

Research Article

Medicinal Value of Indigenous Flora in the Vicinity of District Bannu, Khyber Pakhtunkhwa, Pakistan.

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ABSTRACT

Herbalism is thought to have started some 60,000 years ago but during the Greek Era, knowledge on the use of medicinal plants expanded. The present study was carried out during 2013 to assess record and report the Ethno botanical knowledge of Bannu District. Medicinal information of Sixty five (65) plants were reported by interviewing local inhabitants i.e. hakims, herbalists, farmers and medicinal plant users. The present investigation comprises uses of 65 species belonging to 36 families of Angiosperms based upon their utility. Out of this rich Medicinal germplasm, 66.15% plants were wild, 44.18%, species were found to be cultivated while 26.74% of the total flora of this area species was both wild as well as cultivated. The most important medicinal families were *Apiaceae*, *Brassicaceae*, *Ranunculaceae* and *Solonaceae* having 04 Plants each, *Astraceae*, *Chenopodiaceae*, *Lamiaceae*, *Mimosaceae*, *Papilionaceae* and *Plantagonaceae* having 03 plants each, while *Apocynaceae*, *Euphorbiaceae*, *Rhamnaceae*, *Salicaceae* and *Verbenaceae* having 2 plants each which were medicinally very important. Moreover, *Moraceae*, *Rosaceae* *Amaranthaceae* and other 18 remaining families having 01 plant each. The most common medicinal plants in the area were *Albizia lebbek* L. *Apium graveolens* L. *Cuscuta reflexa* Roxb. *Cannabis sativa* L., *Coriandrum sativum* L., *Cordia obliqua* Willd, *Citrus medica* L., *Dodonia viscosa* L., *Foeniculum vulgare* Miller, *Ficus carica* L., *Nerium oleander* L., *Mentha royleana* L., *Ocimum sanctum* L., *Ocimum basilicum* L., *Papaver somniferum* L., *Plantago* spp., *Ranunculus* spp, *Trachyspermum ammi* L. Some plants have wild fruits i.e. *Capparis decidua* Forsk., *Solanum nigrum* L., while *Rumax dentate* Don, *Vicia sativa*, *Medicago polymorpha* L. and *Lepidium sativum* L. were wild vegetables.

Key Words: Indigenous Flora; Bannu

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INTRODUCTION

District Bannu is a green valley, irrigated by River Kurram and Hill torrents. It is famous for its condiments, fruits and vegetable, as Edward (First settlement officer of District Bannu) called it a vegetable emerald. The People of District Bannu are still enforced to apply traditional or alternative medicine for their cure. The knowledge of uses of plants transmitted from one generation to the next (Dexit and Pandey 1984). People use plant in many ways such as Food, Fodder, Fuel wood, Timber wood, medicinal, etc (Hussain and Haliq, 1996). It shows that there is a huge contact of human life with local flora as well as local flora influence human beings.

Ethnobotanical studies commonly identify in the neighborhood important plant species which has indigenous use. Medicinal plants are also important for the livelihoods of deprived communities all over the world. Malik *et al.* (1990) gathered some beginning ethnobotanical information from six districts of Balochistan. Shinwari and Khan (2000) conducted ethno botanical research project in Margalla Hills National Park to record the inhabitant uses of herbs. Durrani *et al.* (2006) have studied the ethnobotanical plants of S.B.K. woman University Quetta, Pakistan. Zabih Ullah *et al.* (2006) studied the ethnobotanically important plants of Kot Manzary Baba, Malakand Agency. Sultan *et al.* (2007) published the research paper on salt range plants of District Karak. Hayat *et al.* (2008)

published a research article on ethno-taxonomical approach in the identification of useful medicinal flora of Tehsil Pindighab (District Attock). Gul Jan *et al.* (2008) studied the ethnobotanical plants which are used against diarrhea and dysentery in Dir Kohistan Valley. Schmidt *et al.* (2009) experimentally proved that plants scope for researchers affianced in justification of habitual claims for the enlargement of drugs. From the literature it reveals that Bannu district with rich medicinal flora has remained unexplored. Therefore present study has been undertaken to record Medicinal Value of Indigenous Flora in the Vicinity of District Bannu.

MATERIALS AND METHOD

To explore Ethnobotanically important flora of District Bannu, several field trips were arranged to the study areas during the year 2013, to bring together all those plant species of medicinal value which are mainly used for the treatment of the most popular diseases. The information from the local inhabitants were collected by using various techniques such as open interview, dialogue of about 1 or 2 hours with local communities, such as Hakims and experienced villagers, and through questionnaire. About 150 experienced people and 50 Hakims were interviewed in this regard. The plant specimens were recognized with the help of flora of Pakistan. Voucher specimens are deposited in the Department of Botany UST,

Bannu and the nomenclature used in this report follows this literature, Nasir and Ali, (2005); Rubina (1998); Ali and Fefevre, (1996); Khalid (1995); Wazir *et al.* (2007).

The equipments during the Research work were Map of area, Camera, Knife, Polythene Bags, Plant Presser, Pencil, Note Book, old English News Papers and Blotting Papers.

The methodology comprised of field surveys, use of questionnaire and collection of plants and their subsequent identification and collection of information regarding their medicinal uses. To study the medicinal and ethno-botanical outlines of plants, a Performa was developed to record the different characteristics of plants. The outskirts areas visited were, Khujari, Bharat, Kakki, Mandan, Mira Khel, Ismail Khel, Sokari, Bada Mir Abas and Mandew. The process concerning with allotting names in alphabetical order followed by Botanical name, local name, parts used, flowering period, voucher specimen no. and medicinal uses.

RESULTS AND DISCUSSION

Medicinal information of Sixty five (65) plants were reported by interviewing local inhabitants i.e. Hakims, herbalists, farmers and medicinal plant users. The present investigation comprises the indigenous uses of 65 species belonging to 36 families of Angiosperms based upon their utility. Out of this rich Medicinal germplasm, 66.15% plants were wild, 44.18%, species were found to be cultivated while 26.74% of the total flora of this area species was both wild as well as cultivated. The most important medicinal families were *Apiaceae*, *Brassicaceae*, *Ranunculaceae* and *Solanaceae* having 04 Plants each, *Astraceae*, *Chenopodiaceae*, *Lamiaceae*, *Mimosaceae*, *Papilionaceae* and *Plantagonaceae* having 03 plants each, while *Apocynaceae*, *Euphorbiaceae*, *Rhamnaceae*, *Salicaceae* and *Verbenaceae* having 2 plants each which were medicinally very important. Moreover, *Moraceae*, *Rosaceae*, *Amaranthaceae* and other 18 remaining families having 01 plant each. The most common medicinal plants in the area were *Albizia lebbek* L. *Apium graveolens* L. *Cuscuta reflexa* Roxb, *Camnabis sativa* L., *Coriandrum sativum* L., *Cordia obliqua* Willd, *Citrus medica* L., *Dodonia viscosa* L., *Foeniculum vulgare* Miller, *Ficus carica* L., *Nerium oleander* L., *Mentha royleana* L., *Ocimum sanctum* L., *Ocimum basilicum* L., *Papaver somniferum* L., *Plantago* spp., *Ranunculus* spp., *Trachyspermum ammi* L. Some plants have wild fruits i.e. *Capparis decidua* Forsk., *Solanum nigrum* L., while *Rumax dentate* Don, *Vicia sativa*, *Medicago polymorpha* L. and *Lepidium sativum* L. were wild vegetables.

The present indigenous plants studies provide information on folk medicinal uses of the described plants. The study area is nearly un-explored uptill now and present research paper is a part of Ph.D research work which brings some fascinating medicinally important plants to the screen like *Rumax dentate*, *Phyla nodiflora*, *Trachyspermum ammi*, *Nerium oleander*, *Apium graveolens* L. and *Cuscuta reflexa* Roxb have high quality medicinal property especially for gas problem, digestion and tooth cleaning. *Phyla nodiflora* used for diarrhea, *Solanum surattense* fruit in curing diabetes, Bark of *Ficus* species were used for treatment of jaundice and hepatitis. Some plants were used as vegetable i.e. *Lycopersicon esculentum* etc. Similarly *Calototropis procera* show very good result in domestic animal disease treatments. *Solanum nigrum* was rare plants and need proper conservation. Shinwari and Khan, (1999).

Brief Descriptions and local uses of Medicinal Plants Species of District Bannu

Botanical Name: *Acacia Modesta* Wall (*MIMOSACEAE*)

Local Name: Paluasa

Habit and Habitat: A small medium, size deciduous tree, grows in xeric area.

Flowering Period: March–April

Part Used: Gum can be extracted from bark, wood and leaves.

Folk Medicinal Uses: The gum of this plant is cooked and after grinding, it is used for the pain of body parts. The gum obtained from the bark is used as tonic, stimulant and demulcent.

Botanical Name: *Acacia Nilotica* (L.) Delile (*MIMOSACEAE*)

Syn: A: arabica (Lam) Wild

Local Name: Kikar Babal (Urdu)

Habit and Habitat: A common medium size tree, spine stipule in pair below the petiole, this wild plant grows in xeric condition.

Flowering Period: March–April.

Part Used: Bark, Gum, Leaves, seed, pods, wood, root.

Folk Medicinal Uses: The branches are used as toothbrushes for its germicidal property. Bark is used in diarrhea, dysentery and astringent. Pods are used as a powerful expectorant. Mixed powder of leaves, flower, bark, fruit and root together used as aphrodisiac. The roots are used in making domestic vine. Gum is used in cough, rheumatism and mucous discharge.

Botanical Name: *Amaranthus Viridis* L. (*AMARANTHACEAE*)

Local Name: Surrma.

Habit and Habitat: An annual erect, glabrous weed, 30–60 cm high, very common in waste places.

Flowering Period: October–July

Part sed: green Leaves.

Folk Medicinal Uses: Leaves are used, as emollient. It is also used in scorpion sting and snakebite. It is used as anti helminthes

Botanical Name: *Albizia Lebbeck* (L.) Benth (*MIMOSACEAE*)

Local Name: Sreen

Habit and Habitat: A large deciduous, cultivated or wild tree.

Fl. Period: March–May

Part Used: Bark, wood seed and trunk.

Folk Medicinal Uses: The stone of surma is kept for one or two month inside the trunk of this plant, after washing, the surma is grind and used for eye diseases specially, for cataract. Bark and seeds are used as restorative, astringent also used for piles, diarrhea, dysentery and gonorrhoea. Flowers are used in carbuncle boils, swelling and other skin diseases. All parts are used in snakebite. Bark is used for eye diseases.

Botanical Name: *Apium Graveolens* L. (*APIACEAE*)

Local Name: Seva

Part Used: Seed and root

Flowering Period: June–July

Habit and Habitat: A medium size, to large erect biennial herb; leave radical.

Folk Medicinal Uses: Its seed are kept on the fire for wounded person so that the wounds can not be swells. Root is alterative, diuretic, also used in colic. Seed is stimulant, cordial, tonic, carminative and antiseptic. Also used for bronchitis, asthma, fever and spleen diseases.

Botanical Name: *Aspergus Gracilis* Roxb (*LILIACEAE*)

Local Name: Unknown.

Habit and Habitat: An herbaceous species with perennial, stout, rootstock, stem annual erect

Flowering Period: March– April

Part Used: Roots.

Folk Medicinal Uses: Roots are used as tonic, for weak children's. Also used in diarrhea, dysentery and in digestive disorders.

Botanical Name: *Brassica Campestris* L. (*BRASSICACEAE*)

Local Name: Woeri

Habit and Habitat: A cultivated vegetable and oil seed crop,

annual erect. Herb, more or less hairy.

Flowering Period: February–April

Part Used: Leaves seed and stem.

Folk Medicinal Uses: Seeds oil is used as Ointment in skin diseases masses, laxative and hair tonic. Also used as cooking oil, Khal (Seed– cakes) are considered to increase milk production and are given to domestic animals.

Botanical Name: *Calendula Arvenis* L. (ASTERACEAE)

Local name: Zair gulai

Habit and Habitat: A medium size annual wild herb, more or less hairy

Flowering Period: March–April

Part used: Leaves and flowers.

Folk Medicinal Uses: It is used as diaphoretic, anthelmintic and tonic. Honey mixed with flowers then used as stimulant, astringent and anti–spasmodic. The leaves powdered are used as a snuff to discharge mucus.

Botanical Name: *Calotropis Procera* (Wild) R.BR. (ASCLEPIADACEAE)

Local Name: Spalmaka.

Habit and Habitat: An erect glabrous shrub, much branched from the base, covered with soft white tomentum.

Flowering Period: June–October

Part used: Latex, shoot and leaves

Folk Medicinal Uses: Its leaves are utilized for, relief of pain and recovery of wounds, the grass hopper of this plant is used for increase of sexual behavior in animal. Leaves are smoked for curing asthma, also used in veterinary medicine for swellings, if thorn or spine is broken in the skin, a drop of its milky latex will catch it out.

Botanical Name: *Capparis Deciduas* (Forsk.)Edge (CAPPARIDACEAE)

Syn: *Capparis aphylla* Roth.

Local Name: Kara

Habit and Habitat: A waste land small size tree.

Flowering Period: June–July/

Part used: Fruit, branches, wood and flower.

Folk Medicinal Uses: Un–ripen fruit is used as anthelmintic in animals. It is also used for those animals which eat little grass. Its ash is mixed with ghee and used in backache and rheumatism.

Botanical Name: *Chenopodium Album* L. (CHENOPODIACEAE)

Local Name: Surma, Batho (Punjabi)

Habit and Habitat: common weeds of waste fields in district Bannu.

Flowering Period: February–march.

Part used: Whole plant.

Folk Medicinal Uses: This plant is anthelmintic, laxative and also used in enlarges spleen and hepatic disorder. The roots are used in rheumatism jaundice and urinary diseases while roots along with fruits are antidote to snake poison.

Botanical Name: *Chenopodium Murale* L. (CHENOPODIACEAE)

Local Name: Thar surma,

Habit and Habitat: An annual herb, Very widespread weed of waste places

Part used; all parts of plant

Flowering Period: February–March.

Folk Medicinal Uses: The roots of *C. Murale* are used in urinary diseases and jaundice. It is commonly used as antihelmintic, laxative and in hepatic disorder.

Botanical Name: *Chenopodium Ambrosioides* L. (CHENOPODIACEAE)

Local Name: Unknown

Habit and Habitat: A tall much branched, annual or perennial aromatic, Glandular herb

Flowering Period: February–March

Part used: entire plant.

Folk Medicinal Uses: *Chenopodium ambrosioides* is used for piles and as anthelmintic.

Botanical Name: *Cichorium Intybus* L. (ASTERACEAE)

Local name: Thariza.

Part Used: total plant.

Habit and Habitat: An erect, small to medium size perennial herb. This is a common weed of trifolium field.

Flowering period: March–June

Folk Medicinal Uses: juice of the grinded plant is effective for jaundice, hepatitis and enlargement of spleen. It is utilized as a tonic in vomiting, fever, diarrhea. Root is used as a diuretic.

Botanical Name: *Convolvulus Arvensis* L. (CONVOLVULACEAE)

Local Name: Parvathy.

Habit and habitat: An annual climbing herb, weed of different crops

Flowering Period: December–January

Part used: shoot and leaves.

Folk Medicinal Uses: A common field, weed .It is used as a Saag, which is used for removal of worm from Intestine especially from children. Decoction of the plant is used as anthelmintic and applied externally for skin disorders.

Botanical Name: *Cordia Obliqua* Willd (BORAGINACEAE)

Local Name: Loserha.

Habit and Habitat: A small cultivated tree, with smooth grey bar. Leaves alternate

Flowering Period: April – May

Part used: Fruit.

Folk Medicinal Uses: Fruit are used in asthma and cough. It is laxative and dilates the pharynx and removes its irritation. It is also used for backbone pain.

Botanical Name: *Coriandrum Sativum* L. (APIACEAE)

Local Name: Diarrhea.

Habit & Habitat: A wild small to medium sized, erect, annual cultivated and Strongly scented herb.

Flowering Period: March–April.

Part used: leaves and seeds.

Folk Medicinal Uses: This is aromatic, stimulant and carminative, effective for piles, increase gastric juice secretion. Decoction of fruits is utilized for colic while seeds are considered to increase appetite. Decoction is used for meningitis in pigeons. Fresh leaves are also used as condiment and flavoring agent. Gargling by its decoction is useful in throat infection. It is also useful for high blood pressure peoples.

Botanical Name: *Cuscuta Reflexa* Roxb (CUSCUTACEAE)

Local Name: Zara parvathy

Habit and Habitat: An annual twining and common parasite of ziziphus species.

Flowering period: March–April

Part used: Stem, fruit and seeds.

Folk Medicinal Uses: The whole plant is grinded and then used for purification of blood. It also used for irritation. The plant is used as diuretic, purgative, carminative and anthelmintic, also used in vomiting, paralysis, joint pains and jaundice; stem is very effective in bilious disorders.

Botanical Name: *Cannabis Sativa* L. (CANNABINACEAE.)

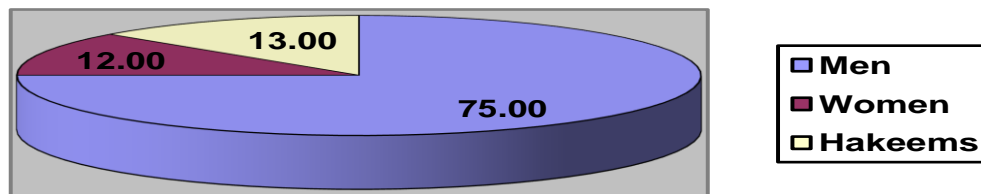
Local Name: Bhang

Part used: Leaves

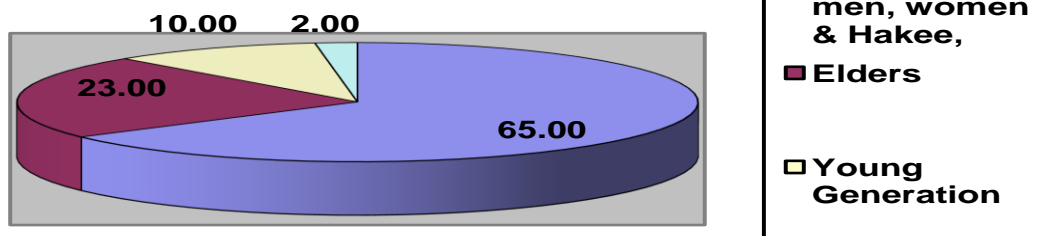
Habit and Habitat: An annual cultivated and wild shrub.

Flowering Period: March –April

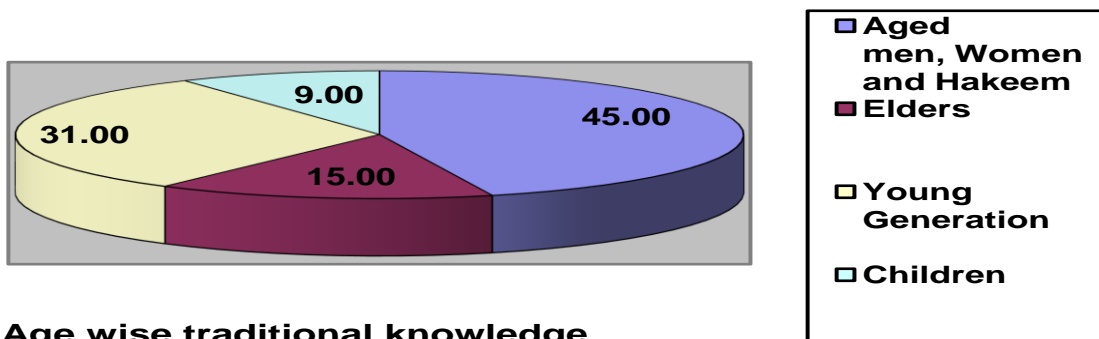
Folk Medicinal Uses: The leaves of *C. sativa* are grind and mixed with different fruit, then used for narcotic purpose and



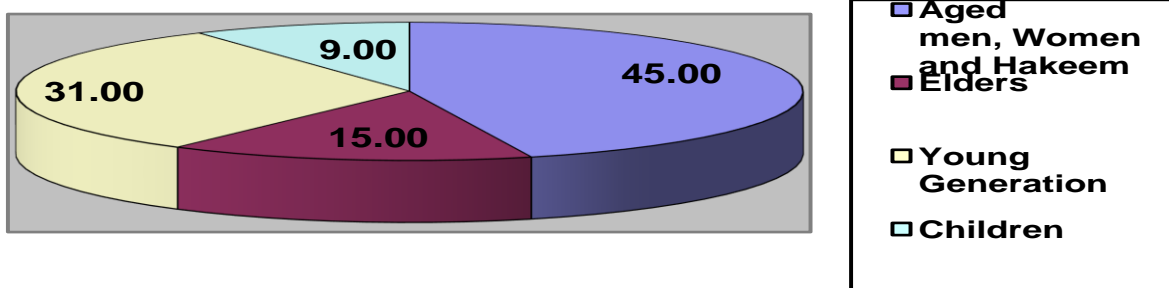
Percentage Utility of studied plants



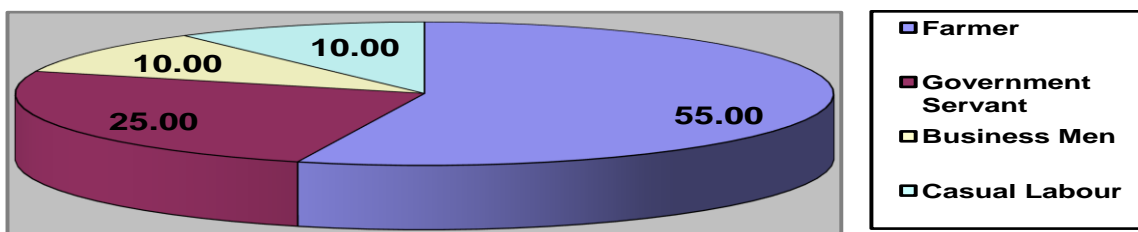
Number of local People interviewed for Ethnobotanical data



Age wise traditional knowledge



Age wise percentage of medicinal plants utilization



Percentage of Profession people interview

also for cooling or coldness. The leaves are narcotic and used as stimulant. It is mostly used in summer for coldness. Flowering tops are sedative, anodyne and narcotic.

Botanical Name: *Datura Stramonium* Linn. (*SOLANACEAE*)
Syn: *D. Innixia* Miller

Local Name: Barbaka

Habit and Habitat: Large coarse annual herbs, up to 1.5 m tall in common weed of waste places.

Part used: Leaves, seeds

Flowering Period: May–July

Folk medicinal uses: Very medicinal and used for wound recovery. Seeds and leaves have narcotic action and are smoked. Seed are also purgative and used in intentional disorder and for fever, also used in asthma and cough. Its watery solution causes pupil's dilation. The juice of flower petals is used for ear pain. Leaves are mixed with mustard oil and are used as poultice in skin disorders.

Botanical Name: *Dodonaea Viscosa* (L.)Jaeq. (*SAPINDACEAE*)

Local Name: Sanatha.

Habit and Habitat: An n annual or perennial shrubby plant of dry area.

Flowering Period: April–June

Folk medicinal uses: Leaves are bitter and astringent, used in goat rheumatism, swelling and burns. Bark is employed in astringent, bath and fermentation. The *Dodonaea viscosa* oil is used for snake bite

Botanical Name: *Erythraea Ramasissima* L. (*GENTIANACEAE*)

Local Name: Seir guli and speen guli

Habit and Habitat: An annual, weed of wheat crop.

Flowering Period: April–June.

Part Used: Whole plant

Folk medicinal uses: The whole plant is dried and grained; it then mixed it, with salt, and used for the abdomen pain. 2or3gram are used at a time.

Botanical Name: *Euphorbia Helioscopia* L. (*EUPHORBIACEAE*)

Local Name: Parparay

Habit & Habitat: An annual weed, of different winter crops, smooth, small herb.

Flowering Period: February–April

Part used: Shoot, root and juice or latex.

Folk medicinal uses: Used for different disease of animals. It is an anthelmintic and cathartic. Juice is useful for eruption while the latex is considered to be poisonous and causes swelling and irritation on skin. It is also used as fish poison.

Botanical Name: *Fagonia Cretica* L. (*ZYGOPHYLLACEAE*)

Local Name: Spelaghzai

Habit & habitat: A small annual green spinning waste land or dry area herbs.

Part used: Young branches, leaves and fruits.

Folk medicinal uses: young branches and Leaves are grained and mixed with water and sugar then one glass is used for purification of blood and allergies. It is also used in summer for cooling. It used two times for the whole season.

Botanical Name: *Ficus Carica* L. (*MORACEAE*)

Local name: Tooghoo Fig (urdu)

Habit & Habitat: A large shrub of small tree.

Flowering period: January–April

Part used: Frut and wood.

Folk medicinal uses: The fruit is edible. It is also used as a vegetable. The fruit of this plant is also used for diabetes and some other diseases. It is a fuel wood tree, hot tree, fruits are demulcent and laxative. It is used in urinary tract diseases, piles

and constipation. It is also used in naming. This tree is considered to be come from heaven. Leaves are served as fodder.

Botanical Name: *Foeniculum Vulgare* Miller (*APIACEAE*)

Local Name: Soup

Habit& Habitat: An erect, medium to large size biennial or perennial herb.

Flowering period: March–April

Part used: Fruit, Shoot.

Folk medicinal uses: Used as a fuel plant and also used for removal of gases. Essential oil obtained from its fruit. Fruit is used in confectionary, condiments and pickle as flavoring agent. Fruits are digestive (gas trouble), expectorant (clear throat) and are anti dysenteric, colic and improve eye sight.. Shoots are used as fuel It is a honey bee species and are considered to be very good for lactating mothers.

Botanical Name: *Fumaria Indica* (Haussk) Puysey (*FUMARIACEAE*)

Local Name: Murghipal

Habit and Habitat: A common weed of wheat fields, small, scandent, branched, annual herb.

Flowering period: February–March

Part used: Whole plant

Folk medicinal uses: The plant is crushed and mixed with a sugar, then used one glass for allergies and blood purification. It is used as a digestive and antipyretic agent. Decoction is used in leprosy

Botanical Name: *Lepidium Sativum* L. (*BRASSICACEAE*)

Local Name: Bushta

Habit & Habitat: Weed of road side and weed of different crop

Flowering period: March–April

Folk medicinal uses: A common weed of, waste places, used as a saag, and anthelmintic.

Botanical Name: *Medicago polymorpha* L. (*PAPILIONACEAE*)

Local name: Malkindye.

Habit and Habitat: A small annual creeping annual wild herb.

Flowering Period: April–May

Part used: Leaves, and young stem.

Folk medicinal uses: A common pot herb, used as a, laxative, digestive and tonic.

Botanical Name: *Melilotus Alba* L. (*PAPILIONACEAE*)

Local Name: Shanzai.

Habit and Habitat: A common annual weed.

Flowering period: April–May

Part used: Whole plant

Folk medicinal uses: A common pot herb, also used externally as a poultice on inflammation and swellings. It is emollient. Seeds are used in dysentery and diarrhea.

Botanical Name: *Melia Azedarach* L. (*MELIACEAE*)

Local Name: Bakanrha.

Habit and habitat: A moderate sized deciduous tree.

Flowering period: March–April.

Part used: Whole plant.

Folk medicinal uses: Ripen fruits, used against diabetes. Four or three fruit are used for diabetes patients. Bark is used as cathartic and emetic. Also applied as poultice to relieve nervous, headaches. Seeds are used in rheumatism; Gum, used as remedy for spleen enlargement.

Botanical Name: *Mentha Royleana* L. (*LAMIACEAE* or *LABIATAE*)

syn. *Mentha sylvestris* L.

Local Name: Velana

Habit & Habitat: It is found only on the bank of steams. The Population of this plant severely depleting. It proper cultivation must be necessary

Flowering period: June–August
Part used: Young stem and leaves.
Folk medicinal uses: The dried leaves are grind in to powder and mixed with salt then, used it for the gas problems or as a carminative, digestive, diarrhea and dysentery. The leaves are used for cleaning of teeth and also used as a Saag.
Botanical Name: *Nerium Oleander* L. (*APOCYNACEAE*)
Local Name: Gandari. (Kaneer in Urdu).
Habit and Habitat: An ornamental shrub or bush, common in streams
Flowering period: April–October.
Folk Medicinal uses: Bark is useful in leprosy (skin diseases). Paste of root is useful for abortion. Root is useful in scorpion sting and snake bite. Decoction of leaves is applied externally to reduce swellings (Rumi village). Dogs are died by eating its stem (people observation)
Botanical Name: *Nasturtium* *Officinale*
R.BR. (BRASSICACEAE)
Local Name: Unknown.
Habit & Habitat: A small perennial wild aquatic plant.
Flowering period: March–April
Part used: Vegetative shoot
Folk medicinal uses: Used as pot herb and salad, its decoction and “Saag” is used as appetizer, stomach, anticolic, diuretic and also used in chest problem.
Botanical Name: *Ocimum basilicum* L. (*LAMIACEAE*)
Local Name: Bobarai.
Habit and Habitat: A medium sized, strongly scented annual wild/cultivated herb.
Flowering period: Throughout the year.
Part used: Flowers, leaves.
Folk medicinal uses: It is used for ear pain, its flower is cooked in oil and then put one drop in ear. Used in superstitious folklores. Its seed are used in dysentery and bleeding piles It is also used as carminative.
Botanical Name: *Ocimum sanctum* L. (*LAMIACEAE*)
Local Name: Tulsi
Habit & Habitat: An erect, medium size perennial herb.
Flowering period: Throughout the year.
Part used: Leaves.
Folk medicinal uses: Its flower is cooked in oil or Juice is prepared from the plant and put in to the ear for relief of earache (ear pain). Leaves are used as poultice on swellings & inflammation. Menstrual cycle is regulated by decoction of this plant.
Botanical Name: *Oryza sativa* L. (*POACEAE*)
Local name: Sheley
Habit & Habitat: A tall leafy annual grass.
Flowering period: September–October
Part used: Grain, Straw
Folk medicinal uses: An important cereal crop. It is also used as fuel. Its decoction is given to children in dysentery. Hay is used as an insulating agent in mosques, also used as fodder. The outer cover of the seeds locally called Pahag, is given to Donkey and Horses.
Botanical Name: *Oxalis corniculata* L. (*OXALIDACEAE*)
Local Name: Khatti–boti (Urdu), Tarveka (Pashto)
Habit & Habitat: A small annual or perennial creeping herb.
Flowering period: Through out the year
Part used: Whole Plant
Folk medicinal uses: Fresh leaves of this plant are eaten by the children; its Juice is used for diarrhea and in stomach troubles by the local peoples. Decoction of root is use for worm, also used in sparkling rusted vessels. Plant’s extract is used against scorpion sting.
Botanical Name: *Papaver somniferum* L. (*PAPAVERACEAE*).

Local Name: Apendoda.
Habit & Habitat: A medium size un-branched annual herb.
Flowering Period: March–April
Part used: Flowering tops and fruits.
Folk medicinal uses: Its seeds used as a tonic, it increase milk production in women. It is used as narcotic plant; narcotics are locally prepared from this plant. Yield opium from dried coagulated latex. Also yield poppy oil. Seed are used in confectionery. Decoction of dried capsules, are given in cold and cough. Latex mixed with wax is rubbed on chest and ribs of children in asthma.
Botanical Name: *Plantago Major* L. (*PLANTAGINACEAE*)
Local Name: Unknown.
Habit & Habitat: A small smooth perennial herb.
Part used: Leaves, fruits, seeds,
Flowering period: April–May.
Folk medicinal uses: Extract of leaves improve blood clotting, when applied on wound. Also help in healing of wound. It is demulcent in dysentery, piles and urinary tract diseases. It is also used in toothache.
Botanical Name: *Plantago Minor* L. (*PLANTAGINACEAE*)
Local Name: Unknown
Habit & Habitat: A small perennial smooth or hairy herb..
Flowering period: April–May
Part used: whole
Folk medicinal uses: It is common weed. It is demulcent used in dysentery, piles and urinary tract diseases.
Botanical Name: *Plantago Ovota* L. (*PLANTAGINACEAE*)
Local Name: Ispaghual.
Habit & Habitat: A small annual wild/cultivated herb.
Flowering period: April–May
Habit & Habitat: An annual wild/ cultivated plant.
Part used: Seeds.
Folk medicinal uses: The seed of the plants are used for diarrhea and for stomach problem. The seeds are mixed with water, milk and sugar then given to stomach problem patient, before eating anything.
Botanical Name: *Portulaca Oleracea* L. (*PORTULACACEAE*)
Local Name: Woorkhora.
Habit & Habitat: A small succulent prostrate herb.
Part used: Vegetative portion.
Flowering period: May–June.
Folk medicinal uses: A common pot herb. It is alterative, laxative and refrigerant and is useful in urinary tract problems.
Botanical Name: *Phyla Nodiflora* L. (*VERBENCEAE*)
Local Name: Khso beta
Habit & Habitat: A small creeping, perennial, waste places. Plant
Flowering period: May–July
Part used: Whole plant
Folk medicinal uses: It is a frequent weed of waste places and a weed of different crop. Its leaves are grind and then used for diarrhea, half cup two time in a day, given to a patient.
Botanical Name: *Ranunculus Aquatilis* L. (*RANUNCULACEAE*)
LOCAL NAME: Aobakhwar.
Habit & Habitat: A small annual sub merged herb..
Flowering period: March–April
Part used: Whole plant.
Folk medicinal uses: it is used as pain killer. It is also used for the diseases of animals. It is also used for fever.
Botanical Name: *Ranunculus Arvensis* L. (*RANUNCULACEAE*)
Local Name: Zaergulai
Habit & Habitat: An erect, small annual wild herb.

Part used: Whole plant.
Flowering period: March–April.
Folk medicinal uses: Used for fever. It is also used for cough, asthma, Pain killer.
Botanical Name: *Ranunculus Muricatus* L. (*RANUNCULACEAE*)
Local Name: Zaer guli
Habit & Habitat: An erect glabrous rarely, hairy annual herb.
Part Used: Whole Plant
Flowering Period: March–April
Fold Medicinal Uses: Used for different diseases of cattle, also used in cough and asthma.
Botanical Name: *Ranunculus Scleratus* L. (*RANUNCULACEAE*)
Local Name: Zaer guli.
Habit & Habitat: An erect glabrous annual herb, common in marshy and wet places.
Flowering period: February– April
Part used: Whole plant.
Folk medicinal uses: The plant is poisonous. Leaves are vesicant and applied to skin to raise blister.
Botanical Name: *Ricinus Communis* Linn (*EUPHORBIACEAE*).
Local Name: Raned
Habit & Habitat: An ever green soft, wooded shrub.
Flowering period: Throughout the year.
Part used: Seed, leaf, bark, root.
Folk medicinal uses: Seed of the plant, used by the women for family planning purposes. A poultice of leaves is applied to boils, swelling and to relieve pain of joints. The bark is used for healing wounds and sores. A paste of root is applied for toothache. The leaves are applied to the breast of women to increase the milk secretion; oil obtained from the seed is used as laxative and is given to children in case of constipation. Sometimes oil is also used to start labors pain and early delivery.
Botanical Name: *Rosa Moschata* J Herrm (*ROSACEAE*)
Local Name: Zangley gulap
Habit & Habitat: A smooth climbing perennial shrub.
Flowering Period: March–April
Part used: Flowers and branches.
Folk Medicinal uses: Flowers are used for fragrance and in making “Gulkand” which is refrigerant, fattening, tonic and laxative.
Botanical Name: *Rumex dantatus* D.DON (*POLYGONACEAE*)
Local Name: Tarveeka
Habit & Habitat: A large erect perennial herb.
Part Used: Leaves and young shoots.
Folk Medicinal uses: Leaves are carminative, astringent and diuretic, also used as flavoring agent
Botanical Name: *Salix Babylonica* L. (*SALICACEAE*)
Local Name: Wala
Habit & Habitat: A medium size, deciduous tree with pendulous branches, occurs with water courses.
Flowering period: March–April
Part used: Whole tree.
Folk medicinal uses: The leaves of this plant are grind and water are release from leaves, then used one to two drops three time daily to ear pain. Its roots are very successful against water erosion. Used in making water– mills due to its, stiff hard wood.
Botanical Name: *Salix Tetrasperma* Rosb. (*SALICACEAE*)
Local Name: Unknown
Habit & Habitat: A medium size wild annual tree.
Flowering period: March–April.

Part used: Leaves, seed and roots
Folk medicinal uses: Its Leaves poultice is useful to wounds. Leaves are grind and juice is used for ear pain. Roots are utilized in cough and cold while the seeds for dysentery.
Botanical Name: *Sisymbrium Irio* L. (*BRASSICACEAE*)
CRUCIFERAE
Local name: Zangli woeri.
Habit & Habitat: A tall more or less UN branched, annual or perennial wild spring weed.
Flowering period: March–April
Part used: Leaves and seeds.
Folk medicinal uses: Seeds are used as antipyretic and anti-vomiting .seeds are boiled with essence of rose and given in diarrhea and cough. Externally used as poultice.
Botanical Name: *Solanum Nigrum* L. (*SOLANACEAE*)
Local name: Khun–se–bai.
Habit & Habitat: A wild annual herb, grow on moist places.
Flowering period: all over the year.
Part used: Fruit, Leaves and young stem
Folk medicinal uses: Successfully used in heart diseases, used externally as poultice in skin disorder. Fruit are diuretic, tonic and carminative. The juice of makoo is also used for liver infections mainly for jaundice, hepatitis, and most commonly saag is used for jaundice.
Botanical Name: *Solanum Surratense* Burmr. F. (*SOLANACEAE*)
Syn: *S.xanthocarpum* shrad and wend
Local Name: Wara–mara–ghinrhye.
Habit & Habitat: A prostrate, thorny, annual wild herb.
Flowering Period: June–July
Part Used: Leaves & Fruit
Folk Medicinal uses: This plant is considered to be useful for eye irritation and for abdomen pain. Fruits are crushed into powder and are applied externally on head in mental disorders especially melancholia. Similarly decoction of fruit is used to wash out mouth in tooth ache. Crushing of fruits by barren feet is useful for diabetes. It is also used for eye diseases. Grinds fruits are used for pain and other internal diseases.
Botanical Name: *Tamarix Aphylla* (L) KARST (*TAMARICACEAE*)
Local Name: Ghaz.
Habit & Habitat: A large shrub, or small coniferous looking tree with erect trunk.
Flowering period: March–April
Part used: Whole tree.
Folk medicinal uses: Fumigation of leaves having germicidal effect and used in cold and flue. Grinded bark is used as poultice on wound. The leaves are grind or cooked then used for tetanus and pain.
Botanical Name: *Taraxacum officinal* Webber (*ASTERACEAE*)
Local Name: Zar gull.
Habit & Habitat: A small perennial herb, with milky juice.
Flowering period: March–April
Part used: Flower, leaves and root.
Folk medicinal uses: Used against tumors. It is laxative or mild purgative and tonic also used in kidney and liver diseases.
Botanical Name: *Trachyspermum ammi* (L.) Sprague (*APIACEAE*)
Local name: Sperkiye.
Habit & Habitat: An erect medium size, annual wild and cultivated herb.
Flowering Period: May–July
Part used: Seeds
Folk medicinal uses: Used in stomach disorders, also used for digestion purposes also given to animal in gastric problems.
Botanical Name: *Vicia Sativa* L. (*PAPILONACEAE*)

Local Name: Gharai Mattar

Habit & Habitat: A small annual weed, of different crop, mostly wheat.

Flowering period: March–April

Part used: Leaves & Fruit.

Fold Medicinal Uses: Used for vitamins, fruit is edible. The leaves of this plant are used as a saag.

Botanical Name: *Vitex Negundo* L. (VERBENACEAE)

Local Name: Marmandye.

Habit & Habitat: A shrub of waste places, especially on moist places, prefer to canal bank.

Flowering period: April–May

Part used: Leaves, roots and branches.

Folk medicinal uses: This plant is very medicinal It is diuretic and anthelmintic. Its branches are used as tooth brushes, Leaves are smoked to mitigate headache, and flowers are useful for skin disorder while Roots to reduce back ache. Most commonly used by the local people for the wheat protection from insect. Leaves or fresh branches (sometime grind) are placed in wheat stock for protection from insect and pests.

Botanical Name: *Withania somnifera* DUNAL (SOLANACEAE)

Local Name: Shapyange.

Habit & Habitat: An ever green annual, wild herb or under shrub.

Part Used: Leaves and seeds

Flowering Period: March–April

Fold Medicinal Uses: Seeds of withania are used in stomach pain, digestions, aphrodisiac, regulates menstrual cycle, coagulate milk and tonic. Leaves in paste form are used extremely for swellings and rheumatism as pain killer.

Botanical Name: *Vinca Rosea* L. (APOCYNACEAE)

Local Name: Sada Bahar

Habit & Habitat: A cultivated ornamental annual plants

Part used: Whole Plant

Flowering Period: Throughout the year

Fold Medicinal Uses: Grow as ornamental plant, used as a anti cancer.

Botanical Name: *Zizphus Mauratiana* L. (RHAMNACEAE)

syn: *Zizphus jujuba* Lam

Local Name: Bera

Habit & Habitat: An annual wild medium and large tree or large shrub almost ever green.

Flowering Period: April–May

Part used: Fruits, wood, branches, leaves.

Flowering period: March–April.

Folk Medicinal uses: Fruit are iron tonic and digestive. The plant is used as folk lore especially for goat. Leaves of this plant,

especially young leaves are used by the diabetes patient.
Botanical Name: *Zizphus Nummularia* Wight and Arn. (RHAMNACEAE)

Local Name: Karkanrh

Habit & Habitat: A tomentose bushy or thorny wild tree.

Flowering Period: April–May

Part used: Fruit, leaves, branches and wood.

Folk medicinal uses: Fruit are used by game birds and human beings. Fruit is an iron tonic and digestive. The young stem and leaves are used by the diabetes patient.

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