

# Indigenous Animal Health Care Practices from Washim District of Maharashtra

Manjusha Wath\* & Sangeeta Jambu

Department of Botany Govt. Vidarbha Institute of Science and Humanities,  
Amravati 444604, India

## Abstract:

A survey for documentation of ethnoveterinary practices used by the rural people to cure animal diseases in Washim District of Maharashtra. 16 villages were randomly selected for the study. The rural area were visited and interacted with different group of people. Ethnoveterinary information was gathered through individual interviews and personal discussions among the rural community. 69 species of ethnoveterinary medicinal plants belongs to 39 families and 66 genera were recorded in the study. The result of the present study point up that the knowledge on medicinal plants for the animal treatment is devastating day by day, so the efforts should be taken for the conservation of this knowledge. This information suggests such type of the documentation of indigenous knowledge can be used for validation of further veterinary treatments.

**Keywords:** *Ethnoveterinary, Indigenous medicine, Livestock, Washim, Maharashtra.*

## Introduction:

India is primarily an agricultural country with predominance of cattle population. Cattle play a significant role in economy and social welfare of the country (Shrivastava *et al.* 2015). There is a rich and efficient ethnoveterinary tradition that exists in the villages of India, which form integral part of the family, and plays a crucial social, religious, and economic role (Balaji and Chakravarti, 2010). This indigenous knowledge has evolved independently in different areas according to culture resources, utility and need. When a comparison is made, indigenous uses of the same plant are the distant region having very distinct. In remote areas, no veterinary medicinal help is available therefore, people depends mainly on indigenous herbal medicines.

Livestock sector contributes a major source of livelihood for the rural areas. Rural poor people depend on livestock for their livelihood. People use milk, meat, dairy products and skin for their living and use the manure to enrich the soil. They are life line of developing countries. To maintain these livestock indigenous ethnoveterinary practices are need of the farmer's. Traditional drugs for animals based on both plant and animal products and other sources have received less attention.

Ethno-Veterinary Medicine (EVM) or Veterinary Anthropology refers to holistic and interdisciplinary study of traditional knowledge, skills, methods, practices and folk beliefs of the people about the health care, healthful husbandry and production of livestock (McCorkle, 1986). It encompasses information on diseases and their control; remedies and clinical practices for treatment and prevention; management, feeding and breeding strategies; spiritual elements; and the human resources that hold the information and experience (Mathias, 2004).

Efforts are made on to document the ethno medicinal knowledge, but there are very few reports on plants used in veterinary treatments. So far, very less documentation in the field of ethnoveterinary medicines was reported in many areas. (Jain, 1991; 1999).

It is observed that several authors, documented ethnoveterinary practices in various districts of Maharashtra state with different lines of researches in Ethnoveterinary plant species used to treat the various diseases of livestock (Patil & Patil, 2001; Rothe, 2005; Deshmukh *et al.* 2011; Salave & Reddy, 2012; Salave *et al.* 2012; Somkuwar *et al.* 2012; Patil & Patil, 2013; Gadpayale *et al.* 2014; Wath & Jambu, 2014; Kulkarni *et al.* 2014)

The Washim district is very rich in floristic as well as ethnic diversity. The evaluation of livestock practices from the district was done systematically. A number of ethnoveterinary studies have been conducted in many parts of India but still no work has been done in Washim district. The present work is the first hand information on veterinary medicine from Washim district.

## Materials and Methods:

### Study area:

Washim District is situated in the north eastern part of the State and lies between north latitudes 19°61' and 21°16' and east longitude 76°07' and 77°14'. The district has a geographical area of 5196 km<sup>2</sup>.

## Survey:

Ethno veterinary medicinal survey of the area was conducted with extensive fieldwork. Before collection of the information, a general visit was created to get an outline of the region to realize familiarity with the various vegetation types, the local flora, the topography, and land use per cover pattern.

The ethnoveterinary data was collected supported interviews of informants, medicine, local traditional healers, and knowledgeable persons. The places designated for the survey include rural areas. The data about different plant species of medicinal plant obtainable round the villages were noted. Information like ethnoveterinary uses of plant, name of plant part used to cure disease and mode of preparations were noted. Plant species were identified with help of floras, Cooke (1958), Naik (1998) and Singh and Karthikeyan (2000).

### Result and Discussions:

The present study total 69 plant species, representing 39 families have been enumerated for ethnoveterinary practices as remedy for livestock diseases. The herbal formulation were prepared a fresh and administered both externally as well as internally. The formulation was prepared using a combination of plants and other material. Traditional healers had their own method of herbal formulation and mode of applications. Ethno veterinary data were collected from 28 resource persons. It was observed that all belonged to the male group with average age ranges between 35- 75 years. A few of such traditional knowledge is tried to be retrieved in this study. The plants used in veterinary medicine are enumerated alphabetically by botanical names, followed by family, local names and at the end of ethnoveterinary uses are mentioned (Table). The normal dairy cattle illnesses of the region detailed are foot and mouth diseases, black quarter, fracture, Diarrhoea and Dysentery, blood dysentery, intestinal worm, tympani, prolapsed uterus, retention of placenta, wound, maggotted wound, fever, eye diseases, ectoparasite (tick), and so forth.

**Table: Plant species with their ethno-veterinary usage**

Sr. No.	Botanical name	Family	Local name	Plant part	Diseases
1	<i>Abrus precatorius</i> L.	Papilionaceae	Gunj	Seed	Retention of placenta
2	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Maharukh	Bark	Diarrhoea and Dysentery
3	<i>Annona squamosa</i> L.	Annoanaceae	Sithaphal	Leaves, Seed	Maggotted wound
4	<i>Argemone mexicana</i> L.	Papaveraceae	Bilayti	Root	Mouth diseases (FMD)
5	<i>Asparagus racemosus</i> Willd.	Liliaceae	Asakand	Root	Black quarter
6	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Nim	Leaves	Wound, Ectoparasite (tick)
7	<i>Balanites aegyptiaca</i> (L.)	Balanitaceae	Hinganbet	Seed	Wound, Eye diseases
8	<i>Bambusa arundinacea</i> (Rets.)	Poaceae	Bambu.	Leaves	Retention of placenta
9	<i>Bombax ceiba</i> L.	Bombacaceae	Katesaver	Leaves, Root	Fracture, Blood dysentery
10	<i>Brassica napus</i> L.	Brassicaceae	Mohari	Seed	Mastitis
11	<i>Caesalpinia bonduc</i> (L.)	Caesalpinaceae	Sagargoti	Leaves, Seed	Intestinal worm, Wound
12	<i>Calotropis procera</i> (Ait.)	Asclepidaceae	Rue	Latex	Wound
13	<i>Capparis zeylanica</i> L.	Capparaceae	Waghota	Leaves	Fracture
14	<i>Capsicum annuum</i> L.	Solanaceae	Mirachi	Fruit	Mouth diseases (FMD)
15	<i>Cassia auriculata</i> L.	Caesalpinaceae	Tarod	Leaves	Blood dysentery
16	<i>Cassia fistula</i> L.	Caesalpinaceae	Bahawa	Stem	Diarrhoea and Dysentery
17	<i>Cissus quadrangularis</i> L.	Vitaceae	Hadjul	Stem	Fracture
18	<i>Citrullus colocynthis</i> (L.)	Cucurbitaceae	Kaduedrayan	Seed	Tympani
19	<i>Citrus aurantifolia</i> (Christm.)	Rutaceae	Nimbu	Fruit	Mastitis
20	<i>Colocasia esculenta</i> (L.)	Araceae	Alu	Leaves	Infertility
21	<i>Convolvulus arvensis</i> L.	Convolvulaceae	Chandvel	Root	Maggotted wound
22	<i>Cordia dichotoma</i> Forst.	Ehretiaceae	Gondhan	Seed	Fracture
23	<i>Coriandrum sativum</i> L.	Apiaceae	Dhania	Whole plant, Seed	Foot and mouth diseases (FMD) Diarrhoea and dysentery
24	<i>Cuminum cyminum</i> L.	Apiaceae	Jire	Seed	Diarrhoea and dysentery

25	<i>Curcuma amada</i> Roxb.	Zingiberaceae	Aambehaldi	Rhizome	Fracture, Tympani
26	<i>Curcuma longa</i> L.	Zingiberaceae	Haladi	Rhizome	Mouth diseases (FMD), Wound
27	<i>Dalbergia sissoo</i> Roxb.	Papilionaceae	Shisam	Leaves	Diarrhoea and dysentery, Blood dysentery
28	<i>Datura inoxia</i> Mill.	Solanaceae	Dhotra	Leaves	Wound, Swelling
29	<i>Eucalyptus globulus</i> Labill.	Myrtaceae	Nilgiri	Oil	Maggotted wound
30	<i>Euphorbia prostrata</i> Ait.	Euphorbiaceae	Gondhan	Whole plant	Wound
31	<i>Ferula asafoetida</i> L.	Apiaceae	Hing	Resin	Tympani
32	<i>Ficus racemosa</i> L.	Moraceae	Umbur	Fruit	Retention of placenta
33	<i>Gardenia resinifera</i> Roth.	Rubiaceae	Dikamali	Resin	Foot diseases (FMD), Fracture
34	<i>Gloriosa superba</i> L.	Liliaceae	Kal-lavi	Root	Prolapsed of uterus, Wound, Galactagogue
35	<i>Helianthus annuus</i> L.	Asteraceae	Suryaphool	Seed	Prolapsed of uterus, Wound, Galactagogue
36	<i>Helicteres isora</i> L.	Sterculiaceae	Muradsheng	Root	Diarrhoea and dysentery
37	<i>Hibiscus cannabinus</i> L.	Malvaceae	Ambadi	Leaves	Retention of placenta
38	<i>Holarrhena pubescens</i> (Buch.-Ham.)	Apocynaceae	Kadakura	Stem bark	Diarrhoea and Dysentery Intestinal worms
39	<i>Ipomoea aquatica</i> Forsk.	Convolvulaceae	Haranvel	Whole plant	Galactagogue
40	<i>Jatropha curcas</i> L.	Euphorbiaceae	Chandrajoti	Leaves	Wound
41	<i>Lagenaria leucantha</i> (Duch.)	Cucurbitaceae	Kadubhopala	Leaves, Fruit	Ectoparasite (tick), Fever, Black quarter
42	<i>Leucaena latisiliqua</i> (L.)	Mimosaceae	Subabhul	Leaves	Diarrhoea and dysentery
43	<i>Linum usitatissimum</i> L.	Linaceae	Jawas	Seed oil	Tympani
44	<i>Mentha spicata</i> L.	Lamiaceae	Pudina	Leaves	Diarrhoea and dysentery
45	<i>Mimosa pudica</i> L.	Mimosaceae	Lajalu	Leaves	Maggotted wound
46	<i>Momordica charantia</i> L.	Cucurbitaceae	Karli	Leaves	Blood dysentery
47	<i>Murraya koenigii</i> (L.)	Rutaceae	Godnim	Leaves	Diarrhoea and dysentery
48	<i>Nicotiana tabacum</i> L.	Solanaceae	Tambakhu	Leaves	Ectoparasite (tick), Eye disease
49	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Parijatak	Leaves	Mouth disease (FMD), Wound
50	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulasi	Leaves	Wound
51	<i>Pergularia daemia</i> (Forssk.)	Asclepidaceae	Utaran	Whole plant	Black quarter
52	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Awala	Leaves	Eye diseases
53	<i>Piper nigrum</i> L.	Piperaceae	Kali-miri	Seed	Prolapsed of uterus
54	<i>Pongamia pinnata</i> (L.)	Papilionaceae	Karnji	Leaves	Wound
55	<i>Pueraria tuberosa</i> (Roxb. ex Willd.)	Papilionaceae	Ghorbel	Root	Tympani
56	<i>Ricinus communis</i> L.	Euphorbiaceae	Erandi	Leaves	Retention of placenta
57	<i>Semecarpus anacardium</i> L.	Anacardiaceae	Bibba	Seed oil	Foot and mouth disease (FMD)
58	<i>Solanum melongena</i> L.	Solanaceae	Vangi	Fruit	Mouth disease (FMD)
59	<i>Solanum surattense</i> Burm.	Solanaceae	Rigni/Dorli	Root, Fruit	Maggotted wound, Swelling
60	<i>Sorghum bicolor</i> (L.) Moench.	Poaceae	Jawari	Seed	Diarrhoea and dysentery, Wound
61	<i>Syzygium cumini</i> (L.) Skeels.	Myrtaceae	Jamun	Stem bark	Diarrhoea and dysentery
62	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Chinch	Leaves,	Fracture,

				Seed	Wound
63	<i>Tinospora cordifolia</i> (Willd.)	Menispermaceae	Gulvel	Leaves	Diarrhoea
64	<i>Trachyspermum ammi</i> (L.)	Apiaceae	Ova	Seed	Fever
65	<i>Vernonia anthelmintica</i> (L.)	Asteraceae	Kadujira	Seed	Fever
66	<i>Vigna radiata</i> (L.)	Papilionaceae	Mung	Seed	Foot and mouth disease (FMD) diarrhoea
67	<i>Vitex negundo</i> L.	Verbenaceae	Nirgudi	Leaves	Eye disease, Hemorrhagic septicemia
68	<i>Wrightia tinctoria</i> R. Br.	Apocynaceae	Dudhihari, Dudhkadi.	Leaves, Root, Fruit	Intestinal worm, Maggotted wound, Galactagogue
69	<i>Xanthium strumarium</i> L.	Asteraceae	Gokharu	Root	Foot and mouth disease (FMD)

### Conclusion:

Traditional knowledge of ethnoveterinary practices is dynamical cultural and economical changes. This can be significantly true in Washim district of Maharashtra. Documentation of this treasure is precious for the communities and future generations and for scientific approach. The low value, straightforward handiness and no facet effects of those ancient preparations build them preferred by the native individuals of the area. The wealth of this ethnoveterinary information have an excellent potential for additional analysis and therefore the inventions of recent medication to cure livestock. So, additional scientific assessment of those medicines for phytochemical, biological, pre-clinical, and clinical studies is, however, greatly required. Thus, it can be concluded that the villagers of the study area resort to Washim district having better knowledge in ethnoveterinary practices.

### References:

1. Cook, T. (1967). "The Flora of the Presidency of Bombay." Vol. I,II,III. Calcutta: Botanical Survey of India. (Rpr.)
2. Deshmukh RR. Rathod VN and Pardeshi VN. 2011. Ethnoveterinary medicine from Jalna district of Maharashtra state. Ind. J. of Traditional Knowledge Vol. 10 (2), 344-348.
3. Gadpayale J.V., Khobragade D.P., Chaturvedi A.A. Traditional Ethno-Veterinary practices in Bhandara district (M.S.) India. Int. J. Scie. Appl. Res, 1(2), 2014; 91-99
4. Jain S.K.(1991). "Dictionary of Indian Folk medicine and ethnobotany" (Deep publications, New delhi).
5. Jain. S.K. (1999). "Dictionary of ethnoveterinary plants in India" (Deep publications, New delhi).
6. Manjusha Wath and Sangeeta Jambu 2014. Ethnoveterinary survey of herbal therapy for treating livestock of Melghat region (Maharashtra), Int J. Plant, Animal and Environ. Sci. Vol.4 (3)
7. Mathias, E., 2004. Ethnoveterinary medicine: harnessing its potential. Vet. Bull., 74(8): 27N-37N.
8. McCorkle, C., 1986. An introduction to ethnoveterinary research and development. J. Epidemiol, 6: 129- 149.
9. Naik, V.N. (1998). "The flora of Marathwada." Aurangabad: Amrut prakashan.
10. Patil H. M. and S. J. Patil (2013) Ethno-veterinary medicinal preparations of tribals from shirpur tahsil, dhule district, Maharashtra, India, KU Journal of Science, Engineering and Technology Vol. 9,(I);134-139.
11. Patil M. V., Patil, D.A., 2001. Ethnoveterinary herbal medicines from Nasik District (Maharashtra). Journal of Non-timber Forest Products 8(1-2), 19-24.
12. Rothe, S. P. (2005) Ethno-veterinary medicinal plants study from Melghat tribal region of Satpuda range. J. Bioinfolet 2(2):141-43.
13. Sajal Kulkarni, DK Kulkarni, AD Deo, AB Pande and RL Bhagat, 2014. Use of Ethno-Veterinary medicines (EVM) from Vidarbha Region (MS) India. Biosci. Disc., 5(2):180-186.
14. Salave A. P. and Gopal Reddy, Some Reports 2012. On traditional ethnoveterinary practices from Savargaon areas of Ashti Taluka In Beed District (M.S.) India. Int.J.Adv.Biol.Res., VOL. 2(1):115-119
15. Salave A.P., B.N. Sonawane and P.G.Diwakar Reddy. Traditional ethnoveterinary practices in Karanji Ghat areas of Pathardi Tahasil in Ahmednagar District (M.S.) India, Int J. Plant, Animal and Environ. Sci. Vol.2 (1)
16. Shrivastava S., Jain A.K., Mathur R., 2015. Documentation of Some Ethnoveterinary Practices at Gwalior District, Madhya Pradesh in India. The Journal of Ethnobiology and Traditional Medicine. Photon 124, 974-977.
17. Singh, N.P. and Karthikeyan, S. (2000). Flora of Maharashtra State. Vol. I, II, III. Calcutta: Botanical Survey of India.
18. Somkuwar S.R. S.A. Kalkar and R.R. Chaudhari (2012) Ethnoveterinary Usage of Wild Medicinal Plants in Chandrapur District. Research Trends in Biological Sciences.79-84
19. Sri Balaji, N. & Chakravarthi, Vikrama P. (2010). Ethnoveterinary Practices in India – A Review. Veterinary World, 3(12), 549-551.