

Documentation of herbal medicines used in treatment of diseases of goats (*Cypris communis*) in and around Gwalior (M P)

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The paper deals with various diseases of goats and their treatment through herbal medicines in and around Gwalior. A total of 21 diseases of goats are documented through field survey of the study area. Various recipes prepared by utilizing 23 herbs are reported in this paper.

Keywords: Livestock, Ethnoveterinary, Traditional medicines, Herbal preparations, Goat, *Cypris communis*.

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Introduction

Livestock domestication is associated with man since prehistoric period and domestic cattle are indispensable components of human society. Like human beings, health of these cattle is also very important because sick animals may induce diseases among human beings directly or through their products. Gwalior is one of the main district of Madhya Pradesh, comprising a large cattle population mainly cows, buffaloes, sheeps and goats. Goats are versatile cattle of Gwalior and called poor man's cow as it can be reared with little expenses. Two breeds i.e. 'Jamunapuri' and 'Barbari' are mostly reared in and around Gwalior. Goat milk is consumed as a cheap and easily digestible product. Male goats are reared for meat. Goat manure is good for increasing fertility of soil. Allopathic drugs are costly for a common man; hence most of the goat rearers and livestock keepers use traditional ethnoveterinary medicines which are considered cheaper, safe and easily available in rural surroundings. Present paper mainly deals with traditional medicinal plants used in the treatment of goats of Gwalior district¹⁻⁸.

In India, a large number of plant species are used in different formulations for the treatment of various ailments of cattle, specially cows, buffaloes and goats. A good number of workers have made important contributions on ethnoveterinary medicines in India.

Materials and Methods

Information on ethnoveterinary herbal drugs was collected by personal observations and interviewing local goat keepers, folk men and farmers of the villages. For this study 45 villages in and around Gwalior were selected. Goat keepers were interviewed with a set questionnaire regarding common diseases of goats and their herbal treatments. Plant species used for the treatment were collected from respective localities. The herbarium was prepared and collection (accession) number was given for each sheet. Herbarium has been deposited to the Institute of Ethnobiology, Jiwaji University, Gwalior.

Result and Discussion

A total of 21 diseases prevalent among goats in and around Gwalior have been observed during the present study. For the treatment of various ailments over 23 plant species are used. For the preparation of some recipes only one plant species is used, however, the mixture of several species is also made in various other recipes. It was observed that many recipes are prepared by putting salt, baking soda, butter milk, jaggery or other compound to the mixture of plant parts. Mustard oil is also used in several recipes. The drug prepared are given either orally or applied over the sick/affected parts. Villagers are also particular about the time of giving/applying drug to the sick goat.

India comprises a rich biodiversity including plants and animals. In our society, less attention has been

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paid towards health of our livestock. Nature has variety of medicinal plants which are often used for the welfare of the human beings. Some of them are used for maintaining the health of domesticated animals. Goat is one of the most common milching pets, domesticated by many poor people, villagers and farmers in and around Gwalior. Goats mainly depend upon surrounding plants for their feeding. Now-a-days, people throw their wastes, garbage and polythenes, etc. in their surroundings, which were eaten by the cattle

causing various disorders in them. Bloat, foot rot, food poisoning are some of the common diseases of goat, which are mainly treated by herbal recipes. These recipes used for the treatment of various ailments of goats were cross checked in different villages of Gwalior from different goat keepers and found that almost similar herbal species are used for the treatment of goat's ailments. The entire information is given in Table 1. The botanical name of the plant is followed by its authority, family in parenthesis, locality and accession number.

Table 1—Various diseases prevalent among goats and herbal preparations for treatments

S. No.	Diseases	Botanical names	Local names	Dosages
1.	Agalactia	<i>Cuminum cyminum</i> Linn. (Apiaceae), 'Tihholi', EVS/3834	Zeera	100 g zeera with 200 g jaggery is given for 3-4 days
2.	Bloat (Tympanitis)	<i>Citrus limon</i> (Linn.) Burm. f., (Rutaceae), 'Baretha', EVS/3120 <i>Acacia nilotica</i> (Linn.) Willd. ex Delile subsp. <i>indica</i> (Benth.) Hill, (Mimosaceae), 'Dabra gaon', EVS/327	Nimbu Babool	100 g leaves of <i>C. limon</i> and <i>A. nilotica</i> with baking soda is given daily for 3 days
3.	Constipation	<i>Trachyspermum ammi</i> (Linn.) Sprague (Apiaceae), 'Maharajpura', EVS/7919 <i>Cassia tora</i> Linn. (Caesalpiniaceae), 'Maharajpura', EVS/2619 <i>Trigonella foenum-graecum</i> Linn., (Fabaceae), 'Maharajpura', EVS/8219 <i>Piper nigrum</i> Linn., (Piperaceae), 'Maharajpura', EVS/6619 <i>Cuminum cyminum</i> Linn. (Apiaceae), 'Maharajpura', EVS/3819 <i>Ferula asafoetida</i> Linn., (Apiaceae), 'Maharajpura', EVS/4619	Ajwain, Pamar Maithi Kali mirch Zeera Heeng	Mixture of 50 g <i>T. ammi</i> , 50 g, <i>C. tora</i> , 50 g <i>T. foenum-graecum</i> , 50 g <i>P. nigrum</i> , 50 g <i>C. cyminum</i> , 10 g <i>F. asafoetida</i> and 50 g black salt in the form of pills is given for 5 days.
4.	Bovicolosis	<i>Azadirachta indica</i> A. Juss. (Meliaceae), 'Sounjna', EVS/1222	Neem	Leaf paste of neem is rubbed over affected area for 3-4 days.
5.	Diarrhoea	<i>Allium sativum</i> Linn. (Liliaceae), 'Chittora', EVS/917	Lahsun	5-6 bulbs of <i>A. sativum</i> fried in mustard oil are given for 3 days
6.	Dysentery	<i>Cicer arietinum</i> Linn. (Fabaceae), 'Sirol', EVS/2945	Gram	Gram flour (200 g) dissolved in butter milk is given for 2-3 days
7.	Food poisoning	<i>Allium sativum</i> Linn. (Liliaceae), 'Uteela', EVS/932	Lahsun	3 bulbs of <i>A. sativum</i> boiled in mustard oil as well as ash of cow dung cake dissolved in 1 litre butter milk or curd is given.
8.	Foot and mouth disease	<i>Trigonella foenum-graecum</i> Linn., (Fabaceae), 'Antari', EVS/8226 <i>Trachyspermum ammi</i> (Linn.) Sprague, (Apiaceae), 'Antari', EVS/7926	Maithi Ajwain	50 g <i>T. foenum-graecum</i> , 10 g <i>T. ammi</i> and 100 g jaggery in the forms of balls are given for 3 days.
9.	Foot rot	<i>Brassica campestris</i> Linn. (Brassicaceae), 'Biloua', EVS/1625	Sarson	Ash of cycle tyre mixed with mustard oil is applied for 3-5 days.
10.	Fracture	<i>Ficus religiosa</i> Linn. (Moraceae), 'Mohanpur', EVS/4718	Peepal	Soft leaves of <i>F. religiosa</i> mixed in 250 g jaggery are given.
11.	Hyperthermia	<i>Buchanania lanzan</i> Spreng (Anacardiaceae), 'Banwar', EVS/1838	Chironji	Decoction of 100 g <i>Buchanania lanzan</i> is given once for 3 days.
12.	Injury	<i>Azadirachta indica</i> A. Juss. (Meliaceae), 'Girwai', EVS/ 1223	Neem	Edible lime and calcium powder or neem leaf paste is applied on injured part.

(Contd.)

Table 1—Various diseases prevalent among goats and herbal preparations for treatments (Contd.)

S. No.	Diseases	Botanical names	Local names	Dosages
13.	Mastitis	<i>Ferula asafoetida</i> Linn. (Apiaceae), 'Urwa', EVS/4637 <i>Indigofera tinctoria</i> Linn. (Fabaceae), 'Banwar', EVS/ 4938	Heeng, Neel	Small quantity of <i>F. asafoetida</i> or <i>I. tinctoria</i> dissolved in water and applied on teats.
14.	Pharyngitis	<i>Trachyspermum ammi</i> (Linn.) Sprague (Apiaceae), 'Rairu', EVS/7942 <i>Allium sativum</i> Linn. (Liliaceae), 'Rairu', EVS/942	Ajwain Lahsun	20 g <i>T. ammi</i> and 3-4 bulbs of <i>A. sativum</i> mixed with jaggery is given.
15.	Rheumatism	<i>Moringa oleifera</i> Lamk (Moringaceae), 'Huraoli', EVS/5915 <i>Allium sativum</i> Linn. (Liliaceae), 'Huraoli', EVS/915 <i>Boerhavia diffusa</i> Linn. (Nyctaginaceae), 'Huraoli', EVS/1515	Saunjana Lahsun Patharchatta	Paste of 100 g bark of <i>Moringa</i> , 20 g bulbs of <i>A. sativum</i> and 50 g leaves of <i>B. diffusa</i> is applied on swollen part.
16.	Rhinitis	<i>Abrus precatorius</i> Linn. (Fabaceae), 'Bhatpura', EVS/133 <i>Pennisetum typhoides</i> (Burm.f.) Stapf. & Hubb. (Poaceae), 'Bhatpura', EVS/ 6533	Gongchi Bazra	Seeds of <i>A. precatorius</i> mixed in flour of <i>P. typhoides</i> is given in the form of ball
17.	Scabies	<i>Azadirachta indica</i> A. Juss. (Meliaceae), 'Ladheri', EVS/ 127 <i>Citrus limon</i> Linn., (Rutaceae), 'Ladheri', EVS/ 317	Neem, Nimbu	Leaf paste of <i>A. indica</i> mixed with <i>C. limon</i> is applied on affected part.
18.	Urine retention	<i>Calotropis procera</i> (Ait.) R.Br., (Asclepiadaceae), 'Mohanpur', EVS/ 2018	Aak	Powder of 100 g root of <i>Calotropis</i> dissolved in 1 lt butter milk is given.
19.	Volvulus	<i>Azadirachta indica</i> A. Juss. (Meliaceae), 'Taraganj', EVS/ 123	Neem	Neem leaves mixed with salt are fed to affected goat.
20.	Worms	<i>Triticum aestivum</i> Linn. (Poaceae), 'Kulainth', EVS/ 8343	Genhu	Poultice of <i>Triticum</i> is fed to affected goat.
21.	Wound	<i>Feronia limonia</i> (Linn.) Swingle (Rutaceae), 'Arroli' EVS/ 4537 <i>Azadirachta indica</i> A. Juss. (Meliaceae), 'Nomehla', EVS/ 126, <i>Cajanus cajan</i> (Linn.) Huth, (Fabaceae), 'Badagaon', EVS/ 4516	Kainth, Neem Arhar	Leaf paste of <i>F. limonia</i> or <i>A. indica</i> or <i>C. cajan</i> is applied on affected part.

Conclusion

Most of the recipes used for the treatment of goats in and around Gwalior are specific. Present observations are entirely new ones and not described by other workers. However, phytochemical, pharmacological and clinical studies are required for confirmation and veterinary drug development.

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