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## **Ethno Veterinary Medicinal Uses of Plants from Samahni Valley Dist. Bhimber, (Azad Kashmir) Pakistan**

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**Abstract:** This study comprises of an ethnoveterinary report of medicinal plants of Samahni valley. It provides folk medicinal uses of plants used for treatment of various diseases of domestic animals. Among these important traditional knowledge is as; *Albizia lebbeck* is used to treat chronic diarrhoea, dysentery and snake bite, *Abutilon theophrasti* in ephemeral fever, *Bauhania variegata* in severe constipation, *Butea monosperma*, *Linum usitatissimum* and *Taraxacum officinale* as tonic to enhance milk and butter production, *Calotropis procera* and *Phyllanthus acidus* as antidote for snake bite, *Canabinus sativus* as anti ecto-parasites, *Capsicum annum* and *Putrangiva roxburgii* in bad eye effects, *Carissa opaca* and *Viola kashmiriana* in Mokhar, *Citrullus colocynthus* as antihelminthic, *Citrullus limon* as tonic for prolapse of uterus, *Dalbergia sisso* for bilious disorders, *Grewia asiatica* effective in release of after birth, *Gymnosporia royleana* in spleen pain, *Momordica dioca* in lungs disorders, *Musa paradisiaca* to enhance pregnancy, *Ricinus communis* in mange of goat, *Sassuria heteromala* for horse bite, *Trichodesma indica* in mastitis. Every plant species is provided with correct botanical name, local name, ethnomedicinal use(s) and mode of use. These folk lore informations hold water how traditional ethnomedicines have paramount importance in life and culture of a community generally and how these ethnoherbal data have key role in life, society and economy of people of area and more over it can be initiative for further phytochemical and pharmacological investigations about these medicinal plants of valley, which may be a step ahead towards new drug development. And last but not least, this report will helpful for some departments, forest, environmental, veterinary and lay man to provide clue for conservation of natural flora as before it is totally diminished from the surface.

**Key words:** Ethnoveterinary medicines, traditional knowledge, medicinal recipes, Samahni valley, Azad Kashmir, Pakistan

### **INTRODUCTION**

Ethnoveterinary medicine usually means 'the folk beliefs, knowledge, skills, methods and practices pertaining to the health care of animals' which plays key role in rural areas as major source of medicine being used to cure cattle. Here in this article ethnoveterinary medicine is simply defined as the medicines that livestock keepers are using in their daily life now, other than modern synthetic (western) drugs. (Mathius-Mundy and McCorkle, 1989). The nature has provided abundant plant wealth for all living creatures, which possess medicinal virtues. Plant based drugs have been in use against various diseases since time immemorial. The primitive man used herbs as therapeutic agents and medicament for healthcare of human beings and livestock, which they were able to procure easily. But due to rapid population explosion, a huge threat is created for the nature and

plants are mainly affected by this. Many important medicinal plants are being depleted very swiftly due to cutting and overgrazing ignorantly or determinately, which may lead towards complete extinction of some of these species. So the purpose of this study was to document the precious ethnomedicinal knowledge about these species, which may be helpful in preservation and conservation of the native flora. The essential values of some plants have long been published but a large number of them remain unexplored as yet. So there is a further necessity to explore their uses and to conduct pharmacognostic and pharmacological studies to ascertain their therapeutic properties (Baquar, 1989).

Samahni valley is one of the tehsil of district Bhimber (district area 1516 km) State of Azad Kashmir, Pakistan. Geographically it is located between 33.05°N latitude and 74.82°E longitude. The valley is situated at 975 m above sea-level and it represents tropical monsoon climate with

annual rainfall ca.150 cm and temperature 1-42°C (Anonymous, 1999). It covers ca.680 km<sup>2</sup> and has 12 towns viz. Jandichontara, Dab, Bandala, Samahni, Chowki, Bindi, Jandala, Poona, Chaahi, Baroh, Haripoor and Jajooha. It has north facing and south facing high mountains, with 1080-18975 ft altitude and variable topography. The population of district Bhimber, according to population census of 1999 report was 303,000 while the valley is inhabited by ca.95,000 individuals and major ethnic tribes; viz., Jat, Rajpoot, Gujar, Bokarwals, Malik, Mirza, Arrain, Syed and Butt (Kashmiries) (Baquar, 1989). As major economy of villagers is predominantly agriculture and forest products and due to remote area, no organised health care facilities are available for livestock. So the tribals depend mainly on local flora for ethnoveterinary medicines to cure their Animals. Generally, every farmer knows few ethnoveterinary recipes but the specialist in veterinary medicines called 'Bupari', have fairly good and quite enough knowledge, by their long experience and close association with native flora. Hence, to document the valuable ethnoveterinary informations this survey was conducted.

Although some ethnobotanical work has been performed on various areas of Pakistan (Ahmad and Siraj Din, 1996; Haq, 1993; Hocking, 1958; Hussain and Khaliq, 1996; Pie and Manandhar, 1987; Shinwari, 1996; Zaman and Khan, 1970), but no ethnobotanical survey has been carried out yet on Samahni valley, Azad Kashmir. So this ethnoveterinary research was conducted to record folklore informations about local medicinal plants of the valley being used as ethnoveterinary medicines.

#### MATERIALS AND METHODS

To compile ethnoveterinary profile of Samahni valley, regular field trips were arranged to the selected areas in years Jan-Dec, 2002. Informations on ethnoveterinary medicinal uses of plants were collected through interviews with tribal informants who were shepherds, farmers, cattle men and 'bupari'(cattle sellers), medicine men, herb sellers and Bokarwals (a nomadic tribe). All relevant informations about local names of plants or crude drugs, medicinal applications, plant part used, preparation methods and modes of administrations were recorded for each and every species. Interviews were supplemented by direct observations and field reports. The specimens of crude drugs and plants were collected and authentically identified (Stewart, 1972, 1982; Nasir and Ali, 1970-2002), their voucher specimens (marked as ISL) were prepared

and deposited in the herbarium of Quaid-e-Azam University, Islamabad, Pakistan. The ethnobotanical informations collected were cross checked with available literature about ethnoveterinary medicinal uses of plants (Muhammad *et al.*, 2005; Shinwari and Khan, 1999; Akhtar, 1988; Akhtar *et al.*, 2000; Akhtar and Ahmad, 1992; Anonymous, 1993; Jost *et al.*, 1996; Porth, 1994; Peacock, 1996; Hammond *et al.*, 1997).

#### RESULTS

Here in enumeration, plants are listed in alphabetical order by their botanical name with family, local name (between parentheses), place of collection, voucher specimen number (ISL) and ethnoveterinary medicinal uses.

**Albizzia lebbeck (L.) Benth. (Syn: Mimosa lebbeck L.) Mimosaceae, (Siris), Jabbar ISL. 44:** Its bark decoction prepared with Ajwain (*Trachyspermum ammi* (L.) Sprague. Apiaceae) and Sorkaara (*Commelina bengalensis* L. Commelinaceae). and given to cure chronic diarrhoea and dysentery in sheep and cow. Its seeds crushed with Hari booti (*Ajuga bracteosa* Wall. and Benth, Lamiaceae) roots are useful for snake bite.

**Abutilon theophrasti Medic. (Syn: A. avicinnae Gaertn.) Malvaceae, (Khatpat), Jajooha, ISL. 64:** The root decoction is used in ephemeral fever.

**Acacia modesta L. Mimosaceae, (Phulai), Sarnaila, ISL. 34:** The bark decoction, mixed with hot ghee (Butter) is fed to buffalo and cow for easy delivery and release of placenta (after birth) soon.

**Achyranthes aspera L. Amaranthaceae, (Putkanda), Jabbar, ISL.23:** The inflorescence of plant is used to remove ectoparasites from the cattle; while leaf crushed with oil of Sarsoon (*Brassica campestris* L. Brassicaceae) are applied as repellent of ectoparasites.

**Adhatoda vesica L. Acanthaceae, (Baikar), Garan, ISL. 112:** The decoction of root and leaves is given orally to calves for elimination of intestinal worms as anthelmintic. The ash mixed with oil of Sarsoon (*Brassica campestris* L. Brassicaceae) is applied to cure hoofrots and rubbed on skin as insect (mosquitoes and flies) repellent.

**Adiantum venustum D. Don. Polypodiaceae, (Hansraj), Kakahar, ISL.75:** Its crushed parts as paste are applied on chronic tumors of various kinds for rapid healing.

**Agaricus compestriss L. (Syn: Psalliota compestriss (L.) Fr.) Agaricaceae, (Chattri), Boriu, ISL.83:** Its juice is prepared and used to bath animal to relief ephemeral fever.

**Ajuga bracteosa Wall. & Benth. Lamiaceae, (Hari booti), Chara, ISL. 192:** The decoction of whole plant mixed with sugar is given for relief of 'Takoon' (autumn fever).

**Allium cepa L. Liliaceae (Piaze), Bahien, ISL.36:** The soup of bulb with pepper and baking soda (Sodium bicarbonate) is given for stomach flatulence and indigestion.

**Azadirachta indica A. Juss. Meliaceae (Neem), Khairi, ISL. 45:** Its leaves and flowers mixed with banola (fodder cake obtained from *B. compestriss* L.) are fed for relief of fever and as refrigerant. It is useful as anthelmintic in goats, sheep and calves.

**Bauhinia variegata L. Caesalpiniaceae, (Kalyar), Gora, ISL.60:** Root decoction with meta soda (Sodium bicarbonate) is given for relief of severe constipation. Its leaves and flowers with flour of chana (*Cicer arietinum* L. Papilionaceae) are fed to cattle for chronic diarrhoea.

**Boerhavia diffusa L. Amaranthaceae, (Sannati), Kass, ISL. 56:** The whole extract is used with raw sugar to cure stomach disorders, while leaves are boiled and used to bath cattle to cure skin diseases.

**Bombax ceiba L. Bombacaceae, (Simbal), Dhairy, ISL. 78:** Its flowers are crushed and mixed with crude kund (sugar) and given for relief of sciatica (leg pain in which legs tremble and animal cannot walk, mostly in winter season).

**Brassica compestriss L. Brassicaceae, (Sarsoon), Jabba, ISL. 87:** Its oil mixed with ash of Barami booti (*Centella asiatica* L. Hydrocotylaceae) is used as massage on neck of oxen used for yoke and its cake of seeds is used to increase milk production in cattle.

**Bryophyllum pinnatum (Lam.) Oken. Crassulaceae, (Zakham i hayat), Bela, ISL.32:** Its leaves are roasted and applied on wounds, boils and insect sting for quick relief.

**Butea monosperma (Tamk) Taiber. Fabaceae, (Chichara), Pir tattoo, ISL.76:** Its leaves mixed with leaves of Phulai (*Acacia modesta* Wall. Mimosaceae) and Damen (*Grewia oppositifolia* Drum ex. Burette Tiliaceae) are given to cattle to increase milk production.

**Calotropis procera (Willd.) R. Br. (Syn: Asclepias procera Willd.), Asclepiadaceae, (Desi aak), ISL.33:** The plant latex is applied on snake bite point to lessen poison. The leaves and flowers are crushed and mixed with gur (crude sugar) and given cattle to cure flatulence and improve appetite and digestion. The root powder is mixed with oil of. Kali Sarsoon (*Brassica compestriss* L. var. *rapa*. Brassicaceae) and is applied on mad dog bitten part of cattle to get relief of rabies disease.

**Cannabinus sativus L. (Syn: C. indica Lam.) Cannabaceae, (Bhang), Samahni, ISL.55:** The infusion of inflorescence is prepared with Saunf (*Foeniculum vulgare* Miller, Apiaceae) and kala namak (salt having chloride and sulphate) and given orally to treat measles and flatulence. The leaves extract is used as anti lice to kill ectoparasites.

**Capsicum annum L. Solanaceae, (Surkh Mirchi), Baghicha, ISL. 53:** The fruit are used as superstitious, to cure effect of bad eye, usually 5 or 7 fruits are rounded over body of cattle and then thrown into fire, if it give no chilling smell, it means the cattle is victim of bad eye effect, so some fruit with ghee (Butter), adrak rhizome (*Zingiber officinale* Rosc. Zingiberaceae) and lehsan (*Allium sativum* L, Liliaceae) bulb are mixed and given orally to cure its effect. Its green fruit with table salt and gur (crude) sugar is given for stomach disorders.

**Carissa opaca Stapf. Apocynaceae, (Garanda), Tarakar, ISL. 88:** Its ground root is mixed with pericarp of mango (*Mangifera indica* L. Anacardiaceae) in water and used as wormicide of intestine. Its leaves are crushed with honey and fed to give relief of Mokahar (in which foot and mouth become wounded and animal can't walk and eat normally) disease.

**Cedrella toona Roxb. Meliaceae, (Toon), Kahoo, ISL. 51:** Its bark is with Methi (*Trigonella foeniculum* L., Fabaceae) seeds are mixed with yogurt and given orally to cattle and sheep for chronic diarrhoea and dysentery.

**Centella asiatica L. Hydrocotylaceae, (Barami booti), Bari dahari, ISL. 77:** Its root decoction is used to bath animals for skin diseases. And its dried stem and root with sugar and bone of lion are used to give smoke to provide relief of broken leg pain and prompt repair.

**Chenopodium album L. Chenopodiaceae (Bathu), Daravani, ISL. 64:** The decoction of whole plant with Mokari (*Solanum surrattense* Benth. Solanaceae) is

prepared and given orally to cure measles and skin diseases.

**Citrullus colocynthis Schard. Cucurbitaceae, (Tuma), Soona, ISL.59:** Dried plant is burnt and its soot is mixed with oil of Sarsoon (*Brassica campestris* L) and applied as paste particularly, to cure the shoulder's sores of oxen due to yoke and generally to treat all types of wounds in cattle. It crushed vine is used as anthelmintic.

**Citrus limon (L.) Burm.f. Rutaceae, (Bara nimbo), Tati, ISL. 121:** Its fruit juice is mixed with powdered seeds of Saunf (*Foeniculum vulgare* Miller. Apiaceae) and roasted table salt in oil that is given for prolapse of uterus in buffalo and cow.

**Clematis grata Wall. Ranunculaceae, (Balieri), Jarali, ISL. 11:** Leaves and flowers of plant are crushed and given orally to cattle to cure of rinderpest effects.

**Conyza Canadensis (L.) Cronquist. Asteraceae, (Chiti booti), Tand, ISL. 70:** Its extract is used as having astringent, diuretic and stimulant properties, with raw sugar is used to reduce flatulence in stomach disorders.

**Cuminum cyminum L. Apiaceae, (Zera), Panyasi, ISL. 80:** Its seeds with Jamahan (*Brassica rapa* L. Brassicaceae) seeds are roasted and given as bread for prolapse of uterus before delivery in cows and buffalos.

**Dalbergia sisso Roxb. Papilionaceae, (Tali), Tarik, ISL.76:** Its leaves are boiled and given to animals for bilious disorders.

**Datura alba Nees Solanaceae, (Datura), Dahairy, ISL. 90:** Its two or three fruit are given to young cow or buffalo to initiate its heat for sooner fertilization and pregnancy, while its root powder with piaz (*Allium cepa* L.) bulb extract and kala namak (salt with chloride and sulphur) is given for snake bite relief.

**Euphorbia prostrata L. Euphorbiaceae, (Dodai), Chara, ISL. 66:** Leaves decoction is given to kill intestinal worms in calves.

**Foeniculum vulgare Miller. Apiaceae, (Saunf), Kahoo, ISL.54:** Its fruit mixed with crude sugar (gur) is used as purgative, anthelmintic, specific for tape worm killer. It is also given in combination with other recipes for increase of appetite and in stomach disorders.

**Grewia asiatica L. (Syn: G. subinaequalis Parker.) Tiliaceae, (Falsa), Tera, ISL. 50:** Stem bark is boiled in

water is given for prompt release of afterbirth in cattle and its leaves are boiled with Ajwain (*Thymus serpyllum* L., Apiaceae) seeds and given orally for easy delivery. The root pounded in water is applied externally to hasten suppuration and as dressing for wounds and broken bones.

**Gymnosporia royleana (Wall.) Lawson. Celasteraceae, (Pataki), Naka, ISL. 99:** Root decoction is used to cure enlarged spleen pain, in calves. In folklore farmers insert its thorn into tail of young calves and beat it by leather shoe slowly for seven times, while holding breath and the animal get well soon.

**Linum usitatissimum L. Linaceae, (Alsi), Chara, ISL. 212:** Its seeds mixed with Barre (*Gossypium hirsutum* L. Malvaceae) are fed to cattle to increase milk and butter yield. Its seeds roasted with pericarp of Behra (*Terminalia bolerica* Roxb. Combretaceae) in desi ghee (Butter) are given to treat Bahee (a disease like leprosy; in which one side of animal cannot work and so it becomes handicapped).

**Mallotus philippinensis (Lam.) Muell. Arg. Euphorbiaceae, (Kamela), Jahangar, ISL.103:** Fruit of plant is used as antihelmintic and anti nematodes in calves and goats; because due to these worms animal become weak and stop taking feed, so tribals use this recipe commonly. Its inflorescence mixed with Noshadar (Ammonium sulphate salt) is used as (bate) pesticide, to kill wolves and foxes.

**Melia azadarach L. Meliaceae, (Darken), Poona, ISL. 220:** Seeds are crushed and mixed with milk and given to cattle to cure fever and seasonal cough and increase appetite by lessening stomach flatulence and killing (helmintic) worms. Its leaves paste is applied on head and neck for relief of ephemeral fever.

**Momordica charantia L. Cucurbitaceae, (Kareela), Bahein, ISL.75:** Whole plant infusion with Keala (*Musa paradisiaca* L.) leave's is latex is given to cattle to treat autumn season fever.

**Momordica dioca Roxb. Cucurbitaceae, (Jangli Kareela), Pir juju, ISL. 77:** Its powdered root is used to stop bleeding and rapid healing of boils and wounds. Its powder or infusion when introduced to nostrils produces a powerful errhenic effect and discharge from schneiderian mucous and some infusion inhaled into cattle for quick relief of lung infection.

**Morus nigra L. Moraceae, (Toot), Bandi, ISL.14:** Leaves crushed with kala namak (salt containing chloride and sulphate) are fed to cattle to initiate (heat) sex desire for fertilization and farmers often do it to make buffalo and cow as pregnant for prompt profit by sale of these cattle. The decoction of young leaves with bajra (*Pennisetum americanum* (L.) Schum. Poaceae.) is used to treat diarrhoea in cattle.

**Musa paradisiaca L. Musaceae, (Kaila), Khairi,' ISL. 17:** Leaf extract is given to cure seasonal fever, while its raw pieces of leaves are given to freshly fertilized buffalo and cow to stabilize the pregnancy. It is very commonly used as folklore tonic for enhancing stabilisation of pregnancy.

**Phoenix dactylifera L. Arecaceae, (Khajoor), Kakhar, ISL. 89:** Leaves are burnt and soot is dissolved in hot water with some table salt and applied on mouth to cure wounds (rainy season sores) for goats and calves.

**Pinus roxburghii Sarg. Pinaceae, (Chir) Tonin, ISL.91:** Resin of Pinus is used as plaster to boboes and abscesses for suppuration. Its burnt wood (ash) and oleo-oil is applied to wasp and snake sting for rapid relief. Resin is pasted on wounds and broken horns to avoid germs infection and leaves extract is poured in wounds to heal wounds promptly.

**Phyllanthus acidus (L.) Skeel. Euphorbiaceae, (Chalmeri), Tandar, ISL. 154:** Leaves and roots are crushed and used as antidote to viper venom bite.

**Phyllanthus niruri L. Euphorbiaceae, (Dodia), Tahand, ISL.113:** Its juice is applied on sores, powdered roots and leaves are applied on ulcers and swollen parts.

**Populus caspica Borm. Salicaceae, (Safeda), Tati, ISL.63:** Its young shoots with seeds of poosat (*Papaver somniferum* L. Papaveraceae) are crushed together and given with hot milk to cure haemorrhoids.

**Putrangiva roxburghii Wall. Euphorbiaceae, (Potrinjiva), Islam pura, ISL. 132:** Its fruit stone is used to make a garland that is put around neck of beautiful cattle to avoid from bad eye effect.

**Prunus persica L. Rosaceae, (Aroo), Dab jabber, ISL. 35:** Its leaves are crushed and pasted on wounds to kill infested worms and germs.

**Ricinus communis L. Euphorbiaceae, (Narooli), Azam khar, ISL.21:** Seed oil mixed with decoction of Jaman

(*Cordia obliqua* Willd. Boraginaceae) leaves and are given to cattle for constipation problems and increase appetite. Its leaves extract with Damen (*Grewia* sp) bark fiber and fruit is frequently used for prolapse of uterus and easy delivery and to hasten release of afterbirth in buffalo. Its leaves decoction is used to cure mange in goats.

**Sassuria heteromala (D.Done.) Hand. Asteraceae, (Bari kori), Kahoo, ISL. 65:** The seeds are carminative for horses and also considered cure for horse bite.

**Sorghum halepense (L.)Pers. Poaceae,(Barron gass) Chattar, ISL. 187:** Root decoction is mixed with mud of pound and pasted on teats of cattle to cure Mastitis (swollen mammary glands), while Kalar booti (*Trichodesma indica* (L.)R.Br. Boraginaceae) is hung in middle of door of cattle-room and buffalo and cow pass in and out under it, it is believed that as soon as mud-paste and this plant dry, the mastitis diminishes subsequently.

**Taraxacum officinale Weber. Asteraceae, (Handd), Jabba, ISL. 98:** The whole plant is fed to cattle and goats with leaves of Phulai (*Acacia modesta* Wall.) to increase the milk production.

**Trichodesma indica (L.) R.Br. Boraginaceae, (Kalar booti), Metaan, ISL. 03:** Its root decoction is used against snake bite poison while it leaves poultice is effective against inflammation and swellings. It is also used to cure mastitis in combination with other plant.

**Viola kashmiriana W. Bkr. Violaceae, (Banafsaha), Kooli dhaki, ISL.143:** The bruised herb is applied on scores and ulcers while it boiled in milk and honey is used to cure bronchitis and soon healing of swollen mouth and foot disease called 'Mokhar', (a viral infectious disease with eruption of mouth and foot) in sheep, goats and cattle. As some times its flowers with garanda (*Carissa opaca* L. Apocynaceae) leaves are fed to cattle while holding the breath, for seven days as folk lore tonic to cure Mokhar disease.

## DISCUSSION

Pakistan being rich in indigenous herbal resources, offer a great scope for ethnobotanical and ethnopharmacological studies. As people of the valley are mainly dependent on agriculture and forest products for their daily life necessities. The surrounding plants for these people form an integral part of their culture and information about the plants get pass on from generation

to generation only through oral folk lore, major way of learning and teaching ethnomedicinal (EM) knowledge.

The present enumeration presents informations on 54 indigenous plant species of 38 families, used as traditional veterinary phytotherapy for control and treatment of various livestock diseases by rural inhabitants of Samahni valley, Azad Kashmir. This research article (ethnoveterinary recipes) presented here is based on information collected from native ethnic tribes. Among some interesting folklore uses of plants are as: for avoiding bad eye effect *Calotropis procera.*, *Capsicum annum*, *Putrangiva roxburgii* are commonly used, to treat snake bite *Calotropis procera*, *Phyllanthus acidus*, while for enhancing sexual desire and maintaining pregnancy *Musa paradisiaca* *Morus nigra* and *Datura alba* are common tonics of villagers. *Melia azadarach*, *Mallotus philippinensis*, *Carissa opaca*, *Euphorbia prostrata*, *Azadirachta indica*, *Citrullus colocynthis*, *Foeniculum vulgare* are used as ant helminthic and ant nematodes and perish other worms of intestine and *Gymnosporia royleana*, *Linum usitatissimum*, *Bombax ceiba*, *Butea monosperma*, *Linum usitatissimum* are used, for Bahi (leprosy type) disease, to cure mastitis (swollen teats-mammary glands) *Sassuria heteromala*, *Trichodesma indica* are useful. *Cuminum cyminum*, *Ricinus communis*, *Citrus limon* are effectively used for prolapse of uterus and easy delivery in buffalo and cow, while *Centella asiatica*, *Chenopodium album* are useful in skin diseases and *Viola kashmiriana*, *Carissa opaca* are used in folklore remedies for treating Mokhar (a viral disease of mouth and foot).

As ethnobotanical research has made it possible to discover some active constituents from medicinal plants, so these interesting ethnomedicinal findings can be research provoking for future. Ethnobotanical knowledge is under severe pressure of urbanization, expanding agricultural demands and acculturating trend of village people. Due to urbanization, availability of modern day facilities and mostly transferred by oral means ethnomedicinal knowledge inevitably can be lost in future years, so it is paramount need of hour to collect and systematically document this precious and empirical folklore knowledge and pay due consideration to protect and conserve wild medicinal plants. Ethnobotanical knowledge should not be under-estimated; as it not only records the traditional medicinal uses of plants but also helps in singling out medicinal plants and provides possible indications for further pharmacological and phytochemical research. Thus, not only it can lead towards discovery of new drugs by splitting single active constituents from medicinal plants with use of relevant

chemotaxonomic data and particular expertise methodological procedure but also can be helpful in pointing out toxic aspects of some plants that cause poisoning. So this ethnomedicinal exploration data can be used effectively at local and regional level to protect and preserve some precious, valuable and endangered species of plants to explore new medicines, as documentation of such type of knowledge can be basis of precious source of pure and applied science in future.

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