

# Ethnobiological Non- Herbal Therapeutics Used For Cattle In Gwalior, M.P.

Sushmita Shrivastava, R.S. Tomar

**Abstract:** Nature consists of plants, animals, human beings, minerals and several other physical and chemical factors, which all interact with each other and constitute an environment. This interaction was also reported by our ancestors and aboriginals and expressed in the form of a bunch of information called Ethnobiology. This bunch has various therapeutical and non- therapeutical approaches based on believes, culture and surroundings. Among therapeutical approach there is large description about use of plant recipes, but there are certain plant by- products, animal parts and minerals also which are used singly or in combination with plant products or some additives by the villagers of Gwalior region to treat their cattle. In the present paper, an effort is made to document such non- herbal ethnobiological formulations which can be used as curative purpose for cattle. They are as useful as herbal recipes and plays important role in traditional system of treatment.

**Key Words:** Cattle, ethnobiology, minerals, non- herbal, therapeutic.

## 1 INTRODUCTION

Traditional knowledge has always been a great source of information since a very long time. Our history revealed about several effective information for curative purposes also. Ethnobiology is the science which deals with this traditional knowledge regarding people's belief, faith and experiences with their surroundings. It deals with the use of plants, animals, minerals or other materials which are available in the nature for the welfare of man and environment. As animals specifically cattle are important members of our society, their good health is very necessary for the economy of our country. Although allopathic medicines are available but they are very costly and also imposes side effects to the animal. While on the other hand traditional medicines are cheaper, easily available and have no side effects. The most important thing is that people have full faith on them. There are lots of literature and information which comprises use of herbal recipes for the treatment of animals. But there are certain minerals, plant by-products and animal parts also which are found to be used by our aboriginals and keep equal importance in the field of ethnobiology. In the present paper, an effort has been made to document some non herbal formulations which are utilized by villagers and folk people of Gwalior region for the treatment of their cattle. These formulations are either used singly or with some additives like oil or any plant product. They are found to be equally important like other plant formulations. They play a crucial role in traditional medicinal system. With the use of age old herbal formulations, use of several non- herbal, minerals and

animal parts were reported in various regions of India and abroad. In place of plants as medicines, zootherapeutical uses were also emphasized in semiarid regions of Northeastern Brazil [1]. A study took place in Ngamiland district of Botswana revealed about the use of thin wire for the treatment of backleg in calves. Similarly the people of the area also used 'tshega', a specific garment formed by goat skin for the cure of aphosphorosis [2]. In the same way, millipedes were found to be used to treat pink eye disease among cattle, tortoise shells were used in wound healing for cattle and poultry [3]. Use of non- herbal ethnoveterinary formulations were also mentioned among Sardinian shepherds for the cure of small ruminants [4]. A study carried out in Shervaroy Hills of Eastern Ghats and revealed about the use of rock salt instead of common salt in several ethnoveterinary formulations [5].

## 2 MATERIALS & METHODS

The study had been taken place in Gwalior region of Madhya Pradesh. The study basically included interaction and interview with the villagers, aboriginals and expert dairy persons of about 30 villages through a set questionnaire. The questionnaire was prepared to get information regarding diseases of cattle, their treatment strategies about use of herbal and non- herbal recipes and mode of administration. Diseased cattle were keenly observed for symptoms of the disease and recovery phase. Each owner of the diseased cattle was asked for causatives of disease, general condition of cattle and their behavioural changes.

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### 3 RESULT & DISCUSSION

In the present study, about 46 traditional medicines had been reported in which basically non-herbal or plant by-product or animal part was found to be used as medicine

for the treatment of cattle in Gwalior district. These formulations were reported as very effective as herbal formulations.

The table depicts name of material either non-herbal or mineral or animal part, followed by ailment and formulation.

S. No.	Non-herbal material/ Plant by-products/ Animal part	Ailment	Formulation
1.	Alum	Horn Injury	Alum powder is applied on broken and injured part of horn to stop bleeding.
2.	Baking powder	Bloat, Constipation	Baking powder is used with some herbal ingredients to overcome swollen abdomen (bloat) and constipation among cattle.
3.	Bamboo flexes	Fracture	Bamboo flexes are used to support fractured part of cattle.
4.	Basi Pani (2-3 Days Retented Water)	Conjunctivitis	Retented water is forcefully applied into the affected eyes.
5.	Batisa	Bloat, Constipation, Anorexia, Agalactacia	It is a powdered formulation having several spices, used with hot water to overcome stomach problems, loss of appetite, less lactation etc.
6.	Besan (Gram flour)	Dysentery	Gram flour is mixed with butter milk and administered with bamboo pipe into the mouth of cattle.
7.	Black salt	Bloat, Constipation, Worm Infestation	Black salt is used with other herbal recipes in the treatment of bloat, constipation and to get rid of worms.
8.	Brick Furnace Ash	Pediculosis (Lice Infestation)	Brick furnace ash is applied on the lice affected area of cattle.
9.	Bright Sunlight	Pediculosis	After applying neem paste on the affected area, animal is kept in bright sunlight.
10.	Buffalo Urine	Pediculosis	Buffalo urine is applied on the affected area of cow.
11.	Burnt Mofi Oil (Machine oil)	Foot Rot, Lice Infestation	Burnt mofi oil is applied on the affected part of the cattle.
12.	Camphor (Kapoor)	Mastitis, Urine Retention	Camphor is fed with chappati or jaggery to the swollen udder affected cattle. Camphor is also used on the urethral part of cattle for easy urination.
13.	Castings of Snake (Kaichuli)	Foot Rot	Castings of snake mixed with chappati and given the affected cattle.
14.	Cold Water	Urine Retention	Problem of urine urination in summer season can be resolved by pouring cold water on the head of cattle.
15.	Cow dung pebble ash	Broken horn	Finely grinded cow dung pebble ash is applied on the broken horn.
16.	Cycle tyre ash	Foot Rot	Cycle tyre ash mixed with mustard oil applied of affected foot of cattle.
17.	Dag Lagana (Hot Ironing)	Mastitis, Pharyngitis	Hot ironing is done on pelvic region of cattle (mastitis) or on swollen part (pharyngitis).
18.	Dalda (Vegetable oil)	Volvulus	Small amount (200 gm) of dalda has been fed to cattle only once in a day.
19.	Edible Lime (Choonna)	Injury	Edible lime with calcium powder is applied on injured part of cattle.
20.	Feather of Peacock	Pharyngitis	Peacock feathers grinded with asafoetida and jaggery applied over swollen part.
21.	Fish water (Fish discharges)	Foot Rot, Placenta Retention	Living fish is kept in water for 2-3 hours, then this water is given to cattle suffered from foot rot and retained placenta.
22.	Fish Curry	Prolapse, Foot Rot	Mimosa with fish curry advised to give in case of prolapse condition. Fish carry or boiled fish is also given in case of foot infection.
23.	Fodder	Placenta Retention	Dry fodder (1/2 to 1 kg) with jaggery is given to parturited cattle for 3-4 days.
24.	Froglet Discharge (Frog Urine)	Foot Rot	Froglets are tied with the foot of cattle and then their discharges will help in healing.
25.	Geru (Red Rock Powder)	Horn Injury, Pharyngitis	Red rock powder mixed with mustard oil is used on the affected area.
26.	Ginjai (Butterfly Larvae)	Prolapse	Butterfly larvae are crushed and applied over the prolapsed part.
27.	Glass Powder	Cataract	Glass Powder with Sindoor mixed in mustard oil

			and applied over the affected eye.
28.	Goat faecal drop ash	Conjunctivitis	Goat faecal drop ash mixed with castor oil is applied over the affected eye.
29.	Hair Bunch	Fracture, Horn Injury	Bunch of hair with brick powder and mustard oil tied over affected area help to heal broken or fractured part of cattle.
30.	Hot Dust (Garam Dhool)	Foot Rot	Hoof infection is also treated by carrying affected animal in hot dust thrice a day for 3 to 4 days.
31.	Jaggery	Agalactia, bloat, constipation, diarrhoea, dysentery, fever, fracture, FMD, placenta, retention, rhinitis, wound	Jaggery is found to be one of the major constituent of ethnobiological formulations used with various herbal recipes for the treatment of several diseases.
32.	Kerosene	Volvulus	2-3 drops of kerosene oil drooped into the nostrils of cattle to get rid of stomachache.
33.	Lac Insect Castings (Furfota)	Mastitis	Lac insect castings get grinded, mixed with butter and applied on affected teats of cattle.
34.	Lemon pickle/ Mango pickle	Constipation	2-3 years old lemon pickle is given twice a day to the cattle.
35.	Life Boy Soap	Placenta Retention	½ cake of lifeboy soap is grinded and mixed with 1litre water and given to affected cattle.
36.	Misri (Sugar cubes)	Panting	Wheat grains wrapped in cloth got soaked with cold water, mixed with misri and given to affected cattle to overcome panting.
37.	Mud	Foot rot	Cattle is moved in mud to relief from foot rot.
38.	Oil Cake (Tilli/ Sarsoo ki Penna)	Agalactia	Oil cake dissolved in water, mixed with fodder and given to the cattle 4-5 days to enhance lactation.
39.	Porkupine Spine (Sehi ka Kata)	Injury	Porcupine spine is grinded and mixed with neem paste and applied on the injured part of the cattle.
40.	Potani (Yellow soil)	Sprain	Yellow soil mixed in water and applied over the swollen and inflammed part of the cattle.
41.	Sabudana	Placenta Retention	Sabudana mixed with linseed and given to parturated cattle.
42.	Sindoor (Vermillion, Red Lead)	Broken horn, Cataract	Sindoor with pulp of Bel used in broken horn, while with glass powder and mustard oil used in cataract.
43.	Straw	Worm Infestation	Straw extract is boiled in mustard oil, cooled and then given to affected cattle to get rid of worms.
44.	Tat (Jute cloth)	Abortion	Water dipped/ soaked jute cloth tat is tied over pelvic region of cattle to avoid abortion in summer season and continuation of pregnancy.
45.	Termerium Soil	Bloat	Soil of termerium mixed with sugar pebbles and fed to the affected cattle.
46.	Turpentine Oil	Bloat	Turpentine oil (100gm) mixed with coconut oil and given to the affected cattle to overcome tympanitis.

An effective ethnoveterinary study had been done in various regions of India and abroad which revealed their own findings, some were found to be correlated and others are different. Oil bran with bazra for placenta retention had been used in Tamil [6] while present study revealed use of oil cake with fodder for lactation. In the same way use of feathers as ethnoveterinary medicine had been reported in West Bengal [7] but their findings were not exactly resemble with ours. The use of several non-herbal and animal by-products were also emphasized in other regions [8]. By studying several observations of various workers, it has been inferred that formulations may vary with the locality and available resources. The observations of present study are mostly novel, does not correlate with others findings.

#### 4 CONCLUSION

Traditional knowledge is the inherent wealth of our ancestors, which is very precious and beneficial. But this knowledge gets endangered due to lack of documentation and systematization. Even the young minds of our society do not have faith over them. But this knowledge keeps utmost importance in the present world too. Like herbal

medicines, minerals, plant by-products and animal parts also could be used in the curative purpose of cattle. Due to increasing modernization and new medicinal system, this knowledge of ethnobiology is gradually diminishing. Thus, it is very essential to save this wealth of ethnobiology by its popularization and documentation. It's our duty to maintain and flourish this traditional treasure of knowledge which is highly useful, informative and implementable.

#### ACKNOWLEDGMENT

We are thankful to all the villagers, dairy persons and aboriginals who gave us such a valuable information.

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