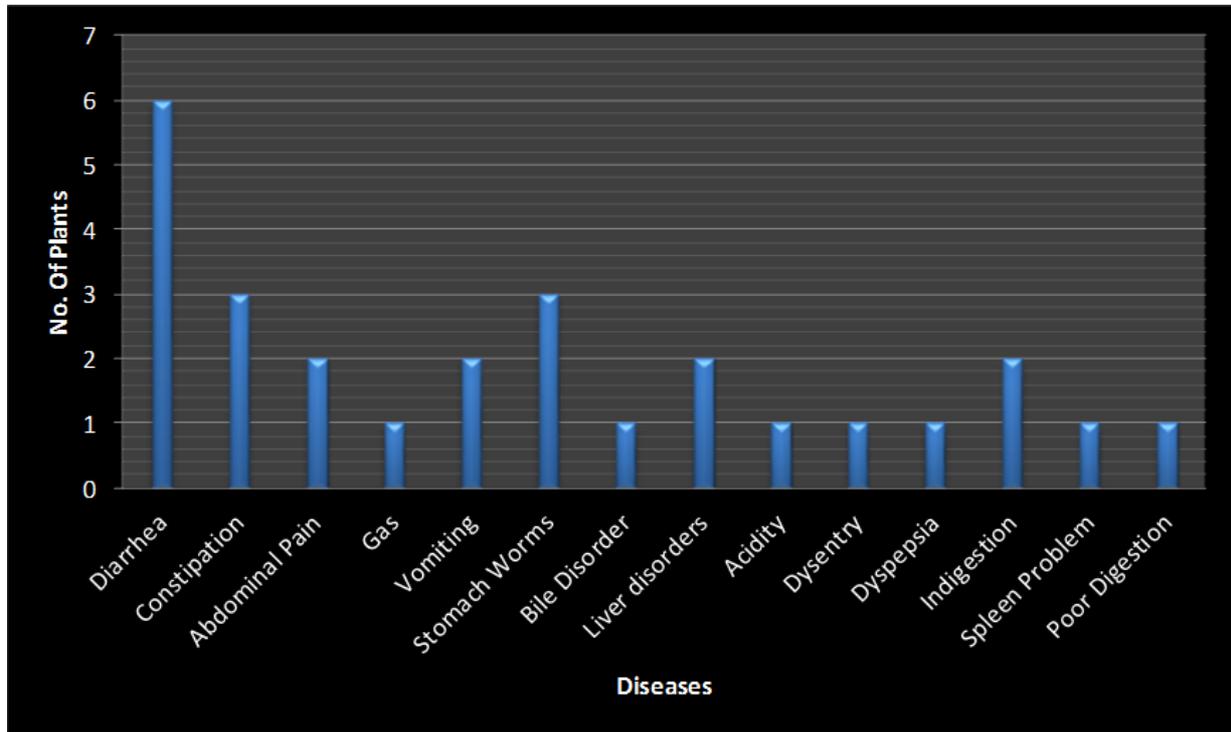


Fig 3: Utilization of plant parts of traditional medicinal plants in Jalaun district, region of Bundelkhand, Uttar Pradesh, India.



**Fig 4:** Traditional medicinal plants used in diseases.

## 5. Conclusion

The rural communities are very much prone to these ailments because of one of the prominent reasons as virtually non-existing health care installations. This forced the rural people of the study area to adopt their own traditional herbal medicine for their healthcare. Rural community's practitioners and older people of Jalaun district utilize a number of plant species grown around their homes for several medicinal uses. However, the younger generation by ignoring their ancestral traditional medicine is inclining towards the allopathic medicine. Since, several bioactive compounds are being extracted from traditional medicinal plants; they are in great demand in pharmaceutical industries. The phytochemical analysis and pharmacological investigations of traditional medicinally important plants with taking in view their proper conservation too, would help in developing novel drugs to treat chronic ailments [9].

## 6. Acknowledgement

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