RESEARCH NOTE

Indigenous Livestock 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 Jharkhand state. The study was conducted in three purposively selected agriculturally less progressive blocks, namely, Tamer, Arki and Angara blocks of Ranchi district of Jharkhand state. A total of 200 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 for sustainable agriculture and bring participation for ultimate development.

Key words: *Indigenous knowledge; ITK; Tribals; Animal health care; Ethno-veterinary medicines;*

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 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, policy planners, and 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 in the tribal region of Jharkhand state.

METHODOLOGY

The study was conducted in three purposively selected agriculturally less progressive blocks, namely, Tamer, Arki and Angara blocks of Ranchi district of Jharkhand state. To document the indigenous livestock and animal husbandry practices, one village each from selected blocks were selected purposively namely, Deori (Tamer), Noorhi (Arki) and joona (Angara). Purposive selected of villages was necessitated to make at least two requirements, firstly, the village should have substantial population of indigenous people i.e. tribals and secondly it should have sufficiently large number of farming families. A total of 200 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 Ranchi district of Jharkhand state. The rationale 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 more progressive areas. For this purpose, all the 20 blocks of the district were classified into three groups, namely; agriculturally progressive blocks, agriculturally moderately progressive blocks and agriculturally less progressive blocks. The agricultural progressiveness of the blocks was measured with the help of a scale having relevant information from secondary sources especially collected for the purpose.

RESULTS AND DISCUSSION

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

(a) Diarrhoea: Diarrhoea is the most important condition associated with many diseases. To cure these disease respondents were using two different combinations. Decoctions from the barks of Tendu (*Diospyros cordifolia*) and Bankulthi (*Atylosia scarobaeoides*) were the most widely used combination by the majority of the respondents. Some of the respondents were administering the mixture of Ajwain, Methi, Saunf, Sonth and Rock salt with molasses.

(b) 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 (*Glycnhiza glabara*) along with guide. Some of the respondents used leaves of Kadam and brak of mango tree.

(c) Stomach pain : Respondents were using two different combinations for the treatment of stomach pain. Some of the respondents were using leaves of Tabenada along with tobacco. The leaves of Tabenda were mixed with tobacco and were orally given to the suffering animal. Some of the respondents were given faces of horse along with tobacco. It was also given orally to the diseased animal.

(d) Intestinal worms/Internal 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. Few of them were also drenching blood of duck either singly or in combination with neem water.

(e) 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. Few respondents applied dung ash with leaves of saripha (*Annona squamosa*).

*(f) H.S (Haemorrhagic Septicemic):*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 pasted. The respondents were confident that this combination with cures the disease and will given immediate relief to the suffering animal.

(g) Bloat :Bloat or Tympanitis was one of the most important health disorder reported by the respondents. This problem is largely associated with grazing of lush pasture, which contain 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.

(h) 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, 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*) along with honey was also given by some respondents.

*(i) 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

Table 1: Summary of Indigenous practices for livestock and animal healthcare

S.No.	Disease	Traditional Treatment
1.	Diarrhoea	(a) Decoction of barks of Kendu and Bankulthi
		(b) Tawayan + Methi + Saunf + Sonth and rock salt with molasses
2.	Constipation	(a) Shoot of Kathal + leaves of Jashtimadhu along with gud given orally
		(b) Leaves of Kadam + bark of mango tree
3.	Stomach pain	(a) Leaves of tabenada + tobacco are given orally
		(b) Faeces of horse along with tobacco are given orall
4.	Intestinal worms/	(a) Leaves and bark of Farhar with molasses
	internal parasite	(b) Fruit of Baibidan with molasses
		(c) Blood of duck
5.	Ectoparasite	(a) Tobacco shoot with kerosene oil
		(b) Leaves of Karanj or Karanj oil
		(c) Dung ash with leaves of Saripha
6.	H.S.	(a) Hunmgata + Golki are mixed and half is given orally and rest half is pasted
7.	Bloat	(a) Ajwain + Hing + Black salt
		(b) Onion + Ginger + Hing
8.	Fever or cold	(a) Salam lutur leaves + leaves of pitusing + Lahsun are mixed and are given orally
		(b) Application of mustard oil with Lahsun
		(c) Leaves of Har Shingar and honey
		(d) Bhui-champa + Kalmeg + Pepper + Gol mirch
9.	Foot and mouth	(i) Foot lesion :
	disease	(a) Making the animal walk in canal/river water
		(b) Application of lard
		(c) Leaves of kokarota + leaves of Borkunda are mixed and pasted
		(ii) Mouth lesion :
		(a) Application of fitkiri on affected part
		(b) Rubbing and feeding of arhar leaves
10.	Fracture	(a) Powdered root or paste of the stem of Harjaura
		(b) Harjaura + Pechki + Sajiwan
11.	Skin disease	(a) Oil expressed from seeds of Karanj is applied on the skin
12.	Rinder pest	(a) A mixture of root of Solam lutur (*Clerodendrom serratum*), leaves of Asaria (*Coparis honida*) and leaves of Bhajisay with gud (gruel) are given orally
13.	Falling tail	(a) Tendrel of Bar (*Zizyhus injba*) + Rola (*Termindlia chebula*) + Junapa are mixed and are pasted on the tail

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.

*(b) 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.

(k) Skin disease: To control skin disease respondents applied oil expressed from seeds of Karanj (*Pongamia glabra*) on the skin of the animal. They believed this treatment would give immediate relief to the animal.

*(l) Rinderpest :*For controlling rinderpest respondents were using a mixture. Root of Salam lutur (*Clerodendrom serratum*), leaves of Asaria (*Caparis henida*) and leaves of Bajisag with guid (gruel) are mixed and given orally.

(m) Falling tail : For controlling falling tail respondents

used a mixture to cure this disease. A mixture from tendril of Bar (*Zizyhus injuba*), Rola (*Termindlia chebula*), Junapa was pasted on the tail of the animal. *Gupta & Patel (1992)* also reprted that farmers were using indigenous technology for livestock practices.

CONCLUSION

The study concludes that a very large number 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. 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.

Paper received on : April 24, 2010
Paper accepted on : July 17, 2010

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