

The Use of Traditional Plant Remedies in Hoshiarpur District of Punjab, India

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Article Info

Article History

Received : 19-05-2011
Revised : 03-08-2011
Accepted : 07-08-2011

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Summary

The present investigation was carried out in Hoshiarpur district of Punjab to understand the use of medicinal plant species for various curative purposes. The study was undertaken through semi structured questionnaire. About 110 plant species belonging to 97 genera and 51 families were documented. Altogether 40 types of ailments have been taken care of by using these plant species. Leaves were the most useful part as compared to other plant parts for the treatment of various ailments. This is followed by fruits and seeds. Most of the remedies were prepared as mixtures of plants/plant parts to cure diseases like diarrhoea, cough & cold, vomiting etc. Informants were randomly selected irrespective of their sex between the ages of 30-95years. During investigation, it has been observed that the trend of traditional plant remedies is declining gradually.

Key Words: Ailments, Hoshiarpur, Medicinal plants, Punjab, Traditional remedies

Introduction

Plants have played a great role in the growth and development of human race. First and the most important necessity for human life is the oxygen which is provided by the plants. Besides this, for day to day life, plants have offered food, fodder, fuel wood, timber, dyes, latex, gums, fibres, shelter, fruits etc. Additionally there are many plant species which have continuously been used by the natives for traditional medicines. In spite of ease of the modern medical facilities, people in the developing countries still prefer to use these remedial measures at first. The information gathered from the users is of upmost importance and can be utilised for the development of new drugs. This database will also provide opportunities for further scientific studies [2]. Traditional medicines are the basic and alternative remedies to treat various human as well as animal ailments. The knowledge about the medicinal significance of plant species have passed from one generation to the next through oral communication [8]. These were chiefly used by the old people. These medicines are popular because people think that these are easily available, cheaper and have no side effects [7].

Recently, a decline in the use of traditional plant remedies has been observed. The availability of medical facilities at the door step and upcoming of multispeciality hospitals in every part are the main cause for this decline. Moreover, people don't have much time to collect these species from the fields and then prepare the medicines. The number of plant species in their natural habitat is also decreasing. With technological advancement, new generations have little interest in these practices. Hence it appears that this knowledge is under severe threat and will vanish completely if not conserved [10]. The survey of traditional herbal medicines of the coastal diversity in Tuticorin district, Tamil Nadu, India suggested 41

plant species of medicinal interest. They were of the opinion that loss of coastal vegetation directly influenced (reduced) the indigenous knowledge [6]. So there is an urgent need to protect the coastal vegetation and to restore the indigenous knowledge. The medicinally important plants from the landslide prone areas of East Sikkim, India have been documented. The landslide eruptions are said to be the major cause for the vulnerability of medicinal plants [5]. About 48 species of ethno medicinal importance have been recorded from Buldhana District of Maharashtra (India). This indigenous knowledge will be helpful in the designing of new drugs for the welfare of human being. Detailed investigations are required to check the effectiveness and toxicity of these medicines [1]. Correct identification of the species is very important and challenging. Utilisation of wrongly identified plant species may cause harm. Now a days there are only few takers of these traditional medicines, thereby number of traditional healers has reduced to minimum. Keeping this in view, the present study was carried out to document the traditional medicinal plant knowledge from the area under investigation.

Materials and Methods

District Hoshiarpur is sub-mountainous. The surrounding districts are Jalandhar, Kapurthala, Gurdaspur in Punjab and Kangra and Una of Himachal Pradesh. The district is spread in an area of 3,365 km² with a population of 14, 78, 045 persons as per 2001 census. Around 80% of the population lives in the rural areas of the district. Ten villages were selected randomly for documentation of the traditional medicinal plants. Ten people were selected from each village irrespective of their age and sex. In this way, total of 100 persons were contacted for present study. The information was collected using a semi-

structured questionnaire. Data was collected for the name of plant species used for treatment, parts used, disease cured, local name, mode of preparation of particular medicines, mode of administration, plant habit etc. The interviews were preferably conducted in local language for the convenience of the respondents. Field visits were conducted along with the local residents to document the availability of the plant species in that area. The plants were photographed in their natural habitat. Enlisted plant species were then categorized into their respective genera and families to understand the diversity of flora. The data was analyzed for number of species that can be used for the treatment of a particular disease and to check the number of diseases that can be cured by using a single species.

Results and Discussion

During present investigation, a survey was conducted in the district Hoshiarpur to study the use of traditional plant remedies by the natives. Information was collected from 100 respondents comprising 48 men and 52 women. Forty nine informants were under 50 years of age, 47 were 51-75 years old and only 4 persons were above 75 years (Table 1). They all were having different qualifications and some of them were uneducated. Profession wise they were farmers, employed, retiree, etc. It has been observed that traditional knowledge is related to the age and sex of an individual. Generally old age people have much in their mind for traditional medicinal plants which may be due to their personal experience and interaction with the plants but male members above 50 year of age know more about the traditional plant medicines than other age groups and sex. This may be because of their active involvement in trade related activities especially agriculture. A survey conducted in Tamil Nadu suggested that old age people have more traditional knowledge about medicinal plants as compared to young people [4]. This corroborated our results. However, a study conducted in Nuoru, Italy shows that women prove to be the main upholder of traditional knowledge [10]. This is not corresponding to our findings and may be due to cultural variations of the two places.

The present investigation resulted in the documentation of 110 medicinal plant species belonging to 97 genera & 51 families (Fig.1). Majority of the species are herbs 57 followed by trees 27, shrubs 16 and climbers 10 (Fig.2). Members of the family Fabaceae (9 sp.) are dominating as traditional remedies followed by Solanaceae (6 sp.), Apiaceae, Euphorbiaceae, Poaceae and Rutaceae (5 species each, Table 2). These species are being used in the treatment of about 40 ailments. Maximum numbers of species (30) are being used for the treatment of gastrointestinal disorders such as indigestion,

diarrhea, constipation etc. This is followed by skin problems for which 22 species are available. Eighteen (18) plant species can be used as anti-diabetic. At least 15 plant species are there to cure cough and cold (Table-3). Each plant or its individual parts have their own significance in traditional remedies. The most commonly used plant part is leaf, 42 species followed by fruits 27 species, seeds 25 species etc. (Fig.3). Similar study was conducted in Kapurthala District of Punjab in which 60 plant species were reported to cure 30 ailments [9]. It shows that the natives of the present study areas are using more plant species. The availability of plant species may be one of the reasons for this difference in use of traditional plant remedies. Recently a similar survey was conducted in South Western Himachal Pradesh, India and a total of 98 plant species were recorded to be of multiple use. Around 70% of these species were listed to be of medicinal importance [3].

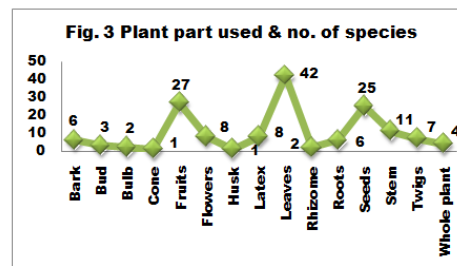
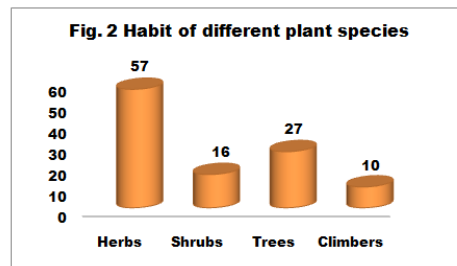
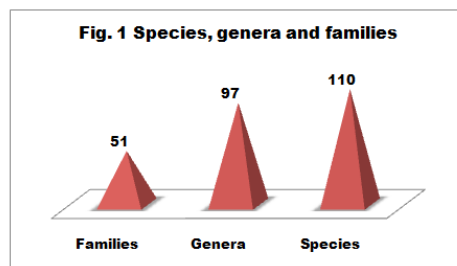


Table 1. Demographic data of the interviewed persons

AGE	
<50yrs	49
51-75	47
>75	04
SEX	
Men	48
Women	52
EDUCATION	
Above matriculation	14
Matriculation	23

Under matriculation	37
Uneducated	26
OCCUPATION	
Employed	09
Farmers	27
Housewives	45
Retiree	07
Others	12

Table 2. Family wise distribution of plant species

Sr. No.	Family	No. of Species	Sr. No.	Family	No. of Species
1	Acanthaceae	1	27	Malvaceae	3
2	Amaranthaceae	2	28	Meliaceae	2
3	Anacardiaceae	1	29	Menispermaceae	2
4	Apiaceae	5	30	Moraceae	2
5	Apocynaceae	1	31	Moringaceae	1
6	Asclepidaceae	1	32	Musaceae	1
7	Asteraceae	1	33	Myrtaceae	4
8	Boraginaceae	2	34	Nyctaginaceae	1
9	Brassicaceae	4	35	Oxalidaceae	1
10	Cactaceae	1	36	Papaveraceae	3
11	Caesalpinaceae	1	37	Pinaceae	1
12	Cannabinaceae	1	38	Piperaceae	1
13	Capparidaceae	1	39	Plantaginaceae	1
14	Caricaceae	1	40	Poaceae	5
15	Chenopodiaceae	2	41	Punicaceae	1
16	Combretaceae	3	42	Rhamnaceae	1
17	Convolvulaceae	2	43	Rosaceae	2
18	Crassulaceae	1	44	Rutaceae	5
19	Cucurbitaceae	4	45	Sapindaceae	1
20	Euphorbiaceae	5	46	Solanaceae	6
21	Fabaceae	9	47	Theaceae	1
22	Lamiaceae	3	48	Verbenaceae	1
23	Lauraceae	1	49	Violaceae	1
24	Liliaceae	4	50	Zingiberaceae	3
25	Linaceae	1	51	Zygophyllaceae	1
26	Lythraceae	1			

Table 3. Number of species used against a particular disease.

Sr. No.	Disease(s)	No. of Species	Sr. No.	Disease(s)	No. of Species
1	Allergies	10	21	Fever	11
2	Anaemia	5	22	Gastric problems	15
3	Anthelmintic	3	23	Gynaecological problems	6
4	Asthma	4	24	Hair problems	6
5	Back ache	7	25	Headache	5
6	Body ache	6	26	Heart problems	5
7	Burn	5	27	Internal injury	3
8	Chicken pox	2	28	Jaundice	11
9	Cholera	1	29	Joint pain	13
10	Constipation	9	30	Kidney stone	5
11	Cough/Cold	15	31	Malaria	1
12	Dental problems	11	32	Mouth ulcer	4
13	Diabetes	18	33	Piles	9
14	Diarrhoea	12	34	Polio	1
15	Dog bite	2	35	Skin problems	16
16	Dysentery	3	36	Snake/ Scorpion bite	6
17	Ear problems	6	37	Stomach ulcer	1
18	Epilepsy	1	38	Tuberculosis	1
19	Eye problems	9	39	Typhoid	7
20	Feet swelling	4	40	Urinary problems	1

Table 4. Plants species used in traditional medicines.

<p><i>Abelmoschus esculentus</i> L. Family : Malvaceae Local name: Bhindi Part used: Fruits & seeds. Habit: Herb Uses: Body-ache, dental problems, joint pain</p>	<p><i>Albizia lebbbeck</i> Benth. Family: Fabaceae Local name: Sirin Part used: Bark & leaves. Habit: Tree Uses: Diabetes & foot rotting in cattle's.</p>
<p><i>Acacia catechu</i> Willd. Family: Fabaceae Local name: Katha Part used: Bark, leaves & twigs. Habit: Tree Uses: Bone fracture, diabetes, skin problems</p>	<p><i>Allium cepa</i> L. Family: Liliaceae Local name: Pyaz Part used: Bulb Habit: Herb Uses: Carminative, cholera, diarrhoea, snake bite, stomach-ache & wasp cut.</p>
<p><i>Acacia nilotica</i> L. Family: Fabaceae Local name: Kikar Part used: Bark, pod & twigs. Habit: Tree Uses: Dental problems & diabetes</p>	<p><i>Allium sativum</i> L. Family: Liliaceae Local name: Lahsun Part used: Bulb Habit: Herb Uses: Backache, diabetes, ear problems, heart problems, joint pain, skin problems.</p>
<p><i>Achyranthes aspera</i> L. Family: Amaranthaceae Local name: Puth kanda Part used: Leaves, roots, seeds & stem. Habit: Herb Uses: Animal indigestion, cough, backache, gynaecological problems, jaundice & piles.</p>	<p><i>Aloe vera</i> Mill. Family: Liliaceae Local name: Kuwar Part used: Latex & leaves. Habit: Herb Uses: Backache, blood purifier, hair problems, jaundice, joint pain & skin problems.</p>
<p><i>Adathoda vesica</i> Nees. Family: Acanthaceae Local name: Kali basuti Part used: Flowers, leaves & whole plant. Habit: Shrub Uses: Cold, cough, fever & wound.</p>	<p><i>Amaranthus viridis</i> L. Family: Amaranthaceae Local name: Chulai Part used: Leaves & Stem. Habit: Herb Uses: Cold & cough.</p>
<p><i>Aegle marmelos</i> Correa Family: Rutaceae Local name: Bel Part used: Fruits & leaves. Habit: Tree Uses: Coolant, diarrhoea, dysentery & indigestion.</p>	<p><i>Anethum graveolens</i> L. Family: Apiaceae Local name: Sowa Part used: Seeds Habit: Herb Uses: Animal indigestion</p>
<p><i>Arachis hypogaea</i> L. Family: Fabaceae Local name: Mungfali Part used: Seeds Habit: Herb Uses: Diabetes.</p>	<p><i>Brassica rapa</i> L. Family: Brassicaceae Local name: Shalgam/Gonglu Part used: Roots Habit: Herb Uses: Blood pressure & feet swelling.</p>
<p><i>Arnebia nobilis</i> Reichb.f. Family: Boraginaceae Local name: Ratanjot Part used: Roots Habit: Herb Uses: Burn & ear problems.</p>	<p><i>Bryophyllum pinnatum</i> Kuntz. Family: Crassulaceae Local name: Pathar chatt Part used: Leaves Habit: Herb Uses: Blisters & wounds.</p>
<p><i>Argemone mexicana</i> L. Family: Papaveraceae Local name: Satyanashi Part used: Flower Habit: Herb Uses: Cattle fever.</p>	<p><i>Butea monosperma</i> Lam. Family: Fabaceae Local name: Plaash Part used: Flowers Habit: Tree Uses: Backache & urinary tract problems.</p>
<p><i>Asphodelus tenuifolius</i> Cav. Family: Liliaceae Local name: Piazzi Part used: Leaves</p>	<p><i>Calotropis gigantea</i> L. Family: Asclepiadaceae Local name: Akk Part used: Buds, flowers, fruits, latex & leaves.</p>

<p>Habit: Herb Uses: Skin problems.</p> <p><i>Azadirachta indica</i> A. Juss. Family: Meliaceae Local name: Neem Part used: Leaves, Twigs Habit: Tree Uses: Dental problems, diabetes & skin problems.</p> <p><i>Bambusa arundinacea</i> Willd. Family: Poaceae Local name: Baans Part used: Leaves Habit: Herb Uses: Animal cough.</p> <p><i>Brassica campestris</i> L. Family: Brassicaceae Local name: Sarson Part used: Seeds Habit: Herb Uses: Allergy, burn, ear ache, fracture & sprain.</p> <p><i>Cassia fistula</i> L. Family: Caesalpinaceae Local name: Amaltas Part used: Leaves & twigs Habit: Tree Uses: Constipation in cattle.</p> <p><i>Chenopodium album</i> L. Family: Chenopodiaceae Local name: Bathu Part used: Leaves & stem. Habit: Herb Uses: Cold, general weakness & purgative.</p> <p><i>Cicer arietinum</i> L. Family: Fabaceae Local name: Chanaa Part used: Seeds Habit: Herb Uses: Jaundice & skin diseases.</p> <p><i>Cinnamomum camphora</i> L. Family: Lauraceae Local name: Kapur Part used: Bark Habit: Tree Uses: Disinfectant in domestic animals, hair problem, skin diseases & wounds.</p> <p><i>Citrus auratifolia</i> Christm. Family: Rutaceae Local name: Nimbu Part used: Fruits Habit: Shrub Uses: Hair problems, skin diseases & vomiting.</p> <p><i>Citrus reticulata</i> Blanco. Family: Rutaceae Local name: Santara Part used: Fruits Habit: Shrub Uses: Carminative, coolant & Jaundice.</p>	<p>Habit: Shrub Uses: Blood infections in cattle's, dental problem, jaundice & skin problems.</p> <p><i>Cannabis sativa</i> L. Family: Cannabinaceae Local name: Bhaang Part used: Buds & leaves. Habit: Herb Uses: Diarrhoea in cattle's, skin problem & wasp sting.</p> <p><i>Capsicum annum</i> L. Family: Solanaceae Local name: Lalmirch Part used: Fruit Habit: Herb Uses: Dog bites & ear problems.</p> <p><i>Carica papaya</i> L. Family: Caricaceae Local name: Papeeta Part used: Fruits Habit: Shrub Uses: Anti-anaemic, diabetes, heart problems & jaundice.</p> <p><i>Citrus sinensis</i> L. Family: Rutaceae Local name: Mausami Part used: Fruits Habit: Shrub Uses: Coolant & jaundice.</p> <p><i>Coccinea grandis</i> Cogn. Family: Cucurbitaceae Local name: Kanduri Part used: Fruits Habit: Climber Uses: Diabetes.</p> <p><i>Cocculus hirsutus</i> L. Family: Menispermaceae Local name: Katori Part used: Leaves Habit: Climber Uses: Diabetes.</p> <p><i>Cordia myxa</i> Roxb. Family: Boraginaceae Local name: Lasura Part used: Latex Habit: Tree Uses: Skin diseases.</p> <p><i>Coriandrum sativum</i> L. Family: Apiaceae Local name: Dhania Part used: Leaves & seeds Habit: Herb Uses: Coolant, indigestion & piles.</p> <p><i>Crateva religiosa</i> Hook. f & Thoms. Family: Capparidaceae Local name: Barna Part used: Bark Habit: Tree Uses: Kidney stone.</p>
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***Croton oblongifolius* Roxb.**

Family: Euphorbiaceae
Local name: Jamalghota
Part used: Latex
Habit: Herb
Uses: Leucoderma & pimples.

***Cucumis sativus* L.**

Family: Cucurbitaceae
Local name: Kheera
Part used: Fruits
Habit: Climber
Uses: Coolant, diabetes, eye problems, piles & skin problems.

***Cucurbita pepo* L.**

Family: Cucurbitaceae
Local name: Loki
Part used: Fruits
Habit: Climber
Uses: Blood pressure, constipation, coolant, diabetes, jaundice & reduces weight.

***Curcuma longa* L.**

Family: Zingiberaceae
Local name: Haldi
Part used: Rhizomes
Habit: Herb
Uses: Blood purifier, body-ache, internal injury & skin problems.

***Cuscuta reflexa* Roxb.**

Family: Convolvulaceae
Local name: Amarbel
Part used: Whole plant
Habit: Parasitic climber
Uses: Internal injury, joint pain, polio, swellings & typhoid.

***Cynodon dactylon* (L.) Pers.**

Family: Poaceae
Local name: Khabal ghaas
Part used: Leaves & stem.
Habit: Creeper
Uses: Diarrhoea, heart problems.

***Eucalyptus globulus* Labill.**

Family: Myrtaceae
Local name: Safeda
Part used: Leaves
Habit: Tree
Uses: Cold & Cough.

***Eugenia caryophyllata* Wight.**

Family: Myrtaceae
Local name: Long
Part used: Bud
Habit: Tree
Uses: Cold, cough, dental problem, oil used for body massage & stomach-ache.

***Euphorbia hirta* L.**

Family: Euphorbiaceae
Local name: Dudhkhar
Part used: Latex & whole plant.
Habit: Herb
Uses: Piles & skin diseases.

***Dalbergia sissoo* Roxb.**

Family: Fabaceae
Local name: Tahli
Part used: Leaves, pod & twigs.
Habit: Tree
Uses: Dental problem, ear-ache, leucorrhoea & swellings.

***Datura stramonium* L.**

Family: Solanaceae
Local name: Dhatura
Part used: Leaves & seeds
Habit: Shrub
Uses: Asthma, cough, flatulence in cattle & wound.

***Daucus carota* L.**

Family: Apiaceae
Local name: Gajar
Part used: Roots & seeds
Habit: Herb
Uses: Anti-anaemic, eye tonic, heart problems, indigestion & menstruation problems.

***Eclipta alba* Hassk.**

Family: Asteraceae
Local name: Bring raj
Part used: Whole plant
Habit: Herb
Uses: Remove hair dandruff & lice.

***Elettaria cardamomum* (L.) Maton**

Family: Zingiberaceae
Local name: Elaichi
Part used: Fruits
Habit: Herb
Uses: Cold, cough, diarrhoea, fever, headache & stomach-ache.

***Emblica officinalis* Gaertn.**

Family: Euphorbiaceae
Local name: Amla
Part used: Fruits
Habit: Tree
Uses: Cough, hair tonic, indigestion, typhoid.

***Foeniculum vulgare* Mill.**

Family: Apiaceae
Local name: Saunf
Part used: Seeds
Habit: Herb
Uses: Carminative, cold, constipation, cough, diarrhoea, fever, indigestion & vomiting.

***Fumaria indica* (Hausskn.) Pugsley**

Family: Papaveraceae
Local name: Pitpapra
Part used: Whole plant
Habit: Herb
Uses: Allergy & itching.

***Glycyrrhiza glabra* L.**

Family: Fabaceae
Local name: Mulathi
Part used: Roots
Habit: Tree
Uses: Cough & throat pain.

***Euphorbia royleana* Boiss.**

Family: Euphorbiaceae
 Local name: Thor
 Part used: Latex & stem.
 Habit: Herb
 Uses: Asthma.

***Ficus bengalensis* L.**

Family: Moraceae
 Local name: Bohar
 Part used: Latex
 Habit: Tree
 Uses: Stomach ulcers & wounds.

***Ficus religiosa* L.**

Family: Moraceae
 Local name: Peepal
 Part used: Fruits, latex, leaves, roots & twigs.
 Habit: Tree
 Uses: Asthma, heart problems, menstruation irregularities, tuberculosis, typhoid.

***Lawsonia inermis* L.**

Family: Lythraceae
 Local name: Mehendi
 Part used: Leaves
 Habit: Shrub
 Uses: Burns & coolant.

***Lepidium sativum* L.**

Family: Brassicaceae
 Local name: Holon
 Part used: Leaves & stems.
 Habit: Herb
 Uses: Backache controls uric acid, diabetes & joint pain.

***Linum usitatissimum* L.**

Family: Linaceae
 Local name: Alsi
 Part used: Seeds
 Habit: Herb
 Uses: Bone fracture, diabetes, general tonic & joint pain.

***Lycopersicon esculentum* Mill.**

Family: Solanaceae
 Local name: Tamatar
 Part used: Fruits
 Habit: Herb
 Uses: Anthelmintic & for glowing skin.

***Malachra capitata* L.**

Family: Malvaceae
 Local name: Vilayati bhindi
 Part used: Fruits & seeds
 Habit: Herb
 Uses: Blood infection in cattle's, dental problem, joint pain & wounds.

***Mangifera indica* L.**

Family: Anacardiaceae
 Local name: Aamb
 Part used: Fruit & seeds
 Habit: Tree
 Uses: Blood purifier, diarrhoea & indigestion.

***Gossypium arboreum* L.**

Family: Malvaceae
 Local name: Kappas
 Part used: Fruit & seeds
 Habit: Shrub
 Uses: Dressings & Seed cake enhance lactation in animals.

***Hordeum vulgare* L.**

Family: Poaceae
 Local name: Jon
 Part used: Seeds
 Habit: Herb
 Uses: Coolant & cosmetic purposes.

***Ipomea carnea* Jacq.**

Family: Convolvulaceae
 Local name: Wilayati ak
 Part used: Buds, Flower & leaves.
 Habit: Shrub
 Uses: Blisters, Blood infection in cattle's, snake/scorpion bite & wounds.

***Melia Azadirachta* L.**

Family: Meliaceae
 Local name: Dhrek/Bakain
 Part used: Leaves & twigs.
 Habit: Tree
 Uses: Dental problems & skin problems.

***Mentha arvensis* L.**

Family: Lamiaceae
 Local name: Pudina
 Part used: Leaves
 Habit: Herb
 Uses: Carminative, coolant, diarrhoea, dysentery, indigestion, jaundice, stomach-ache & vomiting.

***Mirabilis jalapa* L.**

Family: Nyctaginaceae
 Local name: Gulabash
 Part used: Flowers & roots.
 Habit: Herb
 Uses: Joint pain.

***Momordica charantia* L.**

Family: Brassicaceae
 Local name: Karela
 Part used: Fruit & seeds
 Habit: Climber
 Uses: Blood purifier & Diabetes.

***Moringa oleifera* Lamk.**

Family: Moringaceae
 Local name: Soanjna
 Part used: Flowers & pods
 Habit: Tree
 Uses: Body pain, diabetes, indigestion & joint pain.

***Murraya koenigii* Spreng.**

Family: Rutaceae
 Local name: Karhi patta
 Part used: Leaves
 Habit: Shrub
 Uses: Blood purifier, glowing skin, stomach-ache & swelling.

Musa paradisiaca L.

Family: Musaceae
Local name: Kela
Part used: Fruits
Habit: Herb
Uses: Indigestion & jaundice.

Ocimum basilicum L.

Family: Lamiaceae
Local name: Niazbo
Part used: Leaves
Habit: Herb
Uses: Cough & fever.

Ocimum sanctum L.

Family: Lamiaceae
Local name: Tulsi
Part used: Leaves
Habit: Herb
Uses: Cough expectorant, fever & indigestion.

Opuntia dillenii Haw.

Family: Cactaceae
Local name: Chhittar thor
Part used: Fruits
Habit: Herb
Uses: Antianaemic.

Oxalis corniculata L.

Family: Oxalidaceae
Local name: Khatti buti
Part used: Leaves
Habit: Herb
Uses: Eye problems.

Papaver somniferum L.

Family: Papaveraceae
Local name: Khas khas
Part used: Seeds
Habit: Herb
Uses: Chickenpox.

Raphanus sativus L.

Family: Brassicaceae
Local name: Muli
Part used: Roots
Habit: Herb
Uses: Carminative, coolant, diabetes, Indigestion & jaundice.

Ricinus communis L.

Family: Euphorbiaceae
Local name: Rind
Part used: Leaves
Habit: Shrub
Uses: Blisters, joint pain, swelling & wounds.

Rosa alba L.

Family: Rosaceae
Local name: Gulab
Part used: Flowers
Habit: Shrub
Uses: Constipation, cosmetic purpose & remove dark circle around eyes.

Piper nigrum L.

Family: Piperaceae
Local name: Kaali mirch
Part used: Seeds
Habit: Herb
Uses: Allergy, blood infection in cattle's, carminative, dental problem & indigestion.

Pinus roxburghii Sarg.

Family: Pinaceae
Local name: Chile
Part used: Cones
Habit: Tree
Uses: Wounds.

Plantago ovata Forsk.

Family: Plantaginaceae
Local name: Isabgol
Part used: Husk
Habit: Herb
Uses: Constipation, coolant, diarrhoea & headache.

Prunus persica (L.) Batsch.

Family: Rosaceae
Local name: Aadoo
Part used: Fruit & leaves
Habit: Shrub
Uses: Anthelmintic.

Psidium guajava Linn.

Family: Myrtaceae
Local name: Amrood
Part used: Fruits & leaves
Habit: Tree
Uses: Anthelmintic, constipation, cough, diabetes & diarrhoea.

Punica granatum L.

Family: Punicaceae
Local name: Anaar
Part used: Fruit & seeds
Habit: Shrub
Uses: Antianaemic.

Solanum tuberosum L.

Family: Solanaceae
Local name: Alu
Part used: Stem
Habit: Herb
Uses: Burns & eye problems.

Spinacia oleracea L.

Family: Chenopodiaceae
Local name: Palak
Part used: Leaves
Habit: Herb
Uses: Antianaemic, constipation, diabetes, purgative, to check calcium & iron deficiency.

Syzygium cumini L.

Family: Myrtaceae
Local name: Jamun
Part used: Fruits & seeds
Habit: Tree
Uses: Diabetes & purgative.

***Saccharum officinarum* L.**

Family: Poaceae
 Local name: Ganna
 Part used: Stem
 Habit: Herb
 Uses: Indigestion, jaundice & kidney stone.

***Sapindus mukorossi* Gaertn.**

Family: Sapindaceae
 Local name: Reetha
 Part used: Fruits
 Habit: Tree
 Uses: Hair tonic.

***Solanum nigrum* L.**

Family: Solanaceae
 Local name: Bhambola
 Part used: Unripe fruits & leaves
 Habit: Herb
 Uses: Antianaemic, controls uric acid, heart problem, protect from cold & swelling.

***Solanum xanthocarpum* Schrad. & Wendl.**

Family: Solanaceae
 Local name: Kandyali
 Part used: Fruits
 Habit: Herb
 Uses: Internal injury, wounds.

***Thea sinensis* L.**

Family: Theaceae
 Local name: Cha
 Part used: Leaves
 Habit: Shrub
 Uses: Analgesic, cold, cough, Headache & piles.

***Tinospora cordifolia* (Willd.) Miers ex Hook. F. & Thoms.]**

Family: Menispermaceae
 Local name: Giloe
 Part used: Leaves & stem.
 Habit: Climber
 Uses: Backache, diarrhoea, malaria, swelling & typhoid.

***Trachyspermum ammi* (L.) Sprague ex Turrill**

Family: Apiaceae
 Local name: Ajwain
 Part used: Seeds
 Habit: Herb
 Uses: Carminative, cold, cough, diarrhoea, indigestion, Stomach-ache & vomiting.

***Tribulus terrestris* L.**

Family: Zygophyllaceae
 Local name: Bhakhra
 Part used: Fruit & seeds
 Habit: Herb
 Uses: Arthritis, Backache, Protect from cold & rheumatism.

***Trigonella foenum graecum* L.**

Family: Fabaceae
 Local name: Methi
 Part used: Seeds
 Habit: Herb
 Uses: Carminative, diabetes & joint pain.

***Terminalia arjuna* (Roxb.) W. & A.**

Family: Combretaceae
 Local name: Arjun
 Part used: Bark & leaves
 Habit: Tree
 Uses: Asthma & diabetes.

***Terminalia cattapa* L.**

Family: Combretaceae
 Local name: Badaam
 Part used: Seeds
 Habit: Tree
 Uses: Brain tonic.

***Terminalia chebula* Retz.**

Family: Combretaceae
 Local name: Harar
 Part used: Fruits
 Habit: Tree
 Uses: Constipation controls uric acid, diarrhoea, eye & hair problem & fever.

***Vinca rosea* L.**

Family: Apocynaceae
 Local name: Sadabahar
 Part used: Flowers & leaves.
 Habit: Herb
 Uses: Indigestion of cattle & Wounds.

***Viola pilosa* Blume.**

Family: Violaceae
 Local name: Banaksha
 Part used: Flowers & Leaves.
 Habit: Herb
 Uses: Chest pain, cold, cough, fever & Cough & cold, chest pain, fever, stomachache.

***Vitex negundo* L.**

Family: Verbenaceae
 Local name: Banna
 Part used: Leaves & twigs
 Habit: Tree
 Uses: Allergy, antibiotic, indigestion, stomach-ache & wounds.

***Zea mays* L.**

Family: Poaceae
 Local name: Makai
 Part used: Seeds
 Habit: Herb
 Uses: Jaundice.

***Zingiber officinalis* Rosc.**

Family: Zingiberaceae
 Local name: Adhrak
 Part used: Rhizomes
 Habit: Herb
 Uses: Analgesic, body ache, carminative, chest pain, constipation, controls cholesterol, cough, headache & joint pain.

***Zizyphus jujuba* Lamk.**

Family: Rhamnaceae
 Local name: Beri
 Part used: Bark & leaves
 Habit: Tree
 Uses: Blood purifier, hair problem, foot rotting in cattle's & swelling.

People responded well to our queries and even they helped lot in the identification of species. Some of the respondents possess much knowledge about the plant species of medicinal importance. Twenty two plant species have not been much exploited as traditional medicines. Some others have been over-exploited. This shows that how invariably this precious knowledge is distributed amongst the natives. Data has also been collected for some of the serious diseases like cancer, AIDS and diabetes. Regarding cancer and AIDS, some people were of the opinion that these are incurable but most of them have misconception about the curability of diabetes. Some of the most commonly used anti-diabetic medicinal plant species include *Momordica charantia*, *Syzygium cumini*, *Azadirachta indica* and *Aloe vera*. Medicinal significance of each and every species has been discussed in detail (Table 4). Despite their high medicinal importance, the use of traditional medicinal plants is declining day by day which may be because of the availability of the fast relieving medicines in the market. There are many plant species which were used by the natives in earlier times but are not in use today. This may be due to lack of knowledge of their utility as traditional medicinal plants.

Conclusion

The present investigation reveals that the practice of traditional plant medicines is still alive in the area under investigation. However, this indigenous knowledge is vanishing rapidly. Our young generations are not much in favour of these practices because of non-availability of some important medicinal plants, unspecified doses and unknown side effects. Therefore, it is the need of the hour to conserve this indigenous and precious knowledge about the uses of medicinal plant remedies and also to pass on this to our present and future generations effectively.

Acknowledgement

We would like to thank all the informants who responded to our queries. The authors are also grateful to University Grant Commission (UGC) for providing financial assistance to carry out this investigation.

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