ETHNO-VETERINARY MEDICINAL PREPERATIONS OF TRIBALS FROM SHIRPUR TAHSIL, DHULE DISTRICT, MAHARASHTRA, INDIA

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ABSTRACT
Ethnobotanical surveys can potentially bring out many different clues for the development of safe, effective and inexpensive indigenous remedies. Present study has been focused on tribals of Shirpur Tahsil Dhule district of Maharashtra, India. Field surveys of this area were carried out during 2010–2011 through several field visits and interviews. The aim of the present study was primarily to evaluate and inventormize ethno veterinary medicinal uses of the plants known to tribals and to encourage preservation of their culture, conservation and sustainable utilization of the plant wealth. After such survey made 21 plant species of angiosperms are found useful against the various common diseases occurring among the domestic animals of the tahsil. The plants used by the tribe are arranged alphabetically followed by family name, herbarium number, local name, parts used, method of preparation and mode of administration of the drug.

Key words: Tribals, Ethno veterinary medicine and Shirpur tahsil, Dhule district.

INTRODUCTION
India has very rich and diversified flora. This provided valuable medicinal plants. Since ancient times, manuscripts such as Rig Veda and other ancient treatises documented by Indians content wealth of information, which cures different diseases of human beings. Now, a days the documentation of ethno-veterinary practices based on plants is in flux. There are many such reports from Nepal (1,2)from India Rajasthan (3), Bihar(4), Uttar khand (5), Uttar Pradesh (6) and also from Maharashtra (7,8,9). In India more than 75% population is rural the people who rare animals usually treat them with traditional methods for the different diseases. In Maharashtra Shirpur tahsil is one of the tribal dominated tahsil in Dhule district. Satpuda ranges falls along the northern side of tahsil where, tribe communities are residing. Among them prominent are Pawara, Barela, Tadvi, Bhil etc. In spite of vivid plant wealth there are no reports on ethno-veterinary medicinally used plants in the present study area.

MATERIALS AND METHODS
Ethno-botanical explorations were carried out in the Shirpur tahsil in 2010-11. Several remote localities as well as some villages were visited. The information for collection of data was done with the usual ethno-medical botanical method (Jain 1987). The medicinal plants collected were identified with the help of established floras (Cook,1965; Patil,2003; Shah,1978) and voucher specimens are deposited at Department of Botany, V.N. College Shahada dist: Nandurbar. The correct botanical name family in parenthesis and local name plant part used, method of preparation, mode of administration of the drug against the ailments is provided and the plants species are arranged alphabetically.
ENUMERATION

*Calotropis procera* (Ait.) R.Br. (Asclepiadaceae), Rui
Plant parts used: Roots
Method of preparation: Few roots are crushed and soaked in 1 L. of water.
Mode of administration: The decoction is orally given to the cattle not foraging.

*Curculigo orchioides* Gaerth. (Hypoxidaceae), Kali-musali,
Plant parts used: Roots
Method of preparation: The roots are ground to powder and mixed with wheat flour and small size clods are prepared.
Mode of administration: About 2-3 clods are feed to the cattle suffering from pest attack in the foot and horns.

*Cassia fistula* L. (Caesalpiniaceae), Bahawa
Plant parts used: Pods
Method of preparation: Few pods are soaked in water for overnight or 4-5 hours.
Mode of administration: The infusion is given to the goat suffering from stomach enlargement. It is also useful to the hens suffering from “Mirgi” Rani khet.

*Cassia auriculata* L. (Caesalpiniaceae), Awin
Plant parts used: Flowers
Method of preparation: Handful of fresh flowers are crushed and soaked in a glass of water for 4-5 hrs.
Mode of administration: The mixture is filtered and 1/2 cup of infusion is give to the she goat, after premature delivery, to get relief from constipation. It is repeated for 2-3 days or as required.

*Citrullus colocynthis* (L.) Schrad. (Cucurbitaceae), Kadu-indrawan
Plant parts used: Fruits
Method of preparation: The immature green fruits are crushed to watery paste.
Mode of administration: The paste is applied externally over the swelling on the neck (boils) of cattle. Repeat it for 4-5 days.

*Caesalpinia bonduc* (L.) Roxb. (Caesalpiniaceae), Sagar gota
Plant parts used: Leaves
Method of preparation: The leaves are burnt to obtain smoke.
Mode of administration: The leaf smoke is given to the cattle suffering from food poisoning. It is followed once a day for 2-3 days.

*Argemone mexicana* L. (Papaveraceae), Pivla dhotra
Plant Parts used: Whole plant body
Method of preparation: The whole green plant body is crushed and soaked in a glass of water over night.
Mode of administration: This cup of infusion is applied over the boils on neck or other body part of cattle.
Hemidesmus indicus L. (Periplocaceae), Dudhi Vel  
Plant part used: Leaves or entire shoot.  
Method of preparation: The leaves from healthy plant are collected handful of leaves/shoots crushed and mixed with wheat flour and small size lumps are prepared.  
Mode of administration: The small size lumps are fed to the cow or buffalos or goat if they are not giving enough milk or even it is practiced during pregnancy.  

Madhuca latifolia (Roxb.) Chev. (Sapotaceae), Mahu  
Plant Parts used: Leaves  
Method of preparation: 5-7 leaves of Mahu are cooked with a cup of rice.  
Mode of administration: The boiled rice is fed to the cow, buffalo or goat after delivery for early detachment of ‘Jar’ (placenta).  

Drimia indica (Roxb.) Jessop. (Liliaceae), Jangli Kand  
Plant Part used: Leaves  
Method of preparation: About 8-10 fresh leaves are crushed to obtain a cup of juice.  
Mode of administration: A cup of leaf juice is administered as a single dose to the cattle having dysentery.  

Dioscoria bulbifera L. (Dioscoriaceae), Kadu kand  
Plant parts used: Bulbils.  
Method of preparation: The bulbil is rubbed over stone to prepare thick paste. Ample amount of paste is mixed with wheat or sorghum flour to prepare bread or chapatti.  
Mode of administration: The paste is applied extremely over the wound or even in pest attack in foot and horns. The bread or chapatti is fed to the cattle. It is repeated for 4-5 days or till cured.  

Euplophia herbacea Lindl. (Orchidaceae), Kukad Kand  
Plant Part used: Tuber  
Method of preparation: The tube is crushed to paste.  
Mode of administration: The paste is applied externally over the swelling on neck. It is repeated till cured.  

Cassine alberns (Retz.) Kostern. (Celastraceae), Butyakes  
Plant part used: Roots  
Method of preparation: Few roots are crushed and a cup of juice is obtained.  
Mode of administration: The cup of juice is administered to the cattle, not eating the fodder. Repeat it for 2-3 days.  

Syzygium cumini (L.) Skeels. (Myrtaceae), Jamun  
Plant part used: Leaves or Roots  
Method of preparation: Few leaves are crushed and soaked in water to obtain the juice similarly roots are also processed to obtain the juice.  
Mode of administration: A cup of juice obtained from leaves or roots is administered to the goat with dysentery/diarrhea.
**Discussion**

The present study reveals the ethno-veterinary medicinal information related to 20 plant species belonging to 16 families of angiosperms. The ethno-veterinary medicinal uses of such plants against the ailments in cattle, hens, goats etc. such as foot and mouth disease, Ranikhet (Mirgi), germs in Horns, cattle not foraging, boils, detachment of placenta, constipation, tick removal, wound, dysentery/diarrhea, food poisoning etc. From the present knowledge it reveals that the leaves, roots, stems, stem bark, underground parts, succulent leaves, flowers, fruits, fruit pericarp etc. are employed for curing the diseases in the domestic animals. This is shows the understanding of the local people about the ethno-veterinary uses of the plants, their knowledge of ailments, method of preparation of medicine, and the amount of appropriate doses for particular ailment. In spite of availability of modern medicines, rural peoples recourse to their
own traditional therapy. This shows their faith in traditional ethno medicine. Such crude drugs need to be investigated on pharmacological and clinical lines to develop potential drugs.

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