

INDIGENOUS KNOWLEDGE OF SELECTED MEDICINAL WILD PLANTS OF DISTRICT ATTOCK, PUNJAB, PAKISTAN

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Abstract

The present study includes indigenous knowledge of selected medicinal wild plants of District Attock. This study is mainly focused on traditional uses of plants of the area used by local people. For each species the information is provided regarding scientific names, local name, family name, plant part used and medicinal importance. A total of 49 species belonging to 29 families are reported from the study area. During the course of study 10 Hakims (Specialists) and about 80 local people were interviewed.

Introduction

Indigenous knowledge is as old as human civilization but the term ethnobotany was first coined by an American botanist, John Harshburger (1896), to study the plants used by the primitive and aboriginal people. Since then it has been defined as the traditional knowledge of indigenous community, about surrounding plant diversity and as the study of how the people of particular and region make use of indigenous plant.

The traditional practitioners in many parts of the world define life as the union of body, sense, mind and soul and describe positive health as the blending of physical, mental, social, moral and spiritual welfare. This gives new dimensions to the system of health care. Our Holy Prophet (Peace Be Upon Him) used certain herbs for the cure of various diseases (Baquar, 1989).

Herbs are remarkable plants, with a rich and fascinating history that dates back thousands of years. The first official records of medicinal plants were set down on Papyrus (Anna, 1993). Now the herbal medicine is a recognized system of medicine throughout the world. For centuries, plants with medicinal properties have been utilized successfully in the treatment of ailments of varying degrees of severity. The Greek physician, Hippocrates, was quoted as saying in 377 BC, "let medicine be your food and food your medicine" (Bartram, 1995).

With the comparatively recent introduction of orthodox medicine, faith in herbal medicine has sadly declined. The convenience, which the pharmaceutical industry offered, along with the fast acting, powerful, man made drugs available, provided an attractive and revered alternative. Unfortunately, the realization that many of these new wonder drugs were actually derived and synthesized from medicinal plants seems to have been ignored. Today many third world countries are very dependent on plant based remedies, while herbs have provided western medicine with the active ingredients of some of its most important drugs. A simple illustration of synthetic drug versus plant extract is from the common foxglove (*Digitalis purpurea*) are derived the heart drugs digoxin and digitoxin. Similarly from opium poppy (*Papaver somniferum*) the valuable painkillers, morphine and codeine are extracted (Chevallier, 1998).

Pakistan has a varied climate and is quite rich in medicinal herbs, though scattered over a large area. These medicinal plants have been used by Hakims and in folklore medicine where 80% of the population lives in villages and rural areas and are mostly dependent in Unani System of medicine (Ikram & Hussain, 1978).

There is a dire need to carryout phytochemical and pharmacological work of such useful plants and scientifically prove and substantiate the observations of Hakims and rural people. Keeping in view the significance of indigenous knowledge of folk medicine and ethnobotanical studies to discover new and potential sources of drug plants, it is considered necessary to collect information about the uses of medicinal plants by people of District Attock because the purpose of present work is to record this information for wider circulation. This information will give significant contribution, towards the understanding for our plant wealth of the country.

Materials and Methods

Before starting the research work on indigenous use of important medicinal species of the area a general information about the area was collected from the local people. About 80 local informants including both males and females were interviewed. Information on demographic (age, gender) and ethnobotanical information (medicinal plants and their uses) was gathered from each site by using a semi-structured and close ended questionnaire containing questions such as (1) Do you know the medicinal plants in your local area; if yes, name them; (2) What is the use of these medicinal plants? How do you use them (as a spice or a medicine) and for which ailment? (3) Which part of these plants is used for medicinal purposes? (4) When do you collect these plants? and (5) Do you collect them for your personal use or for selling them to pharmaceutical companies?

Plant collection and data recording for traditional / indigenous uses of these plants in various localities was primarily done by carrying the collected specimens to local people. The informants were asked question in Urdu (national language of Pakistan) regarding traditional uses of plants their vernacular names, distribution, morphology and economical importance. Collected plant material has been dried, pressed, preserved (poisoned), accessioned , identified and finally deposited in the herbarium of the department of plant sciences, Quaid-i-Azam University Islamabad, Pakistan. Identification of the field collected medicinal plants was done by confirming them by the respondents and comparing them with those in the various Herbaria of Pakistan. Necessary literature has also been collected from different libraries e.g., Pakistan Museum of Natural History, Islamabad (PMNH), World Wide Fund for Nature (WWF), National Herbarium, National Agricultural Research Centre, (NARC) Islamabad.

Results

The present study includes indigenous knowledge of selected medicinal wild plants of district Attock. A total of 49 species belonging to 29 families are reported from the study area. This study is mainly focused on traditional uses of plants of the area used by the local people. During the study 10 Hakims and about 80 local people were interviewed.

Discussion

In the context of the present day scenario of methods of ailment cures, it is very important to find some alternate medicine system for the treatment of ever changing nature of diseases, especially for those which do not need prolong treatment and may be cured by use of herbal products (Baquar, 1989). In this connection indigenous knowledge play a reasonably good role in the treatment of not only everyday problems but also for the complex diseases to some extent. Ethnobotany is perhaps the most appropriate approach to study natural resources of indigenous people and the system of medicine specific to them although there is no provision anywhere for the protection of knowledge rights of native people (Martin, 1995) and the knowledge gained from some specific areas proved to be of great importance to the world but of little or no benefit to the local people, but still the fact remains as it is, that the indigenous systems of cure do posses a lot of applications and acceptance in masses. In our study area i.e., district Attock, poverty is a major issue, people are usually dependant on agricultural activities which are restricted to some patches or on rain waters. Due to un-availability of better health facilities and higher prices of allopathic medicines people are very much dependent on the locals' herbal medicines (Qureshi *et al.*, 2006). The diversity of medicinally important plants is important in the area as the area of Attock is semiarid but fertile in patches where streams and surface drains through the mountains, run across the fields and waste lands giving appropriate conditions for growth of wild and cultivated plants. These wet patches are having xerophytic indigenous flora (Anon., 1989).

Edible wild food plants often helps in preventing starvation during drought, while economically important species provide a buffer against unemployment during cyclical economic depressions. Despite the immense importance of these plant resources, their value is rarely taken into account specially; in land use planning, but in fact they are destroyed and lost forever from the area. Same is the case in our area and many parts of the country that the medicinally and economically important species are harvested unsustainably and hence destroying the biodiversity and loss of species from the area (Anthony, 2001).

There are many medicinal plants which are growing naturally in different seasons of year in this area. The benefits of about 49 wild medicinal plants were studied and described by local people and habitants. All these species are the main source of medicine and other requirements of the local communities, because of the shortage of trained manpower and resources, health authorities in Pakistan are not able to provide services to greater part of the rural population. Therefore, the wide spread use of folk herbal remedies appears to be not only a case of preference but also a situation without other native choices. Such a system of medical treatment on which the majority of the population has been relying upon for generations with considerable success, should not be overlooked for further medical investigation, specially on those plants which have not been looked at for medical research, although the same have been in use by local inhabitants over hundreds of years. So the indigenous knowledge, accordingly, continue to provide the building blocks for development in rural communities because the medicinal plants are the precious economic resources of the area and wild are used in the crude form locally or collected and transported into the drug markets inside the area and country.

S.No.	Plant name	Family	Accession No.	Voucher No.	Collection area	Collectors name	Collection date
1.	<i>Trianthema portulacastrum</i> L.	Aizoaceae	37452	112	Attock Distt	M. Shah and Ayaz	24-05-1976
2.	<i>Achyranthes aspera</i> L.	Amaranthaceae	114464	58	Wah Garden Attock	Zawar, Wali and Saeed	14-06-1979
3.	<i>Amaranthus viridis</i> L.	Amaranthaceae	75751	456	Wah Garden Attock	Nisar and Afzal	08-01-1978
4.	<i>Ageratum houstonianum</i> Mill.	Asteraceae	91942	71	Attock	M. Arif and Nisar	06-07-1975
5.	<i>Calendula arvensis</i> L.	Asteraceae	100941	2252	Attock	Shahzad Iqbal and Nisar	17-03-1978
6.	<i>Cichorium intybus</i> L.	Asteraceae	35927	18	Attock	Ghulam Farooq and Ayaz	28-06-1976
7.	<i>Helianthus annuus</i> L.	Asteraceae	16173	231	Hazro Attock	Manzoor and Javed	12-05-1978
8.	<i>Silybum marianum</i> Gaertn.	Asteraceae	151288	31	Fateh Jang Attock	Iqbal Dar and Manzoor	10-04-1975
9.	<i>Xanthium strumarium</i> Patrln.	Asteraceae	75244	458	Wah Garden Attock	Nisar and Afzal	08-01-1978
10.	<i>Anethum graveolens</i> L.	Apiaceae	35082	44	Hazro Attock	Arif and Lal Shah	20-04-1976
11.	<i>Trachyspermum ammi</i> L. Sprague	Apiaceae	17162	426	Dhok Pathan Attock	Javed and Manzoor	11-03-1979
12.	<i>Calortopsis procera</i> (Willd.) R. Br.	Aselepiadiaceae	13552	912	Hattian near Attock	Manzoor Hussain and Javed Akhter	13-04-1975
13.	<i>Capsella bursa-pastoris</i> (L.) Medic.	Brassicaceae	11235	81	Attock	M.A. Siddiqui	06-04-1979
14.	<i>Sisymbrium irio</i> L.	Brassicaceae	17883	63	Hazro Attock	Iqbal Dar and Anjum	12-04-1977
15.	<i>Canabis sativa</i> L.	Canabinaceae	73883	85	Attock	Manzoor and Nisar	08-08-1977
16.	<i>Capparis spinosa</i> L.	Capparidaceae	36411	291	Hattian Attock	M. Shah and Nisar	07-05-1981
17.	<i>Silene conoidea</i> L.	Caryophyllaceae	76571	55	Burhan Attock	M. Shah and Dilawar	10-03-1977
18.	<i>Stellaria media</i> (L.) Cyr.	Caryophyllaceae	17201	07	Attock	Iqbal Dar, M. Arif and Lal Hussain	21-03-1976
19.	<i>Chenopodium album</i> L.	Chenopodiaceae	85440	354	Attock	Shahzad Iqbal and Nisar	31-03-1978
20.	<i>Convolvulus arvensis</i> L.	Convolvulaceae	89768	233	Dhok Pathan Attock	Shahzad Iqbal and Maqsood	30-03-1978
21.	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	45769	56	Dhok Gedan near Fateh Jang (Attock)	Shahzad, Shaukat, Mir Ajab abd Saboor	12-02-1977
22.	<i>Cyperus rotundus</i> L.	Cyperaceae	72636	50	Burhan Attock	Ayaz Abbassi and Nisar Ahmad	25-03-1978
23.	<i>Euphorbia helioscopia</i> L.	Euphorbiaceae	46243	232	Maryala Attock	Shahzad and Dilawar	10-03-1977
24.	<i>Euphorbia hirta</i> L.	Euphorbiaceae	68710	161	Attock	Nisar and Ayaz	20-09-1977
25.	<i>Ricinus communis</i> L.	Euphorbiaceae	46242	210	Hattian to Kamra	Shahzad and Dilawar	09-03-1977
26.	<i>Fumaria indica</i> (Hausskn.) Pugsley	Fumariaceae	4250	385	Attock	Manzoor Hussain and Javed Akhter	25-03-1975

(Cont'd.)

S.No.	Plant name	Family	Accession No.	Voucher No.	Collection area	Collectors name	Collection date
27.	<i>Mentha piperata</i> L.	Lamiaceae	05370	1218	Hattian Attock	Javed Akhter and Manzoor Hussain	14-05-1975
28.	<i>Mentha longifolia</i> (L.) Huds.	Lamiaceae	05382	92	Attock	M. Arif and Nisar	07-08-1975
29.	<i>Salvia moorcroftiana</i> Wall. ex Benth.	Lamiaceae	51983	921	Hazro Attock	Muqarrab Shah and Ayaz Abbassi	26-04-1977
30.	<i>Acacia nilotica</i> (L.) Del.	Mimosaceae	80230	2098	Hazro to Hattian (Attock)	Nisar and Javed Akhter	12-03-1978
31.	<i>Acacia modesta</i> Wall.	Mimosaceae	49124	401	Lawrenspur Attock	M. Shah Na Ayaz	08-04-1977
32.	<i>Ficus palmata</i> Forssk.	Moraceae	83299	1732	Kas grave yard Sarwala (Attock)	Shahzad Iqbal and Nisar Abbassi	07-03-1978
33.	<i>Mirabilis jalapa</i> L.	Nyctaginaceae	25311	86	Hattian	Iqbal Dar and Javed Akhter	02-05-1976
34.	<i>Oxalis corniculata</i> L.	Oxalidaceae	30712	712	Hazro to Attock	Nisar and Lal Hussain	11-03-1981
35.	<i>Medicago sativa</i> L.	Papilionaceae	06897	430	Campbellpur	Iqbal Dar, Anjum and Amin	23-04-1975
36.	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	100358	2654	Pindigheb Attock	Shahzad, Iqbal and Nisar	23-03-1978
37.	<i>Avena sativa</i> L.	Poaceae	44437	680	Attock	Mir Ajab and Manzoor	09-03-1977
38.	<i>Polygonum plebium</i> R.Br.	Polygonaceae	9009	904	Burhan Attock	M. Arif and Mehmood	23-04-1975
39.	<i>Rumex dentatus</i> L.	Polygonaceae	82396	255	Dhok Pathan Attock	Shahzad Iqbal and Maqsood	30-03-1978
40.	<i>Zizyphus nummularia</i> (Burm.f.) Wight & Arn.	Rhamnaceae	104076	411	Hattian Attock	M. Shah and Nisar	25-04-1978
41.	<i>Galium aparine</i> L.	Rubiaceae	10757	548	Attock	Anjum Amin, M. Sha and Manzoor	26-06-1975
42.	<i>Verbascum thapsus</i> L.	Scrophulariaceae	18362	735	Havelian Attock	M.N. Chaudhry, M.A. Siddiqui, Shahzad, Ashraf and Manzoor	17-04-1976
43.	<i>Solanum surratense</i> Burm.f.	Solanaceae	95050	668	Attock	Shahzad Iqbal and Maqsood	10-04-1978
44.	<i>Solanum minutum</i> Bernh. ex Willd.	Solanaceae	17376	512	Hazro Attock	M. Shah and Nisar	06-05-1977
45.	<i>Datura innoxia</i> Miller	Solanaceae	11742	431	Attock	Iqbal Dar, Anjum and Amin	23-04-1975
46.	<i>Withania somnifera</i> (L.) Dunal	Solanaceae	11740	420	Attock	Iqbal Dar and Anjum	23-04-1975
47.	<i>Urtica pilulifera</i> L.	Urticaceae	30193	60	Hattian to Attock	Iqbal Dar and Collectors	15-03-1976
48.	<i>Peganum harmala</i> L.	Zygophyllaceae	13074	80	Attock	M.N. Chaudhry, Iqbal Dar and Anjum Amin	22-03-1975
49.	<i>Tribulus terrestris</i> L.	Zygophyllaceae	81507	788	Attock	Shahzad Iqbal and Maqsood	12-04-1978

Table 1. Medicinal plants of Attock District and their parts used to cure ailments based on the information gathered from the locals by using the semi-structured and close ended questionnaires.

Family	Species/Voucher specimen No	Vernacular name	Plant part used	Uses
<i>Aizoaceae</i>	<i>Triantema portulacastrum</i> L.	Itisi	Whole plant	Diuretic, laxative, asthma, jaundice, abdominal diseases, cures for pain in bladder.
<i>Amaranthaceae</i>	<i>Achyranthes aspera</i> L.	Puthkanda	Roots, leaves & stems	Decoction in water used for asthma, cough, stomach pain, piles and skin eruptions. Root infusion is used to remove kidney stone.
<i>Amaranthaceae</i>	<i>Amaranthus viridis</i> L.	Chulai	Leaves	Good emollient properties; as purgative for digestive problems.
<i>Asteraceae</i>	<i>Ageratum houstonianum</i> Mill.	Zergul	Leaves & inflorescence juice	Wounds, antidote for snake bite
<i>Asteraceae</i>	<i>Calendula arvensis</i> L.		Leaves and flowers	Strengthen far eye site, heart diseases, healing the skin. It is also used as tonic and is anthelmintic
<i>Asteraceae</i>	<i>Cichorium intybus</i> L.	Neeli booti, Kasni	Leaves, roots and flowers	Used as tonic for liver, in fever, diarrhoea and enlargement of spleen and also in asthma
<i>Asteraceae</i>	<i>Helianthus annuus</i> L.	Suraj Booti	Seed oil	Expectorant, Direct, cold and cough, bronchitis, malaria fever
<i>Asteraceae</i>	<i>Silybum marianum</i> Gaertn.	Kandiari	Ripe seed	All liver problems such as cirrhosis (Hardening of the liver) Jaundice, Hepatitis, Colonists (Inflammatory bile duct)
<i>Asteraceae</i>	<i>Xanthium strumarium</i> Patrín	Chhota Dhatura	Roots, fruits and seeds	Sedative, and diuretic used in stomach diseases, demulcent and cooling effect given in small pox and dysentery. Also used in malaria
<i>Apiaceae</i>	<i>Anethum graveolens</i> L.	Ajwan, Soai	Fruit and seed	Gastritis, to increase the lactation of the cattle, colic in babies
<i>Apiaceae</i>	<i>Trachyspermum ammi</i> L.		Seeds	Used in digestive problems, diarrhoea, dysentery, gastritis, bones fever, abdomen pain, whooping cough and asthma.
<i>Asclepiadiaceae</i>	<i>Calotropis procera</i> (Willd.) R. Br.	Ak	Unripe flowers rarely whole plant	Gastritis, malaria, cholera and asthma. Latex is used in skin disorders.
<i>Brassicaceae</i>	<i>Capsella bursa-pastoris</i> (L.) Medic.	Bambaisa	Seeds	Dropsy, diarrhoea, healing wounds, it is rarely used as vegetable.
<i>Brassicaceae</i>	<i>Sisymbrium irio</i> L.	Jangli sron/khun kalan	Leaves and seeds	Seeds are exporant, stimulant, & restorative properties, leaves externally used as poultice. Throat and chest infection

Table 1. (Cont'd.).

Family	Species/Voucher specimen No	Vernacular name	Plant part used	Uses
Canabimnaceae	<i>Canabis sativa</i> L.	Bhang	Whole plant and seeds	The whole plant is used as tonic, stomachic & anodyne. Domestic birds are given its seeds as feed mixed with other grains for keeping them healthy. Roasted seeds mixed with other dry fruits are used as special serving to guests in winter season. The seeds are used raw as medicine for sour throat.
Capparidaceae	<i>Capparis spinosa</i> L.	Kareer	Fruits for prickle & branches	Chest pain, general pain and rheumatism
Caryophyllaceae	<i>Silene conoidea</i> L.	Silene gulahi booti	Whole plant	Plant is emollient; it is used in bath or as fumigant.
Caryophyllaceae	<i>Stellaria media</i> (L.) Cyr.	Cheridana, khash khashi booti	Green tops and fresh seeds	Healing acts, sorres, inflammation.
Chenopodiaceae	<i>Chenopodium album</i> L.	Bathu	Whole plant	Cooling effect, liver diseases, jaundice. It is laxative and also used as fodder.
Convolvulaceae	<i>Convolvulus arvensis</i> L.	Laili, poli, hiranpadi	Leaves especially whole plant	Piles, skin disorder. Roots are purgative.
Cuscutaceae	<i>Cuscuta reflexa</i> Roxb.	Akash bail	Whole plant	Diarrhea & dysentery. It is blood purifier, purgative, diuretic, used in jaundice, paralysis & vomiting.
Cyperaceae	<i>Cyperus rotundus</i> L.	Deella	Whole plant specially roots	It is used to cure chronic sores, abdomen pain.
Euphorbiaceae	<i>Euphorbia helioscopia</i> L.	Chattri dodak	Whole plant	Cathartic, anthelmintic, purgative. The juice is applied to eruptions.
Euphorbiaceae	<i>Euphorbia hirta</i> L.	Aam dodak	Whole plant	Expectorant used in bronchitis, cough.
Euphorbiaceae	<i>Ricinus communis</i> L.	Artnd	Oil of seeds & leaves	Intestinal selling, injuries, make intestine soft, constipation, jaundice, rheumatic swelling.
Fumariaceae	<i>Fumaria indica</i> (Hauuskn.) Pugsley	Shatera / Papra	Whole plant	Blood purifier, piles, allergy, diuretic & anthelmintic.
Lamiaceae	<i>Mentha piperata</i> L.	Sawa podina	Whole plant, especially leaves	Indigestion, headache, antispasmodic, vomiting, abdomen pain.
Lamiaceae	<i>Mentha longifolia</i> (L.) Huds.	Jangli podina	Whole plant	Dried leaves are used as stomachache agent also used as carminative, in diarrhoea and dysentery.
Lamiaceae	<i>Salvia moercroftiana</i> Wall. ex Benth.	Gulkand	Leaves and roots	It is antirheumatic and is also used with boiled egg in tonsillitis
Mimosaceae	<i>Acacia nilotica</i> (L.) Del.	Babul, kikar	Leaves, stem bark, fruit gum	For fore head to relieve high fever, skin diseases, injuries. Leaf poultice is used for healing wounds Constipation, diarrhoea, dysentery, cough, throat diseases. Gums are used as a tonic & also for diabetes.

Table 1. (Cont'd.).

Family	Species/Voucher specimen No	Vernacular name	Plant part used	Uses
Mimosaceae	<i>Acacia modesta</i> Wall.	Phulahi	Gum	Gum is used as a tonic, for curing dysentery and weakness. Branches are as miswak to clean the teeth.
Moraceae	<i>Ficus palmata</i> Forssk.	Jangli Anjeer	Fruits & latex	Expectorant, kidney stones, laxative and demulcent.
Nyctaginaceae	<i>Mirabilis jalapa</i> L.	Gul-e-abbasi	Whole plant	External application for skin, diseases, piles and mild purgative.
Oxalidaceae	<i>Oxalis corniculata</i> L.	Khatti mithi booti	Leaves	Used to cure diarrhea, dysentery.
Papilionaceae	<i>Medicago sativa</i> L.	Alfalfa	Whole plant	Urinary problems, tonic for general weakness of body.
Poaceae	<i>Cynodon dactylon</i> (L.) Pers.	Khabbal ghaass	Whole plant	Paste applied externally on eyelids for reducing the swelling and redness of eye to relieve the eye pain, skin injuries or cutting.
Poaceae	<i>Avena sativa</i> L.	Javi	Seeds	Nervous exhaustion & tension, skin allergy.
Polygonaceae	<i>Polygonum plebium</i> R.Br.	Derank	Whole plant	Dried plant used against pneumonia & cholera.
Polygonaceae	<i>Rumex dentatus</i> L.	Jangli palak	Roots	Root is used in bowels complaints.
Rhamnaceae	<i>Zizyphus nummularia</i> (Burm.f.) Wight & Arn.	Jangli beri	Leaves & fruit	Skin diseases, cough, anemia, diarrhea.
Rubiaceae	<i>Galearia aparine</i> L.	Chamuti booti	Whole plant	Tonic for urinary bladder, hair cleaner insomnia. Leaves are used for scabies & boils.
Scrophulariaceae	<i>Verbascum thapsus</i> L.	Gidder tambakoo	Leaves & flower	Tonic, blood purifying, diuretic, skin eruption, urinary problems.
Solanaceae	<i>Solanum surratense</i> Burm.f.	Mohakari	Fruits and leaves	Expectorants, bronchitis, antispasmodic, tuberculous, respiratory ailments. Leaves smoke to ease chest complaints, asthma.
Solanaceae	<i>Solanum miniatum</i> Bernh. ex Willd.	Kach mach, Makoh	Whole plant	Cough, bronchitis, respiratory trouble, abdomen pain and blood purification.
Solanaceae	<i>Datura innoxia</i> Miller	Aam datuara	Whole plant, seeds	Liver diseases, diabetes, rheumatism, diarrhoea, constipation, piles, skin diseases, heart diseases, expectorant, sedative.
Solanaceae	<i>Withania somnifera</i> (L.) Dunal	Asganth / axaon,	Roots & fruits	Leaves are applied to sores, fruits are sedative and intoxicating, seeds are narcotic and antiseptic.
Urticaceae	<i>Urtica pilulifera</i> L.	Bichu booti / kharish booti	Leaves and roots	Old cough, asthma, gastritis, antispasmodic, abdomen pain.
Zygophyllaceae	<i>Peganum harmala</i> L.	Harmal	Whole plant	Strengthening & tonic for whole body, asthma, expectorant, kidney & urinary problems.
Zygophyllaceae	<i>Tribulus terrestris</i> L.	Bhakra	Whole plant, fruits	Plants have insecticidal properties brain tonic, blood purifier. With olive oil for ear diseases, as a remedy for tapeworm.
				Cooling effect, diuretic, demulcent, astringent, heart diseases, back pain.

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