

Ethno-Veterinary practices among tribes of Nandurbar District (MS) India.

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Abstract

An ethno veterinary study was carried out in the tribal's of Nandurbar district (Budnamel, Keran, Karnah, and Jungand) during 2017-2019. The study was aimed to document the traditional folk knowledge of local people about the use of the medicinal plants as ethno veterinary. Field survey was conducted during the different seasons of the year to collect data about the knowledge and practice of using wild plant species by local people as ethno veterinary. The data collected reveals that about 24 plant species belonging to different families and genera are used as ethno veterinary. Plant parts are used to increase milk content and cure different diseases.

Keywords: Ethno veterinary, tribal's, the medicinal plants and Nandurbar district.

Introduction:

The traditional knowledge and resource management practices of the ethnic people should be applied in modern development strategies. Biotechnology uses traditional knowledge of the ethnic people with modern tools of genetic engineering to get the desired results (Anonymous, 1948-1976 , Gupta *et. al.*, 1982, Hassan *et al.*, 2013). Prof. R. E. Schulte has very rightly remarked "what interests us academically and practically is how to salvage some of the medico-botanical lore of the indigenous (ethnic) people before it should have been for ever entombed with the culture that gave its birth." Documentation of his relationship and interactions with the plants in a scientific way has become a prime need of time these days which is called as ethno botany (Cotton CM 1996). Ethno veterinary medicines is as system that is based on folk beliefs, traditional knowledge, skills, methods, and practices used for curing diseases and maintaining health of animals (Mathias E *et. al.*,, 1997 and Mir MY 2014).

Traditional veterinary medicine knowledge like all other traditional knowledge systems is handed down orally from generation to generation and it may disappear because of rapid socioeconomic, environmental and technological changes and as a result of the loss of cultural heritage under the guise of civilization (Hassan *et al.*, 2013, Kiran *et al.*, 1999, Kaul *et al.*, 1987).

Ethnobotany came into being when earliest man observed the animals eating certain plants, often to satisfy their hunger and at other times, to heal their wounds and get rid of their pains and sufferings (Nisha *et al.*, 2003). Thus on the basis of the uses of plants, first by animals and later by human beings, the concept of Ethnobotany and Ethnozoology emerged which merged to give birth to Ethnobiology (Anonymous, 1948-1976 and Hassan *et al.*, 2013).

Proposed research work on ethno veterinary plants are important to investigate because large study area (covering four districts) and also some of the plant entries which are not so far reported in the studies of earlier work (Deepa Galavi & Diwakar Sharma 2004). It is relevant to mention that study area is a very fertile area for ethno veterinary studies, mainly due to Rich diversity in flora, many ethnic group and very large sections of society still traditionally dependent on bio resources.

The Bhil, Gavit, Mavachi, Naik, Padvi Gamit, , Pawara, Tadavi, Valvi and Vasave are the various ethnic groups of the tribal people inhabit in the hilly regions of the region (M. B. Patil and P. A. Khan 2017a and 2017b). On the basis of the number of plants prescribed for their domestic animals by the various modes of administration work will be continued with stranded methodology of Ethno biological research (Dr. M. B. Patil, and Dr. Amanulla Khan 2020).

Materials and Methods:

During the visits ethno veterinary important plants collected in 5 sets from hilly areas of satpuda forest of Nandurbar district. All the specimens collected, numbered with field notes duly record in the fieldwork performa. Extensive and intensive tours of different localities especially the tribal villages and the hilly forest regions were undertaken in all seasons of the year. The tours will arrange in a phase manner so as to cover ethno veterinary important area of the North Maharashtra.

The collection and fieldwork have been done with the help of the following equipment. Field press, Vasculum, Knife, Cutter, Polythene bags, Field diary, Camera, Pencils, Pen, Rubber, Scale, Digger, Pocket lens, Drying sheets, News papers, Identity cards, Blotting papers etc. The field work comprised of collection of data including necessary ecological details and populations of domestic animals with their diseases based on first hand observation and information obtained in the field. This included informer name; his status; (tribe, caste, age, etc.) and details about the plant specimens like botanical names, local names, family and parts used (roots, stem, bark, leaves, flowers, fruits, seeds);

kinds of medicinal uses for each animals, methods of medicine preparation, mode of use, restricted hints.

In the laboratory the collections were properly dried by a number of changes of blotting or news paper, Poison with a saturated solution of mercuric chloride in alcohol. The plants were again placed in the dryer and pressed till they get completely dried and mounting on herbarium sheets have been done. These plant specimens were carefully and critically studied and identified in the laboratory consulting available floras and literature. The species were identified and classified mainly as per the Benthem and Hooker system of classification.

Finally work has been completed by statically analysis of all observations and data from each category of animal diseases and reporting of important findings in to reported journals with writing of thesis.

Result and Discussion:

The present study revealed that 24 plant species belonging to different families are used as medicine in the studied area to cure different livestock ailments each plant species is provided with the botanical name, family, part used and mode of administration.

Sr. No	Botanical Name	Family	Parts used	Uses
1	<i>Allium cepa</i> L.	Liliaceae	Bulb	A mixture of crushed bulbs and common salt is made into soft balls. These balls are widely used to stimulate the oestrus cycle in cows
2	<i>Aquilegia vulgaris</i>	Ranunculaceae	Whole plant	Extract of the whole herb is used against weakness in live stock and for increasing milk yield.
3	<i>Amaranthus caudatus</i> L.	Amaranthaceae	Whole plant	Increase milk content in cows
	<i>Annona squamosa</i> L.	Annonaceae	Leaf	The leaf paste is given to animals two times a day to cure cuts
4	<i>Artemisia absinthium</i> L.	Asteraceae	Whole plant	Extract of the whole herb is used to cure the liver infection in cattle's.
5	<i>Abutilon indium</i> (L.)	Malvaceae	Leaves	Leaf paste is applied over the spot of scorpion sting.
6	<i>Achyranthes aspera</i> L.	Amaranthaceae	Leaves	Leaf paste is applied on hands for protection from scorpion sting.

				Scorpion cannot bite if we apply the juice.
7	<i>Boswellia serratta</i>	Bursaceae	Leaves	The leaves are burnt and inhaled; the leaves are also applied on the bitten area.
8	<i>Bauhinia racemosa</i> Lamk.	Caesalpiniaceae	Root	The root decoction mixed with rice is given to cattle to prevent abortion, two times a day for 3 days
9	<i>Butea monosperma</i> (Lamk.)	Fabaceae	Stem bark	The stem bark decoction is given orally to swellings of cattle, two times a day for 2-3 days
10	<i>Caesalpinia bonduc</i> (L.) Roxb.	Caesalpiniaceae	Seed	The seed paste is given in evening for two days to kill worms in domestic animals
11	<i>Calotropis gigantea</i> (L.) R. Br.	Asclepiadaceae	Leaves, Root	The leaf and root paste are used for healing wounds in morning and evening till cure
12	<i>Cyperus rotundus</i> L.	Cyperaceae-	Tubers	Dried tubers are pasted and applied topically on bitten site of scorpion.
13	<i>Datura stramonium</i> L.	Solanaceae	Seeds	The seeds are crushed with the help of mortar and pestle and mixed with egg yolk and are given to cattle's to cure urinary bladder infections.
14	<i>Embllica officinalis</i> Gaertn.	Euphorbiaceae	Bark	The bark paste is used in healing of wounds in animals, two times till cure
15	<i>Euphorbia fusiformis</i> Buch.-	Euphorbiaceae	Root	The root paste is given orally to animals to cure dysentery and fever. Two times a day for 3 to 5 days
16	<i>Ficus hispida</i> L.f.	Moraceae	Root	The root paste is given in morning for one week in weakness
17	<i>Gymnema sylvestre</i> (Retz.)	Asclepiadaceae	Root	The root paste is applied on scorpion sting.
18	<i>Helianthus annus</i> L.	Asteraceae	Stem	Seeds are used as tonic for cattle and are highly energetic.
19	<i>Malva sylvestris</i> .	Malvaceae	Leaves	Crushed leaves are given to cows for increase milk production.
20	<i>Morus alba</i> L.	Moraceae	Leaves	The trees are lopped and used as fodder for the cattle's.
21	<i>Moringa oleifera</i> Lamk.	Moringaceae	Stem bark	The stem bark decoction is given to cattle in influenza, morning for 3-5 days
22	<i>Pueraria tuberosa</i> (Roxb. ex Willd.) DC.	Fabaceae	Tubers	The tubers are given to animals to increase the secretion of milk, morning for one week
23	<i>Tinospora cordifolia</i> (Willd) Hook. f. & Thoms	Menispermaceae	Whole Plant	The whole plant is cut into small pieces and given to cattle suffering from syphilis, morning for 3-5 days
24	<i>Vitex negudo</i> L.	Verbenaceae	Leaves	The leaf paste is used two times a day in healing of wounds in animals.

It has been recorded that very common weeds from the local forest of district are used by tribes to cure cuts, wounds, dysentery, and scorpion bite, to prevention of abortion and to increase milk production in domestic animals. These ethno veterinary practices in tribes reveals valuable informations of plants and their used for animals. About 24 different medicinal plants belonging to the different family has been recorded with their part used for medicinal use and to increase production of milk.

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