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Original Research Article

Extent of Awareness and Adoption of ITKs Followed in Animal Husbandry in Ranchi Disttrict of Jharkhand

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A B S T R A C T

In Jharkhand the animal husbandry is endowed with a large number of effective ITKs but with the development of modern medicine, traditional medical practices have been increasingly replaced and overlooked. But now a days these ITKs are again getting importance and are needed to be commercially exploited after value addition. Keeping in view the present study was conducted to know the extent of awareness and adoption of ITKs followed in animal husbandry in Ranchi district of Jharkhand. The present study revealed that 52% of the respondents were aware of the use of decoction of barks of Kendu and Bankulthi to control diarrhea with 50% adoption. In case of fever, 54% were aware of the use of stems and leaves of Kalmegh with 48% adoption. 72% of the respondents were aware of the use of powdered root or paste of stem of Harjora plant in fracture with 68% adoption. 50% of the respondents were aware of the use of Kadam along with molasses to treat constipation with 46% adoption. 52% of the respondents were aware of the application of mustard oil with Lahsun in pneumonia with 48% adoption. In case of bloat, 42% of the respondents were aware of the use of Ajawain, Hing and Black salt with 34% adoption. 32% of the livestock owners were aware of the use of leaves and bark of Farhar with molasses in GI problems with 28% adoption. In case of FMD, 72% of the respondents were aware of the use of Lime water or Karanj oil for treatment of foot lesion with 68% adoption and 46% were aware of the use of leaves of Arhar and Fitkiri for mouth lesion with 42% adoption. 54% of the respondents were aware of the use of Haldi and Deshi ghee to treat wound with 52% adoption. In case of ectoparasitic infestation, 74% of the respondents were aware of the use of Decoction of leaves of Karanj / oil of Karanj with 68% adoption.

Keywords

ITK, Awareness, Adoption, Animal husbandry, Ranchi district

Introduction

The ITK embraces people's knowledge of tools and techniques for the assessment, acquisition, transformation and utilization of resources which are specific to particular location (McCall and Michael 1996). In Jharkhand like other fields, the animal husbandry is also endowed with a large number of effective ITKs but with the development of modern medicine, traditional medical practices have been increasingly replaced and overlooked because many people regarded them as ineffective and useless (Bizimana, 1997). The reconsideration of traditional medicinal systems in the industrialized world and the fact that modern medicine is too expensive

and have side effects, these ITKs are again getting importance and are needed to be commercially exploited after value addition. Keeping in view the present study was conducted to know the extent of awareness and adoption of ITKs followed in animal husbandry in Ranchi district of Jharkhand.

Materials and Methods

The study was carried out in South Chhotanagpur division of Jharkhand State and Ranchi district was selected randomly. 50 livestock owners which were known to use of ITK's and 10 traditional healers which were considered to be knowledgeable in ITK's in animal husbandry in surrounding areas were selected randomly.

In order to get logical interpretation, the data were tabulated and subjected to simple statistical tools such as frequency and percentage.

Results and Discussion

The extent of awareness and adoption was studied for documented ITKs by the livestock owners in their animals for ten commonly found animal diseases. The results obtained during the present study is summarized in the table given below.

1. **Diarrhoea –** The above Table indicated that most of the livestock owners (52%) were aware of the ingredients (decoction of bark of Kendu and Bankulthi) followed by 44% (fresh fruit of Aonla), 34% (unripe Mango, barks of Pojo and Janum), 28% (Ajawain, Methi, Sauf and rock Salt with molasses), 20% (juice of Kurchi leaves) and 16% (juice of Bahera) used in indigenous preparation to control diarrhoea. These practices were adopted by 50%, 40%, 30%, 22%, 14% and 10% of the livestock owners respectively.
2. **Fever -** In case of fever, most of the respondents (54%) were aware of application of stems and leaves of Kalmegh, 46% were aware of use of mixture of preparation of Akandi, Ajawain and Golmirch and 38% were aware of application of smoke of Begna leaves over the body. These practices were commonly adopted by 48%, 44% and 30% of the livestock owners respectively.
3. **Fracture -** Majority of the livestock owners (78%) were of the ingredients (stem of Harkankan, bark of Kusum and Rhizome of Haldi) and 72% were aware of ingredients (powder root or paste of stem of the Harjora and Dub grass) used in indigenous preparation in case of fracture. These practices were adopted by 70% and 68% of the livestock owners respectively.
4. **Constipation -** In case of constipation, 50% of the respondents were of the ingredients (leaves of Kadam along with molasses) followed by 42% (leaves of Kadam and Mango tree) and 22% (oil from seeds of Totka Bhindi with Arandi oil) used in indigenous preparation, whereas, these practices were adopted by 46%, 36% and 18% of the respondents respectively.
5. **Pneumonia -** Most of the livestock owners (52%) were aware of applying of Mustard oil with Lahsun, 40% were aware of applying leaves of Bagnai and 38% were aware of applying Onion and Black pepper in mustard oil in case of pneumonia and these practices were adopted by 48%, 32% and 28% of the livestock owners respectively.
6. **Bloat -** In case of bloat, most of the livestock owners (42%) were aware of the ingredients (Ajawain, Hing and Black salt) followed by 36% (Onion, Ginger and Hing) and 28% (Tisi oil and Turpentine oil) used in indigenous

preparation. These practices were adopted by 34%, 30% and 20% of the livestock owners respectively.

7. **Gastrointestinal parasites** - The study indicated that 46% livestock owners were aware of use of seed of Palas, 32% were aware of use of leaves and bark of Farhar, 30% were aware of use of fruits of Baibidan and 24% were aware of use of rice almost burn to ash for treatment of gastrointestinal parasites and these practices were adopted by 40%, 28%, 22% and 18% of the livestock owners respectively.
8. **Foot and Mouth Disease** - For the treatment of foot lesions in FMD, majority of the livestock owners (72%) were aware of washing the hooves with lime water and Karanj oil, 58% were aware of use of phenyl and 50% were aware of making the animal walk in canal/river water or mud. These practices were adopted by 68%, 52% and 50% of the livestock owners respectively.

   For the treatment of mouth lesions in FMD, 46% livestock owners were aware of applying leaves of Arhar and Fitkiri and 42% were aware of applying Rhizome of Mand and Brinjal after cooking in Ghee. These practices were adopted by 42% and 38% of the livestock owners respectively.
9. **Wound** - In case of wound, most of the livestock owners (54%) were aware of the ingredients (Haldi and Ghee) followed by 38% (Banpyaj, Bankareila and slice of Sagwan) and 30% (Karanj oil with Pothya fish) used in indigenous preparation. These practices were adopted by 52%, 36% and 24% of the livestock owners respectively.
10. **Ectoparasitic infestation** - Majority of the livestock owners (74%) were aware of application of leaves of Karanj/Karanj oil, 64% were aware of application of burning of Neem leaves near the animal, 40% were aware of application of Gamexine with cow dung ash 36% were aware of application of dung ash with leaves of Saripha.

Table.1 Extent of awareness and adoption of Indigenous practices among livestock owners in Ranchi district of South Chhotanagpur division of Jharkhand

Sl No.	Indigenous practice	Awareness level		Adoption level	
		f	%	*f*	%
1	**Diarrhoea**				
(a)	Decoction of barks of Kendu (*Diospyros cordifolia*) and Bankulthi (*Atylosia scarbaeoides*)	26	52	25	50
(b)	Fresh fruit of Aonla (*Emblica officinalis*) in empty stomach	22	44	20	40
(c)	Unripe mango, barks of Pojo (*Bombax ceiba*) and jamun (*Syzygium cumini*)	17	34	15	30
(d)	Ajawain, Methi, Sauf, Sonth and rock salt with molasses	14	28	11	22
(e)	Juice of Kurchi (*Holarrhena antidysenterica*) leaves	10	20	07	14
(f)	Juice of Bachera (*Termenala bellirica*) leaves	08	16	05	10
2	**Fever**				
(a)	Stems and leaves of Kalmegh (*Andrographis paniculata*)	27	54	24	48

(b)	Preparation of mixture of Akandi, Ajawain and Golmirch (*Piper nigrum*)	23	46	22	44
(c)	Smoke of Begna leaves is applied all over the body of animal suffering from fever	19	38	15	30
3	**Fracture**				
(a)	Stem of Harkankan (*Lea maerophyla*), bark of kusum and rhizome of Haldi	39	78	35	70
(b)	Powdered root or paste of the stem of the Harjora (*Vitis rependa*)and Dub grass	36	72	34	68
4	**Constipation**				
(a)	Leaves of Kadam (*Anthocephalus indicus*) along with molasses	25	50	23	46
(b)	Leaves of Kadam and bark of Mango tree	21	42	18	36
(c)	Oils from seeds of Tolka bhindi (*Jatropha curcas*) with Arandi (castor) oil	11	22	18	
5	**Pneumonia**				
(a)	Application of mustard oil with Lasun (*Allium sativum*)	26	52	24	48
(b)	Leaves of Bagnai (*Capparis horrida*)	20	40	16	32
(c)	Onion and Black pepper (*Piper nigrum*) in mustard oil	19	38	14	28
6	**Bloat**				
(a)	Ajawain, Hing and Black salt	21	42	17	34
(b)	Onion, Ginger and Hing	18	36	15	30
(c)	Tisi oil and Turpentine oil	14	28	10	20
7	**Gastrointestinal parasites**				
(a)	Leaves and bark of Farhar (*Erythrima indica*) with molasses	16	32	14	28
(b)	Fruit of Baibidan (*Embellia robusta*) with molasses	15	30	11	22
(c)	Seed of Palas (*Butea monosperma*)	23	46	20	40
(d)	Rice almost burnt to ash	12	24	09	18
8	**FMD**				
	Foot lesion				
(a)	Making the animal walk in canal/river water or mud	26	52	25	50
(b)	Washing the hooves with lime water and Karanj oil (*Pomgamia pinnata*)	36	72	34	68
(c)	Washing with phenyl	29	58	26	52
	Mouth lesion				
(a)	Leaves of Arhar (*Cajanus indicus*) and Fitkiri	23	46	21	42
(b)	Rhizome of Mand and brinjal after cooking in Ghee	21	42	19	38
9	**Wound**				
(a)	Haldi (*Curcuma domestica*) heated in Ghee	27	54	26	52
(b)	Ban Pyaj (*Urginia indica*), Ban Karla (*Momordica dioca*) and slice of Sagwan (*Tectona grandis*)	19	38	18	36

(c)	Karanj oil with Pothya fish (*Puntius spp*.)	15	30	12	24
10	**Ectoparasitic infestation**				
(a)	Leaves of Karanj (*Pogmia pinnata*) or Karanj oil	37	74	34	68
(b)	Burning of Neem leaves near the animal	32	64	30	60
(c)	Gamexine with cow dung ash	20	40	17	34
(d)	Dung ash with leaves of Saripha (*Annona squamosa)*	*18*	*36*	*15*	*30*

Hence, concluded, the present study showed wide variation in awareness and adoption of different ITKs. The finding revealed that 10 to 78 percent of livestock owners were aware of ITKs and 2 to 70 percent had adopted ITk's in their animals. Since these ITKs are of great importance because of their low cost and no side effects, it needs to be further validated and commercially exploited so that it can help the rural livestock owners.

References

Bizimana Nseknye (1997). Scientific evidence of efficacy of medicinal plants for animal treatment, Ethno veterinary Medicine: Alternatives for Livestock Development, Proceedings of an International Conference held in Pune, 4-6 November, 2: Abstracts, pp.11-12.

McCall and Michael (1996). ITK in East African farming system. *Indigenous Knowledge and Development Monitor*, 4 (1): 20-22.