



## GLYMPSES ON ETHNO-VETERINARY PLANTS OF KARAULI DISTRICT –RAJASTHAN

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Ethnobotanical studies on utilization of plants by the rural folks including has gained much importance in the recent past all over the world. Ethnobiology which deals with study of human ecology and have great significance for welfare of human beings and animal world the tribals and different ethnic groups throughout the world have developed their own culture, customs religious and getting knowledge about the medicinal uses of plants to treated several ailments and diseases with herbal veterinary medicines. In the present study important information have been collected on Ethno-veterinary which is being adopted by local people and tribals of Karauli.

**Keywords:** Ailments; Ethnic; Ethnobotanical; Ethnoveterinary; Folks; Veterinary

### Introduction

The bridge between botany and traditional knowledge regarding medicinal aspects of plants is referred to as medicoethnobotany. Rigveda and Atharvaveda which dates back to 2000-1000 Bc. And several post vedic Treatise viz. Charak Samhita, Sushruta Samhita, Dhanvvantri Nighantu. Raj Nighantu to name a few are important ancient source of information and medicinal plants. Herbal medicines are in great demand in both developed and developing countries in primary healthcare because of their great efficacy and little or no side effects. The tribals and rural population of India are highly dependent on medicinal plant therapy. The information on Veterinary medicine in Rajasthan is very limited<sup>1-4</sup>.

The main occupation of Meena tribe in this district is agriculture lands. Animal husbandry is second largest occupation of Meena tribe because of agriculture resources. Cows, Buffalos, Goats, Sheeps, Bullocks, Camels and Dogs are form in domestic animals in this region. The tribal people mostly depend on forest and forest products for their needs and have sufficient knowledges about herbal medicines. Plant used and applied by tribals for treating their various types ailments.

### Materials and Methods

- (A) Discussion with villagers of Meena tribes about different ethanobotanical aspects.
- (B) Interviewing with Vaidya to know about ethno medicine.

**Table 1.**

S. No.	Local Name	Botanical Name	Family	Ailment	Method of treatment
1.	Ratti	<i>Abrus precatorius L.</i>	Papilionaceae	Lack of Estrus  Sexual excitement	Seeds are crushed and soaked in water over night and given orally in next morning for three days regularly. Crushed fruits of this plant which are given in Chapati to horses for sexual excitement.
2	Ronz	<i>Acacia leucophloea (Roxb.) Wild</i>	Mimosaceae	Lack of Estrus	Crushed stem bark is soaked in water overnight and given orally
3	Satyanasi	<i>Argimone Mexicana</i>	Papaveraceae	Protrusion	100 gm roots of displant taken and mix with cow milk and prepare the paste and given orally for three days.
4	Babool	<i>Acacia nilotica (L) del. Subsp. Indica (Benth.)</i>	Mimosaceae	Immunization  Inflammation  Galactagouge	Seeds and fresh fruits pounded and given orally with water for seven days. Fresh unripe fruits given orally with grass for three days. Crushed leaves given orally with fruits of <i>Acacia nilotica</i> daily for a week.
5	Oonga	<i>Achyranthus aspera L</i>	Amaranthaceae	Cramps	Oonga in equal quantity, powdered and given to cattle in hot water twice or thrice in day.
6	Adsuta/ Basouda	<i>Adhatoda vasiaca</i>	Acaanthaceae	Cough and Cold	Juice of leaves or hot water extract given orally (as expectorant) twice a day for three day.
7	Ardu	<i>Ailanthus excels Roxb.</i>	Simaroubaceae	Swelling	Boiled and cooled decoction of stem bark and given orally in the night for 3 days
8	Garlic / Lahsun	<i>Allium sativum</i>	Liliaceae	Fever and cough Dog bite	Bulb crushed and given orally twice a day for seven day. Bulbs are given orally for three days.
9	Pyaz	<i>Allium cepa</i>	Liaceae	Pnemonia	100 gm onion, 100 gm garlic and 5gm red chilies are crushed and mixed with 200 gm gur and pickle of mango this mixture is added with 100 gm common salt and 2gm heeng and given orally to cattle.
10	Sitaphal	<i>Annona Squamosa L.</i>	Annanoceae	Wounds  Insect bite	Paste of fresh leaves tied extremely for 3 days. Paste of fresh leaves tied externally for 3 days.
11	Satavari	<i>Asparagus racemosus</i>	Liliaceae	Galactagogue / Lactation	The dried root and fruits or all plant with jiggery given orally as a fodder.
12	Hingota	<i>Balanites aegyptiaca L.</i>	Balanitaceae	Haemorrhages	Crushed roots are soaked in water over night and given orally in next morning in fasting.

13	Santi	<i>Boerhavia diffusa L.</i>	Nyctaginaceae	Liver dysfunction Urinary tract infection	Root powder given orally in fasting daily for a week. Aerial parts of plants given orally for grazing.
14	Safed Aak	<i>Calotropis gigantea L.</i>	Asclepiadaceae	Swelling	Heated leaves are applied locally three time a day for three days.
15	Amaltas	<i>Cassia fistula</i>	Caesalpiniaceae	Diarrhoea  Dysentery	Stem bark crushed and soaked overnight given orally in next morning for 3 days. Pounded fruits powder given orally with cold water twice a day for 2 days. Pulp of fruits given orally.
16	Kasondi	<i>Cassia occidentalis L</i>	Caesalpiniaceae	Bone fracture  Foot and Mouth disease	Leaves crushed with egg. Albumin and goat milk, applied externally over fractured area (organ). Fresh leaves locally used for seven days.
17	Panwar	<i>Cassia tora</i>	Caesalpiniaceae	Galactagogues	Crushed seeds are soaked overnight. Given orally in the next morning for fifteen days.
18	Jangli jeera	<i>Centratherum anthelmerticum (Willd)</i>	Asteraceae	Abdomen pain	Crushed seeds given orally twice a day
19	Bijoura Neebu	<i>Citrus maxima L</i>	Rutaceae	Emetic  Abdominal pain	Fruits given orally for emetic when ingestion of iron objects by the cattle. Powder of fruits mixed with black salt or common salt
20	Jal Jamni	<i>Cocculus hirsutus (L)</i>	menispermaceae	Galactagogues	Whole plant for chewing.
21	Kana gokna	<i>Commelina benghalensis</i>	Commelinaceae	Eye problems	Leaf extract drop used three time in a day.
22	Kali Musali	<i>Curculigo orchioides</i>	Hypoxidaceae	Eye problems	Tuber juice dropped in open eye 2-3 time in day.
23	Dhatura	<i>Datura stramonium L.</i>	Solanaceae	Diarrhoea Lack of estrus	Frits given orally for three days. Warmed fruits and seed powder given orally for three day.
24	Bhringraj /Bhangara	<i>Eclipta prostrate L.</i>	Asteraceae	Swelling	Paste of fresh leaves used locally twice a day
25	Dandath ore	<i>Euphorbia nerifolia L</i>	Euphorbiaceae	Mastication problem	Paste of aerial parts given orally to the cattle's when they stop mastication
26	Gular	<i>Fricus racemosa L</i>	Moraceae	Galactagogues	Fresh fruits given orally for seven days.
27	Ratan Jot	<i>Jotropa gossypifolia L.</i>	Euphorbiaceae	Injury	Locally applied the paste of roots.
28	Mahndi	<i>lawsonia inermis L</i>	Lythraceae	Pain  Inflammation	Leaves crushed and make the paste apply locally for three days. Paste of seeds mixed with Gholva and given orally.

				heat in Body Sure conceiving	Extract of Leaf mixed with cow milk and given orally. Fresh leaves taken and paste of its mixed with wheat floor and given orally to cattle (Buffalo or cow) after sexual inter course of get sure conceiving.
29	Gheeya Torai	<i>Luffa cylindrical L</i>	Cucurbitaceae	Dyspepsia	Smoke inhaled of the fibrous dry mesocarp of the fruits of the fruits.
30	Bans	<i>Bamboosa arundinaceae</i>	Poaceae	Easy delivery	Fresh branches or stem of this plants cuts and collect the water of this plant given to pregnant buffalos during child birth.
31	Neem	<i>Azardirecta indica</i>	Meliaceae	Loss of appetite Expulsion of Worms	Leaves extract given orally twice a days. Fresh leaves & barks taken in equal quantity and prepare decoction and given to calf for expulsion of worm.
32	Bakaen	<i>Melia azadirach L</i>	Meliaceae	Loss of Appetite Sprain & Fracture	Paste of fresh leaves given orally twice in a days. Fresh leaves taken and warmed and tied directly on affected area.
33	Sahajana	<i>Moringa oleifera L</i>	Moriginaceae	Rhumatism	Bark crushed and soaked in water over night next morning given orally.
34	Kaunch / Kouch Phali	<i>Mucuna Pruriens L.</i>	Fabaceae	Vermifuge	Pod's hairs given orally as a single dose.
35	Kela	<i>Musa paradisiacal L</i>	Musaceae	Diarrhoea	Fresh leaves given orally twice a day for three days and frits given also.
36	Har Singar	<i>Nyctanthes arbor – Tristis L</i>	Nyctanthaceae	Vermifuge	Fresh leaves given orally in the morning
37	Arand	<i>Riccinus cummunis L.</i>	Euphorbiaceae	Vermifuge	Fresh leaves given orally for a weeks
38	Kharanti	<i>Sida ovata</i>	Malvaceae	Rhematism	Stem bark crushed and soaked in water over night and given orally next morning.
39	Brihati / Badi Kateri	<i>Salanum surrattanse</i>	Solanaceae	Rhematism	Fresh leaves given orally for three days.
40	Guduchi	<i>Tinospora crdifolia</i>	Menispermaceae	Blood purification Loss of appetite	Stem bark crushed and soaked in water over night and given orally next morning. Stem powder given orally daily in diet.

(C) Enquiry from oldmen about the ethano-medicines.

(D) Interviewing with district forest officer at Karauli.

Mode of contact to collect the important and valuable information from

tribals :

First of all efforts were made to established proper contact with head men or the Sarpanch of the village and oldmen along with the guide in the concerning area for discussion.

Enquiring from old men about the ethno-medicines.

Interviewing with district forest officer at Karauli.

Ethnobotanical data was collected along with various in different manners by enquiry, observations, interview, approach like through available literature, library herbaria on one hand and through Vadhyas, Hakims, Ojha and Homeopaths, Veterinary doctors.

### **Description and observation of plants used and applied by tribals for treating their various types of ailments**

During the present study important information have been collected on Ethnoveterinary which is being adopted by local people and tribals of Karauli district and these herbal plants were identified with the help of various flora and Herbaria of RUBL Jaipur.

The tribal people mostly depend on forest and forest products for their needs and have sufficient knowledge about herbal medicines. Tribals cure their domesticated animals by house hold materials and plant material which are found around them. In addition to Ethnoveterinary medicinal knowledge some important plants are being described below which are used and applied by tribals for treating the various types of ailments (Table-1).

### **Discussion**

During 1570 to 1575 Francisco Hernandez in his capacity as the personal physician to King Philip II of Spain undertook in Mexico the survey on the flora, fauna and minerals of this country. This monumental work is considered as an earliest scientific endeavour of ethnobotanical nature<sup>5</sup>. Past and present interrelationship of human societies and the surrounding plant wealth to resulted to promote the study of ethnobotany throughout the world. The present

investigation related with the ethnobotanical importance of plants growing in Karauli district has drawn our attention in the light of studies already carried out on the flora of Karauli district<sup>6</sup> which is earlier part of Sawai Madhopur district wherein the author has discussed the entire flora in detail.

A substantial work has been done on different medicinal plants in Rajasthan<sup>7-13</sup>. Ethnobotanical information is available throughout the world in the literature<sup>14</sup> However, studies related to ethnobotany in India have received due attention in the last two to three decades<sup>15-21</sup>, Moreover sporadic ethnobotanical information is available from Rajasthan<sup>22-28</sup>.

Some plants used for the purpose of veterinary diseases in the district are as followed: *Abrus precatorius*, *Acacia leucophloea*, *Amaranthus tricolor*, *Balanites aegyptiaca*, *Boerhavia diffusa*, *Calotropis gigantia*, *Cassia tora*, *Datura stramonium*, *Euphorbia nerrifolia*, *Jatropha gossypifolia*, *Mucuna pruriens* *Ricinus communis*, *Tinospora cordifolia* and *Zizyphus nummularia*, *Argimone Maxicana*, *Acacia nilotica* (L) del. Subs. *Indica* (Benth.), *Achyranthus aspara* L, *Adhatoda vasiaca*, *Ailanthus excelsa* Roxb., *Allium sativum*, *Allium cepa*, *Annona Squamosa* L., *Asparagus racemosus*, *Cassia fistula*, *Casia accidentalis* L, *Centratherum anthelmerticum* (Wild), *Citrus Maxima* L, *Cocculus hirsutus* (L), *Commeling benghalensis*, *Curculigo orchioides*, *Eclipta Prostrata* L, *Ficus Racemosa* L, *Jatropha gossypifolia* L. and *Lawsonia inermis* L.

Present investigation “Ethnobotanical studies of some medicinally important plants of Karauli district (Rajasthan)” aims to bring out the inter-relationship of the flora and tribal people of the district viz. Meena, Nomadic tribes viz.

Gadia Lohar, Banjara, kalbelia, Kanjar, Bhat, Sansi, Nut, Bauri and Bagri based on field surveys of various tribal villages and localities of Karauli district of Rajasthan.

Animal husbandry is done by every kind of tribal people. Goat, sheep, buffaloes, cows, camels, dog and donkey are the main cattle of this area. Tribals of the area use more than 70 plant species for treating their domestic animals. *Achyranthus aspera*, *Annona squamosa*, *Acacia nilotica*, *Adhatoda zeylanica*, *balanites aegyptica*, *Boerhavia diffusa*, *Cassia tora*, *Cassia fistula*, *Citrus maxima*, *Datura stramonium*, *Dicrostachys cineraria*, *Eclipta prostrate*, *Gamphrena celosioides*, *Jatropha gassypifolia*, *Melia azedarach*, *Moringa oleifera*, *Ocimum canum* *Pedaliium murex*, *Riccinus communis*, *Solanum surattense* *Trigonella foenumgrecum*, *Zizyphus mauritiana*, etc. are important plant species used as ethnoveterinary medicine.

### Conclusion

The present study reveals that the plant resources of Karauli district are quite rich for using raw materials needed for establishing and developing plant based small scale industries for making fibers, baskets, hand fans, brooms, musical instruments, timber, domestic articles, collection of herbal drugs etc. Moreover, plants of ethnomedicinal value need to be investigated for pharmacological activity on the basis of ethnotherapeutics being practiced by ethnic groups for their safe use after having clinical trials. This will be certainly very much helpful in evolving new sources of herbal drugs for pharmaceutical industries. Such an effort will provide employment in the area for economic upliftment.

The observations and findings made under present investigation reveals that the ethnic groups and local people of the area

are highly dependent on the natural plant resources surrounding their vicinity and these plant resources not only for shelter building, timber, food, famine food, fodder, fiber, fuel, gums and resins, brooms, beverages, musical instruments and ceremonies but also for curing a wide range of human and veterinary diseases and other disorders. These multiracial uses of the rich plant wealth available in the district warrant the identity and establishment of small scale industries in the region for the economic upliftment of tribal and rural population of remote areas of the district.

Most of the people of this district are dependent on agricultural crops as the major area of land is barren. Hence for generating avenues for employment it is necessary to make a proper and scientific use of the ethnobotanical resources indentified in the text under present investigation.

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