



A REPORT ON ETHNOVETERINARY MEDICINAL PLANTS OF DEORI TEHSIL, DIST.-GONDIA (M.S.) INDIA

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ABSTRACT :

The study of medicinal plants used in ethnoveterinary practices was carried out from July 2015 to June 2016 in the nearby villages of Deori Tehsil. During the study, information about ethnoveterinary plants was obtained from local people and Vaidus by regular visit and questionnaire method. The information about the traditionally used ethnoveterinary plants were collected and documented. During the survey, it was noted that different plants were traditionally used by traditional healers to treat various veterinary diseases such as basic first aid for snake bite, indigestion, physio-therapeutic treatment, over cuts and wounds, deworming in cattle, diarrhea, and increases cattle lactation. A total of 37 ethnoveterinary medicinal plants species belonging to 25 families were recorded along with their botanical names, local names, family name, parts used and their ethnomedicinal usage.

KEYWORDS : Ethnoveterinary plants, Deori, Vaidus.

INTRODUCTION

India is rich flora and fauna. Nature provides different medicinal plants which is important in the treatment of various diseases. Indigenous people have the traditional knowledge about the identification and use of different plants in various diseases and ailments. The knowledge of such plants is an important asset in preparing herbal medicine. Ethnoveterinary is less systematic, less formalized and usually transferred by word of mouth rather than writing (Phondani et al., 2010). The traditional use of medicinal plants in treating veterinary diseases is important in developing countries; where in, typical therapies for animal health care becomes financially difficult for resource poor farmers. Traditional methods of curing diseases serves better as alternative to synthetic and modern concept of treatments (Pandey et al., 2007). According to the World Health Organization, at least 80% of people in developing countries depend largely on indigenous practices for the control and treatment of various diseases affecting both human beings and their animals (WHO, 2002). Ethnoveterinary medicine is important for primary health care for poor communities. Research into ethnoveterinary medicine is often undertaken as part of a community-based



approach that serves to improve animal health and provide basic veterinary services in rural areas (Shical et al., 2010). Traditional methods are important for treating veterinary diseases as they are cost effective, has no side effects, easy preparation method and easy availability of source plant. Hence, the current study forms the first report on the ethnoveterinary medicinal plants used by people and local Vaidus of Deori Tehsil.

MATERIAL AND METHODS

Study Area: The present study was undertaken in Deori Tehsil of Gondia District. Deori Tehsil is the western most district of the Vidharbha, of the Maharashtra State. The district is situated between 21⁰.07 and 21⁰.17 North latitudes and 80⁰.01 and 80⁰.49 East longitudes. The people of the study area are basically agriculturists and most of them are having domestic animals such as cow, goat, sheep and buffalos. The area has not well supported with the veterinary doctors and hospitals. This facility is present only in the centre place Deori from which the distance of different villages is nearly 4 km to 25 kms. In case of emergency the ethnoveterinary healers of the study area offer some necessary indigenous treatments with medicinal plants. Deori is surrounded by deep forest with large number of wild plants and animals. This area is attached to the Nagzira Tiger Reserve forest as well as Navegaon Reserve forest.

Data collection: The information was collected by arranging field trips once in a week from July 2015 to June 2016 in the nearby villages of Deori Tehsil through interviews and informal conversation with traditional healers, knowledgeable person, Vaidus, experienced and aged person. Ethnoveterinary information included with the local name of the particular plant, parts utilized, medicinal uses and methods of preparation and administration. The collected ethnoveterinary information was recorded on field note books and plants were identified using relevant scientific literature (Hooker 1872-1877; Cooke 1967 (Rpr.); Sharma et al. 1996; Naik 1998; Singh et al. 2001). Subsequent visits were planned to photograph the plants in proper blooming period.

RESULTS AND DISCUSSION

The traditional knowledge has a high ethno botanical importance. In ethno veterinary practices various plants and their parts like, roots, leaves, stems and rhizome are used. During the field survey, ethno veterinary data of 37 species of plants belonging to 25 families have been collected. For different ailments local Vaidus recommended the plant parts both orally as well as applied externally. List of different plants, their families, local name, plant parts used and mode of administration is listed in table 1.

Table 1. List of ethnoveterinary plants used on different diseases by local people of Deori Tehsil.

Sr. No.	Scientific name	Family	Vernacular name	Parts used	Mode of administration
1.	<i>Abelmoschus ficulneus</i> (L.) Wight & Arn.	Malvaceae	Ran bhendi	Leaves, Roots	Leaf juice with salt water used in diarrhea of cattles. The paste prepared from the roots is applied on the bitten area in scorpion bite.
2.	<i>Abutilon indicum</i> L. Sweet.	Malvaceae	Atibala	Leaves	Leaf juice with butter milk is given orally to cure dysentery.
3.	<i>Achyranthus aspera</i> (L.)	Amaranthaceae	Aghada, Kutri	Leaves	Leaf juice is used to get relief from watering in eyes.
4.	<i>Adathoda zeylanica</i> Medik	Liliaceae	Adulsa	Leaves, stem bark	A fine paste of leaves, stem bark, garlic and Asafoetida (Heeng) is given thrice a day for healing banded areas. Decoction of leaf and stem are given to treat fever.
5.	<i>Agel mormelos</i> (L.) Correa	Rutaceae	Bel	Leaves	(Bel) leaf extract with

6.	<i>Allium sativum</i> L.	Liliaceae	Lasoon	Tuber	burn paddy straw given with kerosin oil applied on skin. infection by bacteria. Tuber is grind with water given orally in indigestion and constipation.
7.	<i>Aloe vera</i> (L.) Burm.f.	Liliaceae	korphad	Leaves	The leaf pulp is made into a paste and given to cattle for unconscious condition.
8.	<i>Andrographis paniculata</i> (Burm. f.) Wall. ex Nees	Acanthaceae	Bhuinimb	Root, stem and leaves	Whole plant is mixed with pulp juice of Tamarind fruits and given to the cattles against diarrhea and fever.
9.	<i>Aristolochia indica</i> L.	Aristolochiaceae	kidamar	Leaves	Leaf paste along with pepper is given to cure insect bite.
10.	<i>Asparagus racemosus</i> Willd.	Asperagaceae	Shatavari	Tuberous roots	Roots are ground to prepare a powder is mixed with water and given to milching animals for increase lactation. When milching animals stop milking, roots along with cotton seeds are fed to the animals to promote secretion of milk.
11.	<i>Azadirachta indica</i> A. Juss	Meliaceae	Neem	Leaves, seed	leaf juice with hot water is used against swelling and wound washing. Seed oil is applied over wounds to heal soon.
12.	<i>Calotropis gigantea</i> (L.) W.T. Aiton	Asclepiadaceae	Rui	Root	Root is kept in nostrils for few minutes to get relief from running nose.
13.	<i>Capsicum annum</i> L.	Solanaceae	Mirchi	Fruit, Seed	3-4 seeds are crushed and then mixed it in various proportions of water, from half a litre to up to 2 litres. The mixed extract is then given to the sick birds infected with viral disease.
14.	<i>Cassia fistula</i> L.	Fabaceae	Bahava	Pod	Pod is directly given during constipation
15.	<i>Cassia tora</i> L.	Fabaceae	Tarota	Seed	Seed is mixed with

16.	<i>Cissus quadrangularis</i> L.	Vitaceae	Hathjod	Leaves	water and ground into paste and applied topically to cure skin diseases Leaves are ground with pepper and garlic and made into a decoction. The decoction is given to cure fever
17.	<i>Coriandrum sativum</i> L.	Umbelliferae	Kothimbir	Whole plant	Whole plant pulp is used for hoof enlargement and mouth ulcer in cattle
18.	<i>Curcuma longa</i> L.	Zingiberaceae	Haladi	Rhizome	Paste of rhizome is applied on the wound. In cattles, during bloody dysentery paste of rhizome with equal amount of seeds of black gram and bamboo leaves are given orally.
19.	<i>Curcuma pseudomontana</i> Grah.	zingiberaceae	Ran halad	Leaves	Leaves juice is mixed with salt and given to the animals against tympany (Excess gas in stomach) till cure.
20.	<i>Datura metel</i> L.	Solanaceae	Dhotra	Fruit	Roasted fruits are given once a day till the dysentery and cough is cured
21.	<i>Diospirus melanoxylon</i> Roxb.	Ebenaceae	Tembhurni	Bark	Bark is crushed in water and pulp is given orally for fertility.
22.	<i>Emblica officinalis</i> Gaertn.	Phyllanthaceae	Awala	Bark	The stem bark paste is applied on wounds of animals for rapid healing.
23.	<i>Euphobia hirta</i> L.	Euphorbiaceae	Dudhi	Milky latex	Latex is applied externally on wounds to heal soon.
24.	<i>Gardenia gummifera</i> L.f.	Rubiaceae	Dekamali	Seed	Seed paste in boil water used as wormicide.
25.	<i>Gloriosa superba</i> L.	Liliaceae	Kal-lavi	Roots, Leaves	Root powder is dusted on wounds to kill worms. Paste of roots is applied on tumors. Root paste is applied in eyes as an antidote against snake bite. The roots are used to get relief from fever.
26.	<i>Martinia annua</i> L.	Martyniaceae	Wagnakhi	Leaves	The leaf paste with oil is used for early wound

27.	<i>Mimosa pudica</i> L.	Fabaceae	Lajwanti	Leaves	healing Leaf is ground with pepper, garlic, onion and saffron and fed to cows during fever.
28.	<i>Mimusops elengi</i> L.	Sapotaceae	Bakuli	Leaves	Leaves are crushed in water with loamy soil and given with butter milk.
29.	<i>Phyllanthus amarus</i> Schum & Thonn.	Euphorbiaceae	Bhui Awala	Leaves	Leaf juice along with leaf juice of <i>ocimum</i> and honey is fed to the cattle against anthrax.
30.	<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Karanj	Leaves, Bark	Leaf is ground with pepper and given to cure fever. Decoction of stem bark is given orally to treat dysentery.
31.	<i>Ricinus communis</i> L.	Euphorbiaceae	Erandi	Seed	Seed is grind with Garlic and Ajwain and use in cold and fever.
32.	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Jambhul	Bark	Stem bark is mixed with curd and made into a paste and given to cure dysentery.
33.	<i>Tamarandus indica</i> L.	Fabaceae	Imli	Leaves	Leaves are boiled in human urine and applied on infected spot in swelling / ache.
34.	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Behada	Bark	The bark is mixed with black salt used to treat diphtheria.
35.	<i>Tridax procumbens</i> L	Asteraceae	Kambarmodi	Leaves	Leaf paste is applied on cut wounds to heal soon.
36.	<i>Vitex negundo</i> L.	Verbenaceae	Nirgudi	Leaves	The warmed leaves are tied on swelling part and affected areas in bone fracture. The leaves extract is also used against snakebite.
37.	<i>Volarrhena antidysenterica</i> (L.) Wall. ex A. DC.	Apocynaceae	Kuda	Seed	Seed powder is given in chronic dysentery.

The plant parts like leaves, bark, seed, root, tuber, fruit and whole plant were used in raw form. The most ailments cited were: dysentery, bone fracture, fever, cut and wounds, worm infection, ulcer, skin diseases, tumor, fertility, insect bites, snake bites, indigestion etc. Family Fabaceae is found to be most often used family in the study with five species followed by family Liliaceae with four species. Leaves are predominantly used in the treatment of veterinary diseases. Most of the plants used for traditional practices are easily available in the area. Some plants are wild and some are cultivated in the area. Plants reported in the present study are also used in traditional medicines in India for the treatment of various diseases in livestock (Reddy et al., 2006; Mini and Sivadasan, 2007; Harsha et al., 2005; Yadhav, 2009; Rahman et al., 2009).

CONCLUSION

People in the study area are dependent on herbal plants for animal health care is due to their faith as well as unavailability of animal health service for the villages or nearby area. Traditional knowledge is valuable in treating livestock. The traditional medicine has low cost and almost no side effects. This knowledge of ethno medicinal plants has great potential for research and the discovery of new drugs to cure the diseases of animals. As this knowledge is vanishing very rapidly, the conservation of such knowledge is essential for future generation.

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