



# Indigenous animal husbandry practices of tribal farmers

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**ABSTRACT :** Indigenous knowledge is characterized as the sum of experience and knowledge for a given ethnic group, which forms the basis for decision making in regard to familiar and unfamiliar problems and challenges. It can play key role in designing of sustainable farming systems including animal husbandry practices thereby increasing the livelihood that rural populations would accept, develop and maintain innovations and interventions. The domain of traditional veterinary knowledge has attracted a considerable amount of interest amongst scientific community, policy planners and extension workers and development agencies in recent times. The present study is an effort to document the indigenous livestock and animal husbandry practices of the tribal farmers in the tribal region of Madhya Pradesh state. The study was conducted in one purposively selected agriculturally less progressive block, namely, Kundam of Jabalpur district of Madhya Pradesh state. A total of 60 tribal farmers served as respondents. The findings of the study would help the extension workers, policy makers and scientists to have an insight into the evolution of appropriate technology or practices for sustainable agriculture and bring participation for ultimate development, relation to socio-economic upliftment of tribal farmers.

**KEY WORDS :** Indigenous knowledge, ITK, Tribal farmers, Animal health care, Ethno-veterinary medicines

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## INTRODUCTION

Indigenous knowledge is characterized as the sum of experience and knowledge for a given ethnic group, which forms the basis for decision making in regard to familiar and unfamiliar problems and challenges. It can play key role in designing of sustainable farming systems including animal husbandry practices thereby increasing the livelihood that rural populations would accept, develop and maintain innovations and interventions. For ages, human beings, in particular, the resource poor farmers and marginal societies around the world, have been utilizing locally available plant resources for formulating a wide range of plant based herbal medicines for treating

animal diseases as an economical, accessible, efficacious and ecologically sustainable means to animal health care practices. It is hardly surprising that due to these reasons, the domain of traditional veterinary knowledge has attracted a considerable amount of interest amongst scientific community, extension workers and development agencies in recent times. The present study is an effort in this direction and specifically attempts to document the indigenous livestock and animal husbandry practices of the tribal farmers belong to kundam area of Jabalpur district of Madhya Pradesh state.

## MATERIAL AND METHODS

The study was conducted in three purposively selected agriculturally less progressive blocks, Kundam of Jabalpur district of Madhya Pradesh. To document the indigenous livestock and animal husbandry practices, three village from selected blocks were selected purposively namely: Sonpur, Sundarpur and Amjhar valley

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Purposive selected of villages was necessitated to make at least two requirements, firstly, the village should have substantial population of indigenous people *i.e.* tribal's and secondly it should have sufficiently large number of farming families. A total of 60 tribal farmers served as respondents. Besides, key informants were selected for getting detailed information of indigenous farming knowledge. The study aimed at documenting indigenous animal husbandry practices and so it was decided to select agriculturally less progressive blocks of Jabalpur district of Madhya Pradesh. The motivation behind selection of agriculturally less progressive blocks included the possibility of predominance of traditional animal health care practices in such areas in comparison to the agriculturally based high productive areas for the purpose.

## RESULTS AND DISCUSSION

The various livestock and animal healthcare practices of the study area have been documented. The disease-wise discussion has been presented below in Table 1.

### Diarrhoea :

Diarrhoea is the most common symptom associated with many diseases. To cure these disease respondents were using three different combinations. Decoctions from the barks of Tendu (*Diospyros cordifolia*) and Bankulthi (*Atylosia scarobaoides*) were the most broadly used combination by the majority of the respondents. Some of the respondents were administering orally the mixture of Ajwain, Methi, Saunf, Sonth and Rock salt with molasses. Pulp of 100 g old ripened *Tentul* (Tamarind, *Tamarindus indica*) is fed to the animal for two to three days.

### Constipation :

It is a condition associated with some diseases and happens when the animal remains unfed for few days. Respondents used shoot of Khathal, leaves of Jashtimadhu (*Glycynhiza glabara*) along with gur. Some of the respondents used leaves of Kadam and brak of mango tree.

### Stomach pain :

Respondents were using two different combinations for the treatment of stomach pain. Some of the respondents were using leaves of Tabenda along with tobacco. The leaves of Tabenda were mixed with tobacco

and were orally given to the affected animal.

### Intestinal worms/Endo parasites :

Three different combinations were reported by the respondents to cure intestinal worm problem. Decoction from leaves and barks of Farhar (*Erythrina indica*) was fed with molasses by the respondents. Fruit of Baibidan (*Embellia robusta*) with molasses was also given by some of the respondents.

### External parasites/ Ectoparasite :

Animals affected from lice or tick infection were taken care in variety of ways by the respondents. Use of tobacco shoot with kerosene oil was most popular way to tackle the ectoparasites. Decoction of leaves of Karanj (*Pogemia pinnata*) or oil of Karanj was applied externally by substantial number of respondents.

### H.S. (Haemorrhagic septicemia) :

Respondents were using only one combination for treatment of this disease. Respondents used Hunumgata leaves and Golki for treating this disease. Leaves of Hunumgata was mixed with golki and half is given orally and rest half is given as paste. The respondents were confident that this combination with cures the disease and will given immediate relief to the suffering animal.

### Bloat :

Bloat or Tympanitis was one of the most common digestive disorders reported by the respondents. This problem is largely associated with grazing of lush pasture, which contains a high portion of clover. A large number of respondents fed Ajwain, hing and black salt. They felt this treatment was best to cure the suffering animal. While some respondents used to give onion ginger and hing. One hundred ml sap extracted from leaves of *Kadam* (*Anthrocephalus cadamba*) is drenched to the cattle for 2-3 days.

### Fever or cold :

In case of fever or cold respondents used to give Salam lutur (*Cissampelos pareira*) leaves, leaves of Pitusing (*Clerodendrom senatum*) and lahsun (Garlic seed), these were mixed and given orally. Some of the respondents felt that application of mustard oil with Lahsun was the best way for treating the diseased animal. Fresh juice from leaves of Harshingar (*Nyctanthes*

*arbortristis*) alongwith honey was also given by some respondents. One hundred g *Tulsi* leaves (Holy basil, *Ocimum sanctum*) and 100 g *Basak* leaves (*Adhatoda vasica*) are boiled with water. Then extracted juice is mixed with 1-teaspoon the honey and fed to the animal.

### Foot and mouth disease :

Foot and mouth disease locally known as 'Khurha-Chapka' is tackled by a variety of ways by the respondents. For treating foot lesions the most common approach adopted by the respondents was to make the animal walk in warm water of canal or river and keeping them stand still for 20-30 minutes in the mud. Some

respondents applied lard. Some respondents made a mixture from leaves of Kokarota and leaves of Borkunda and pasted it. In case of mouth lesion leaves of Arhar (*Cajanus indicus*) and the respondents rubbed Fitkiri on the tongue and the lesion.

### Fracture :

In case of fracture majority of the respondents used powdered root or paste of the stem of Harjaura (*Vitis repanda*). While some of the respondents used Harjaura (*Vitis repanda*) with stems of Pecki and Sajiwan.

### Horn fracture (Broken horn) :

In case of fracture majority of the respondents used

**Table 1 : Summary of indigenous practices animal healthcare**

1.	Diarrhoea	Decoction of barks of Tendu and Bankulthi Tawayan + Methi + Saunf + Sonth and rock salt with molasses Pulp of ripened Tentul
2.	Constipation	Shoot of Kathal + leaves of Jashtimadhu along with gud given orally Leaves of Kadam + bark of mango tree
3.	Stomach pain	Leaves of tabenada + tobacco are given orally
4.	Intestinal worms / Endo Parasites	Leaves and bark of Farhar with molasses internal parasite Fruit of Baibidan with molasses
5.	External Parasites/ Ectoparasite	Tobacco shoot with kerosene oil Leaves of Karanj or Karanj oil
6.	H.S.	Hunmgata + Golki are mixed and half is given orally and rest half is pasted
7.	Bloat	Ajwain + Hing + Black salt Onion + Ginger + Hing
8.	Fever or cold	Salam lutur leaves + leaves of pitusing + Lahsun are mixed and are given orally Application of mustard oil with Lahsun Leaves of Har Shingar and honey Bhui-champa + Kalmeg + Pepper + Gol mirch
9.	Foot and mouth	Making the animal walk in canal/river water Application of lard Leaves of kokarota + leaves of Borkunda are mixed and pasted Application of fitkiri on affected part Rubbing and feeding of arhar leaves
10.	Fracture	Powdered root or paste of the stem of Harjaura Harjaura + Pechki + Sajiwan
11.	Horn Fracture	Black or red mud with women hair and mustard oil
12.	Wound cases	Ata (Custard apple, <i>Annona squamosa</i> ) and applied topically. Halud (Turmeric) is grounded and applied topically. Extract of Ganda (African marigold) leaves is applied topically.
13.	Falling tail	Tendrel of Bar ( <i>Zizyhus injba</i> ) + Rola ( <i>Terminolia chebula</i> ) + Junapa are mixed and are pasted on the tail
14.	Anoestrus	Bark of Aswatha ( <i>Ficus religiosa</i> ) + gruel Kela ( <i>Edible banana, Musa paradisiaca</i> ) along with 400 g sugar Jaba flower's bud and old sugarcane jaggery

black or red mud with women hair and mustard oil tied on horn application of warm.

#### Wound cases :

Three different combinations were reported by the respondents to cure Wound cases. Powder is made by grinding the seeds of Ata (Custard apple, *Annona squamosa*) and applied topically on the worm-infested wound. *Halud* (Turmeric, *Curcuma domestica*) is grounded and applied topically. Extract of *Ganda* (African marigold, *Tagetes erecta*) leaves is applied topically.

#### Falling tail :

For controlling falling of tail respondents used a mixture to cure this disease. A mixture from tendril of Bar (*Zizyhus injuba*), Rola (*Termind liachebula*), Junapa was pasted on the tail of the animal. Gupta and Patel (1992) also reported that farmers were using indigenous technology for livestock practices.

#### Anestrus :

During onset of anoestrus respondents were using a mixture. A mixture is made with the extract of bark of *Aswatha* (*Ficus religiosa*) and gruel and is to be fed for 10-15 days. Some of the respondents were using twelve pieces of *Kela* (Edible banana, *Musa paradisiaca*) along with 400 g sugar are to be fed for 2 days. One hundred g paste is made from *Jaba* (Chinese hibiscus, *Hibiscus rosa sinensis*) flower's bud and old sugarcane (*Saccharum sinense*) jaggery, then to be fed for 15 days. Similar work related to the present investigation was also carried out by Sarap *et al.* (2012); Chauhan and Raval (2012); Saiyad and Badhe (2012) and Nikhade and Patki (2005).

#### Conclusion :

The study concludes that a majority of tribal farmers are adopting indigenous animal husbandry practices in treating a wide range of livestock health disorders. These practices are found to be not only extremely economically but also quite sustainable and use locally available resources without any of the side effect. The findings of the study would help the extension workers, policy makers and scientists to have an insight into the evolution of appropriate technology for sustainable agriculture and bring participation for ultimate development and welfare of the livestock or an animal.

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