



SOME REPORTS ON TRADITIONAL ETHNO-VETERINARY PRACTICES FROM SAVARGAON AREAS OF ASHTI TALUKA IN BEED DISTRICT (M.S.) INDIA

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ABSTRACT

An extensive field surveys were arranged in Savargaon area for documentation of the traditional ethnobotanical knowledge hidden among the indigenous Bhil populace regarding the wild and endemic ethnoflora. The information presented here is being collected from the indigenous Bhils men having age above 50 years through verbal and informal interviews at their working places during 2007-2008. In this paper 24 plant species belonging to 17 families used by the Bhil tribals in their routine life has been reported in order to fill up the gap of ethnobotanical knowledge in these areas.

KEY WORDS: Ethno-veterinary, Savargaon, Traditional knowledge.

INTRODUCTION

Being a part and parcel of nature, man is utilizing wild plants for completion of his certain needs and necessities viz. food, medicine, fodder, agricultural tools, house construction etc since ancient times. It has been found that almost all the plants were in use by the traditional healers, hakims, vaidyas and ethnic societies of the world either as a food or as a herbal drug. Therefore it's our prime duty to document all these wild plants scientifically and investigate their economic importance. Since the last three to four decades considerable progress has been made in the field of ethnobotany due to recent explorations. Recently it has been realized that certain medicinal plants are going to play a very significant role in ethno-veterinary practices. These medicines are affordable, more effective, easily available and also able to fulfill the social and cultural needs of the rural, aboriginal and tribal people. Further these drugs have been prepared with the traditional eco-friendly methods and work selectively and gently without disturbing the other system as compared to modern synthetic drugs.

MATERIALS AND METHODS

This beautiful hilly landscape famous for its rich and diverse ethno-flora, Savargaon village is situated on the Northern side at a distance of 16 km from Ashti taluka in Beed district (M.S) India. It is located in between 19°13'38"N-19° 32'38"N latitude and 74°76'39"E-75°18'68"E longitude. The area under study is occupied by 38% of mixed type of vegetation and experiences an average rainfall of 338 cm/yr (Almeida, 2007). It remained

inhabited to some extent by the native Gosavis community that still relied partly on the ethno-flora for certain needs and necessities for curing specific livestock ailments. The collected ethnobotanical information from the inhabitants is documented and spread in nearby areas in order to understand the role and importance of the ethnobotanical knowledge in the life of inhabiting Bhil populace. Frequent field visits were arranged in the study areas during the period from pre-monsoon of 2009 to post-monsoon of 2010 to collect the data on ethno-veterinary uses of the wild ethno-flora used by the native Gosavi's community. The plant specimens were collected by knowing their vernacular names through the knowledgeable informants (Schulte 1962 & Jain and Rao 1967). The data on ethno-veterinary information was confirmed through the traditional healers from same community through verbal and informal interviews. The voucher specimens were prepared, tagged and confirmed by referring the standard floras such as Cooke 1967, Singh and Karthikeyan 2000, Pradhan and Singh 1999. They were preserved as per plan suggested by Jain (1989) in the Department of Botany, P.V.P. College, Pravaranagar for future study.

RESULT

The taxa described here are enumerated in tabulate form alphabetically according to their botanical name with family (in parenthesis) followed by vernacular name, plant part used and traditional ethno-veterinary uses. Unknown or less known ethnobotanical uses are marked with an asterisk (*) sign.

TABLE 1. Detailed analysis of the plant species with their traditional ethno-veterinary uses

Sl. No.	Botanical name	Vern. name	Part used	Traditional ethno-veterinary uses
1.	<i>Citrus limon</i> (Linn.) Burn. f. (Rutaceae)	Idlimbu	whole plant	*Aatpav pulp from fresh and semi-ripen fruit is with little amount of gur (jaggery) in 250 ml sheep's urine and the formulation is then fed to cattle and buffaloes twice a day for 2-3 days to digest iron nails and to remove polythene matter from stomach.

Traditional ethno-veterinary practices from Savargaon areas of Ashti taluka in Beed district

2.	<i>Capparis decidua</i> (Forsk.) Edgew. (Capparaceae)	Kiral	Leaf	8-10 fresh leaves, 4-5 Satab fresh (<i>Ruta graveolens</i>) leaves and 2-3 fresh Neem (<i>Azadirachta indica</i>) leaves are crushed in cow's urine and same extract is sprayed in and around the houses during rainy season to drive away fleas from the pet animals.
3.	<i>Cordia dichotoma</i> Forst. (Boraginaceae)	Bhokar	Fruit	A cupful juice from fresh and semi-ripen fruits is mixed with 1-2 tsp of sugar and the preparation is fed to sick goats and sheep twice daily up to 9-12 days to cure pneumonia.
4.	<i>Azadirachta indica</i> A.Juss. (Meliaceae)	Kadu-neem	Seed	Two to three tsp of oil from dried seeds is mixed in coconut oil and applied topically twice a day up to 6-8 days on the scalp of chicken to retain feathers.
5.	<i>Acorus calamus</i> Linn. (Arecaceae)	Vekhand	Root	A cupful of extract from fresh roots in luke warm water is given with a pinch of common salt is rubbed thoroughly on the body region of pet doves and parrots to eradicate lice.
6.	<i>Holarrhena pubescens</i> (Buch-Ham) Wall. (Apocynaceae)	Safed kuda	Stem bark	one tola fresh stem bark pieces are crushed in 1-2 tsp of cow urine and given orally twice a day for 2-3 days with 1-2 tsp of honey to arrest dozing sickness of chicken.
7.	<i>Aristolochia bracteolata</i> Lamk. (Aristolochiaceae)	Gindhani	Leaf	Two to three fresh leaves are crushed in a cupful of Erand (<i>Ricinus communis</i>) oil and the extract obtained is given internally 2-3 times in a day up to 8-10 days to drive away dermal diseases in cattle and dogs.
8.	<i>Asparagus racemosus</i> Willd. (Liliaceae)	Shatmul		Two to three tsp of root powder is mixed in about 150-200 gm of safflower cake and the mixture obtained is given twice a day for 12-15 days to the cattle to improve lactation period and quality in cows and buffaloes.
9.	<i>Balanites aegyptica</i> (Linn.) Diels. (Balanitaceae)	Hingan	Fruit	An extract from 4-6 fresh and unripe fruits and Kadu neem (<i>Azadirachta indica</i>) seed juice is mixed in a cupful of luke warm water to obtain homogeneous mixture which is used to improve sterility in pet cats and dogs.
10.	<i>Boerhaavia diffusa</i> Linn. (Nyctaginaceae)	Punarnawa	Leaf	Powder from a handful of fresh leaves is mixed with soyabean (<i>Glycine max</i>) seed powder and the mixture is fed to male goats and sheep once a day up to 18-21 days to improve sexual strength and vitality.
11.	<i>Boswellia serrata</i> Roxb. ex. Colebr. (Burseraceae)	Salai	Fruit	Five to six fresh young fruits, same amount of Ramfal fresh (<i>Anona reticulata</i>) seeds and 2-3 fresh Neem (<i>Azadirachta indica</i>) seeds are crushed in a cupful of sheep's urine to obtain extract which is fed to cattle once daily up to 5-8 days against mastitis.
12.	<i>Carissa congesta</i> Wight (Apocynaceae)	Karvand	Leaf	Two to three mase (aprox 2-3 gm) of leaf powder, same amount of Gondhan (<i>Cordia gharaf</i>) stem bark powder and a pinch of common salt are boiled in two to three glasses of water and the decoction is fed to the sheep and goats against helminthiasis.
13.	<i>Cuscuta reflexa</i> Roxb. (Convolvulaceae)	Amarvel	Whole plant	A cupful extract from entire plant parts in a litre of goat's milk is boiled for 5-6 minutes and the infusion is given internally to the patient twice a day for 7-9 days to arrest Q fever goats.
14.	<i>Madhuca langifolia</i> (Koen.) Mac.Bride. (Sapotaceae)	Mahua	Whole plant	150-200 gm of entire parts of the plant are crushed in a glassful of water and the extract obtained is fed to the cattle twice a day up to 3-5 days to improve musculature in oxen.
15.	<i>Clerodendron serratum</i> (Linn.) Moon. (Verbenaceae)	Ransut	Root	Aatpav (aprox.100 gm) powder from shade dried roots is soaked in half litre warm water overnight and the extract is boiled on next day morning for 3-4 minutes to obtain decoction which is applied externally on womb of cows once a day at night for 5-8 days to increase placental contraction during calving.
16.	<i>Euphorbia antiquorum</i> Linn. (Euphorbiaceae)	Tindhari	Root	An extract from aatpav young roots is boiled with a pinch of sunth (<i>Zingiber officinale</i>) rhizome powder, 1-2 tsp of Pimpli (<i>Piper longum</i>) seed powder and 4-5 Krishna-tulsi (<i>Ocimum tenuiflorum</i>) leaves in 250 ml of goat's milk to obtain decoction which is given with 1-2 tsp of honey to the children twice a day for 12-15 days to treat New castle disease of doves and chicken.
17.	<i>Cleome gynandra</i> Linn. (Capparaceae)	Safed Tilwan	Seed	An extract from a handful of dried seeds in a cupful of coconut (<i>Cocos nucifera</i>) oil is given orally twice a day up to 3-4 days to drive away intestinal worms in sheep.
18.	<i>Jatropha gossypifolia</i> Linn. (Euphorbiaceae)	Mogali Erand	Latex	Two to three tsp fresh latex and same amount of Mohari seed oil <i>Brassica campestris</i> oil mixed well and the mixture is applied topically on the body region twice a day up to 6-8 days to cure mange in oxen.

19.	<i>Celastrus paniculatus</i> Willd. (Celastraceae)	Malkangni	Leaf	An extract from aatpav leaves and same quantity shoots are boiled in half litre water is mixed with soyabean (<i>Glycine max</i>) seed oil and a little quantity of gur (Jaggery) and the formulation is fed to pregnant buffaloes once a day for 3-4 days to ease delivery.
20.	<i>Tephrosia perpurea</i> Pers. (Fabaceae)	Surpnakha	Root	A handful of fresh root pieces are boiled in 2-3 glasses of sheep's milk for 5-6 minutes and the remaining decoction is administered once daily up to 3-5 days to improve muscular strength in male goats.
21.	<i>Tinospora cordifolia</i> Miers (Menispermaceae)	Gulwel	Stem bark	Two to three tolas fresh and younger stem bark is boiled with 3-5 fresh Kadu-nimb (<i>Azadirachta indica</i>) leaves in two cups water for 1-2 minutes to obtain decoction which is mixed with certain quantity of Erandi (<i>Ricinus communis</i>) seed oil and the formulation is applied topically on the body region of dogs to cure ringworm disease.
22.	<i>Tribulus terrestris</i> Linn. (Zygophyllaceae)	Sarata	Root	An extract from a handful of fresh young roots in a cupful of goat's milk is mixed with Nilgir (<i>Eucalyptus globulus</i>) seed powder and Erand (<i>Ricinus communis</i>) root powder (one tsp each) and the resultant formulation is fed to goats and sheep once a day for 2-3 days to cure dysentery.
23.	<i>Vernonia cineraria</i> Linn. (Asteraceae)	Shahadevi	Leaf	A cupful of fresh leaf extract in warm water is boiled with jire for 2-3 minutes and administered orally once daily up to 15-18 days against dozing sickness of chicken.
24.	<i>Vitex negundo</i> Linn. (Verbenaceae)	Kali Nirgudi	Leaf	15-18 leaves are soaked in about 500 ml of cow urine containing 100 gm old gur (Jaggery) for 3-4 days and crushed on 5 th day and the extract is used to eradicate teaks in oxen, dogs and horses.
25.	<i>Withania somnifera</i> Dunal (Solanaceae)	Askand		Two to three tsp of root powder and aatpav khajur (<i>Phoenix dactylifera</i>) ground together with certain amount of gur (Jaggery) and the mixture is fed to weak oxen and male buffaloes once daily in early morning for 20-25 days to improve sexual vitality.

Abbreviations used: tsp-tablespoon, 1 masa-1 gm, tola-10 gm, aatpav-100 gm, pavsher-250 gm, 1 cup-100 ml, half litre-500 ml &-and.

DISCUSSION

During the field visits (table:1) in all total 25 species belonging to 25 genera from 17 families have been reported from the study area. These plants have been practiced by the indigenous Gosavis populace in curing certain ailments and in their routine demands completion. Out of the reported plant species, 1 plant species belong to Pteridophytes family and remaining 23 plant species belong to Angiospermic families. Some of the plant species viz. *Acorus calamus* (Vekhand), *Aristolochia bracteata* (Gindhan), *Asparagus racemosus* (Shat-muli), *Azadirachta indica* (Kadu-neem), *Balanites aegyptica* (Hingan), *Boerhaavia diffusa* (Lal-Punarnawa), *Boswellia serrata* (Salai), *Carissa congesta* (Karvand), *Citrus limon* (Idlimbu), *Cleome gynandra* (Pandhari Tilwan), *Clerodendron serratum* (Ransut), *Cordia dichotoma*

(Bhokar), *Cuscuta reflexa* (Amarvel), *Euphorbia antiquorum* (Tindhari), *Holarrhena pubescens* (Safed kuda), *Madhuca langifolia* (Mahua), *Jatropha gossypifolia* (Mogali Erand), *Tinospora cordifolia* (Gulwel), *Vernonia cineraria* (Shahadevi), *Vitex negundo* (Kali-Nirgudi) and *Withania somnifera* (Dhor-gunj) possess potential of better economic exploitation. Since all these taxa are being in use in more or less proportion throughout the world, they have wide scope for bio-prospecting. Therefore it is our prime duty to protect, conserve and maintain it in a proper way for our future studies.

Out of the plant species studied (table:2), majority of the preparations are from leaves and roots (seven each) followed by fruit and whole plant parts (three each), stem and seed parts (two each) and latex (1) found to have certain ethno-veterinary uses.

TABLE 2. Plant parts used against number of plant species studied

Plant part used	Root	Stem	Leaf	Fruit	Latex	Seed	Whole plant
No. of plant species	07	02	07	03	01	02	03

CONCLUSION

Information collected from the study area located in Savargaon village in Ashti taluka under the jurisdiction of Beed district indicates the local informants, vaidyas and hakims of the region possess good knowledge of traditional ethno-veterinary medicines. But due to their continuous and progressive exposure to modernization, there is threat about extinction of such rich heritage of

information in the course of time. In order to document, conserve and evaluate the efficacy of these valuable drugs, collective efforts by the ethno-botanists and ethno-pharmacologists are needed. To test their scientific validity, clinical studies are required, which can check therapeutic properties for safe use.

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