Assessment of Ethno Veterinary Practices in the Treatment of Major Diseases of Large Ruminants in Damboya woreda, Kembata Tembaro Zone of Southern Ethiopia

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Abstract
There are many medicinal plants scattered all over Ethiopia, and a sizable members of them have been used for animal diseases. Rationalizing and validating the use of each medicinal plant requires through research medicinal plants in veterinary health care. A crossectional study was conducted to examine the traditional veterinary medicinal plants used for large ruminant disease treatment in Damboya woreda, Kembata Tembaro zone of Southern Ethiopia. Multistage sampling technique was used to select the study groups (respondents). Hierarchically selection was made from zone to districts and peasant associations. *Bracken fern, Veratumspp, Cordia africana, Yenisrqizen, and Yechereqaqizen* are some of the medicinal plant species used in the treatment of common livestock diseases in the study area. The findings of this research might benefit the communities in opening their ways to diversified adoption of traditional veterinary medicinal practices used in large ruminants' health caring and also help the economic developments of the farming community, hopped to provide possible way of solving problems encountered in the adoption and utilization of ethno veterinary medicinal practices in the study area.
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1. INTRODUCTION
Livestock is a major capital reserves for farmers and pastoralists and play significant role in the farming economy of Ethiopia. The sector provides different products and by products such as milk, meat, egg, wools, hide and skin (FAO 1996). They are capable of changing poor quality feeds into human food. Large ruminants and small ruminants are important domestic animals in the tropical livestock systems. Farm animals special dairy cattle have always formed an integral part of Ethiopian culture and civilization from ancient times, our ancestors had recognized that cattle keeping would contribute to worlds the economic wellbeing of the people (FAO 1996).

Ethiopia has the largest live stock population in Africa. According to a recent estimate, there are about 31 million head of cattle, 27 million sheep, 24 million goats,7.02 million equine (Horse, Mule and donkeys), one million Camels and 56 million poultry are found in the country. Correspondingly, there are myriad of disease that affect this livestock population (Ethiopia e-journal for Research and innovation foresight. Vol2,No1 2010).

Considering the inadequate modern veterinary health services in the country commensurate with tackling the problem, traditional ways of treatments appear to be available alternative approach. The traditional medicine and methods have been woven in to the culture of local communities for a long time. There are many medicinal plants scattered all over the country, and a sizable members of them have been used for animal diseases. Rationalizing and validating the use of each medicinal plants requires through research medicinal plants in veterinary health care as indicated by Fekadu (2012).

In Ethiopia, managements of large ruminants is largely in traditional hands. In the southern Ethiopia and likes in many parts of the country, large ruminant production and productivity is impeded by various constraints which includes health. This constraint can adequately be alleviated or curtailed by modern or western style technologies such as vaccinations, chemoprophylaxis /chemotherapy/ feeding animals with formulated ration and proper housing. Large ruminants in the study areas are largely in the hands of rural farmers. Since these farmers are mostly located in the rural areas, they are scarcely aware of veterinary and improved Management services. In some case, many of them who are aware of the services cannot afford to pay for them because they are expensive.

However, the rural community have developed indigenous methods on technologies for coping with constrains. Among the various indigenous methods is the use of herbs to manage animal diseases. The knowledge bases these herbs different not only from region to region but also with in communities. It has been developed through trials and error and deliberate experimentation. Therefore, it less systematic, less formalized, and not universally recognized as a valid methods of disease control in animals (Matekarre and Bwakura 2004).

Damboya woreda is located in south nation nationalities and people region (SNNPR) at kembata zone,324 k/m far from Addis Abeba ,106 k/m from Hawasa and it has 19 kebeles. Research was conducted based on the population of animals in this woreda. Research conducted in the area to estimate the total population of animals

revealed that there were about 49982 heads of cattle, 12991 sheep, 8790 goats and 5432 equine (Damboya woreda Agriculture office, 2013).

In Damboya woreda, there is no any written document regarding uses of medicinal plants in the treatment of large ruminants as well as other animals. Survey base on ethno veterinary practices and the frequency of diseases with severity has not been conducted yet. However, the land is occupied with different species of medicinal plants and a few traditional veterinary healers. Therefore the collection of local information about disease causation, prevention and treatments is basic requirements for animal improvements program.

STATEMENT OF THE PROBLEM

The study area encloses several peasant associations (PAs) which have natural level of topography and contains certain type of tribes having different attitudes; as it is rural kebeles where most activities are inherited from traditional and cultural accepted beliefs. Besides, the area is characterized by non availability of adequate veterinary services, lack of awareness in exercising veterinary services, lack of trained professionals and etc. Therefore the study at hand asses the trends in utilization of ethno veterinary drugs/herbal drugs/ in large ruminant animal health care in study area. The adoption decision towards the given areas ethno veterinary medicinal practices are very variable. This generates research questions to be addressed" like: what are the common disease of large ruminants, their symptoms and seasonal prevalence in the study area?; what are the disease control or prevention strategies /measure/ being practiced in the area (traditional or modern type)?; what are the probable reasons of using ethno veterinary practices in the area?; what are the major plants species and plant products used for traditional treatments practices?; what are the methods of preparation of plants species used for the treatment/management of specified large ruminant diseases?

OBJECTIVES OF THE STUDY

The overall objectives of the study were to contribute to improvement of livestock health care and production for the betterment of the poor and their families particularly to rural communities.

Specific objective include:
  ➢ Identifying the common disease of large ruminants, their symptoms and seasonal prevalence in the study area
  ➢ Describing of disease control or prevention strategies /measure/ being practiced in the area (traditional or modern type)
  ➢ Identifying of the probable reasons of using ethno veterinary practices in the area
  ➢ Identifying the major plants species and plant products used for traditional treatments practices

SIGNIFICANCE OF THE STUDY

This study was conducted to examine the traditional veterinary medicinal practices used for large ruminant animal health in the study area. The findings of this research might benefit the communities in opening their ways to diversified adoption of traditional veterinary medicinal practices used in large ruminants' health caring and help the economic developments of the farming community, hopped to provide possible way of solving problems encountered in the adoption and utilization of ethno veterinary medicinal practices in the study area. Hence, the community traditional healers and modern veterinary services center will be benefited from this study.

LIMITATION OF THE STUDY

Time shortage, financial problem and scarcity of related literatures were some of limited factors during the whole research work.

DELIMITATION OF THE STUDY

The scope of this study limited to gender role in socio economic status of the local farmers and adoption of ethno veterinary medicine practices in study area. The study did not explore their family size, cultural barriers or other people characteristics on the time and resources.

2. MATHERIALS AND METHODOLOGY

2.1. The Study Area

This study was conducted in damboya woreda of Kembata Tembaro zone, which is found in southern nation nationalities and people region of Ethiopia. The woreda is located 324 k/m far from Addis Abeba and lies at an altitudinal range of 2200 – 4000m with annual rain fall between 1000-1200 mm and mean annual temperature of 18 -24C range. Geographically it is located at a 7.23 7.45 N latitude and 37.5 -38 -00 E longitude (Damboya woreda agriculture office reports, 2012).

2.2. Sampling Technique and Sample Size Determination

Multistage sampling technique was used to select the study groups. Hierarchically selection was made from zone to districts and peasant associations (PAs) (Ayele et al., 2016). Nine kebeles were selected purposively from the district and these was areas where the opportunity to use veterinary clinic or veterinary services was less accessible. In other words, remote areas were prioritized to be selected in order to get mature herbal list and specialist.

STAGE ONE

Comprised the randomly selection of six autonomous communities (PAs) namely Bonga , Yebu, Kazala, Hanjalalamo, Wndo, Gendela, Megere, Kota Kombola and, Ambaricho   from the 19 P.AS of the woreda.

STAGE TWO

Comprised the randomly selection of four village from each of the nine kebeles giving a total of 36 villages.

STAGE THREE

This was a final stage involving the random selection of farmers from each of the 36 village making a total of 384 farmers / respondents /. The sample size for the structured questionnaire interview was determined using the formula described below by Thrusfield (2007) with the assumption of 50% expected prevalence due to the absence of previous study in the area. In each village 4 people from communities and 2 traditional healers were selected.

$$n = \frac{Z^2 \, X \, P(1\text{-}P)}{d^2}$$

Where
n=required sample size
z=confidence level at 95% (standard value of 1.96)
p = expected prevalence   d = is the absolute precision (0.05)

2.3. RESEARCH DESIGHN

This was a survey research planed to be done using correlation statistical designs. Therefore, the research used procedures appropriate from the corresponding research methods in the study design.

2.4. METHOD OF DATA COLLECTION

Instrumentation

The instruments used in this study were personal interviews on the bases of structured questionnaires.   The questionnaires were prepared to contain information based on objectives of the study /research, allowed to overlap for different categories of the respondents /informant/ households traditional animals disease healers. This overlapping helps to collect factual information, views and opinions on the same issues from different people engage in different tasks.

Sampling Procedures

This research followed purposive sampling techniques as discussed before. This was done by primarily identifying of people from the communities those who live around the study area. Secondarily, selection was take place randomly based on their approaches to the target area. The total sample size selected from each kebele was a minimum of 50 people. Traditional animal diseases healers, households Kebele leaders, elders, women and veterinary workers were included.

3. METHOD OF DATA ANALYSIS

A database was constructed in Microsoft Excel® to store the data. Descriptive analyses were conducted using SPSS package version 16. A general linear model was used to compare different variables related with the study.

4. RESULTSANDDISCUSSION

4.1. Socio demographic Characteristics of the Respondents

Data on age, sex, family size and education status of the respondents are described on Table 1. Overall, out of the total (n =384) respondents interviewed for the study, 92.4% of them live in rural areas and have comparable sex categories show that majority (71.9%) of the farmer were male headed households while the remaining (28.1%) were female respondents, this did not differ between the districts. 11.7% of the respondents were illiterate being highest in Damboya districts. An over view of the age structure of sampled population shows that 25-45 years of age accounts for 33,3% of farmers, while working age group 46-66 years old constitute (40.1%). Also the age group >66 years old respondents farmers constitutes (26.6%) as old age group structured. Average Family size of sampled farmers was found about eight. Regarding family distribution (24.5%) of the family have 1-4 family size and (30.7%) have 5-8 family members and the rest show that majority (44.8 %) of the farmers had family size of

more than eight family members.

Table1:. Age, sex, family size and education status of the respondents

Age Group			Sex category			Family size			Education status		
	N	%	N		%	N		%	N		%
25-45 years	128	(33.3)	M	276	(71.9)	1-4	94	(24.5)	Illiterates(0)	45	(11.7)
46-66 years	154	(40.1)	F	108	(28.1)	5-8	118	(30.7)	Grade(1-6)141		(36.7)
>66 years	102	(26.6)				>8	172	(44.8)	Grade(7-8)	80	(20.8)
									Grade(9-12)107		(27.9)
									Graduates()	11	(2.9)

*N= number of respondents

Regarding to the level of education the result show that a greater proportion of the respondents (36.7%) spent 1-6 years in primary formal school education, while (20.8%) of farmers spent grade 7-8 or junior education, about (27.9%) of the respondents spent 9-12 years. However, about (11.7%) of the respondents had no formal education or illiteracy. The mean number of farmers spent the level of education in graduates was found to be only (2.9).

From the above table, it could be inferred that most of the farmers received on form of formal education or the other with majority receiving secondary and graduated level of education. From this result, it could be identified that the study area was dominated by farmers who were still in their active ages and can thus engage actively in agricultural production. Also, the age of the farmers could possibly have offered them a sufficient period of time to experiment on an ethno veterinary medicine before validating their efficacy in livestock health management. Regarding to the family size has the potential of increasing farmers' access to agricultural information as household members could belong to several farmers group and the male farmers in the study area engage more in livestock production than their female group.

Also according to table1 description, literacy has an important role played in raising the level of awareness and practice to utilizing of various indigenous knowledge and practical to insure good harvest from any animal health caring activities. Level of education an important parameter used in assessing the level of exposure of farmers to education and information, that for new technologies utilization & at the same time it has also an implication in the way of decision making of animal health management activities.

4.2. Occupation of the respondents, livestock categories and purpose of rearing cattle in the study area

As shown in the table 2 below, distribution the number of animal about (46.6%) of the respondents owned 3-6 cattle, while (30.7%) of the respondents have 1-3 cattle, also(22.7%) of the farmers owned more than six cattle. Regarding to sheep and goat about (51.1%) of the respondents owned 1-3 sheep and goats, about(28.1%)of the respondents were owned 3-6 sheep and goats and about (20.8%) were respondents owned more than six sheep and goats. Also (84.4%) of the respondents owned 1-3 equine about (11.7%) of the beneficiaries headed 1-3 equine and only (3.9%) of the respondents owned more than six equine. Regarding to the poultry about (17.4%) of the respondents categorized owned only 1-3 poultry, while (46.4%) of the beneficiaries was headed 3-6 poultry and(36.2 %) of the respondents kept six and more than six chicken.

Table 2. Occupation of the respondents, livestock category and purpose of rearing cattle

Occupation	%Total	Livestock Type			Purpose of cattle rearing		
		Category	Herd size	Total %	Purpose	Response(N)	%
Farmer	292 (76)	cattle	1-3	30.7	Meat purpose	62	(16.2)
Employee	33 (8.6)		3-6	46.6	Milk source	148	(38.5)
Merchant	41 (10.7)		>6	22.7	Income source	62	(16.2)
Other	18 (4.7)	Sheep &Goats	1-3	51.1	Draught power	94	(24.4)
			3-6	28.1	Socio cultural	18	(4.7)
			>6	20.8	Others		
		Equine	1-3	84.4			
			3-6	11.7			
			>6	3.9			
		Poultry	1-3	17.4			
			3-6	46.4			
			>6	36.2			

This can be feasible only with the adoption of ethno veterinary practices through continuous utilization of herbal drug to treat large ruminants common diseases in the target area. Regarding to occupation of the study area, (76%) of the respondents were farmers, while (10.7%) of them were merchants. Only (8.6%) of the informant were employee in different organization in the target area and about (4.7%) of the respondents were working in other occupation. The distribution of farmers by purpose of cattle rearing in Table 2 show that majority (38.5%)

of farmers have kept animal rearing for milk production. Also (24.4%) respondents perceived livestock for drought power and transportation, while (16.2%) indicated using of animal for purpose income generation. 16.2% of farmers used animals for purpose of meat production and about (4.7%) of respondents for various socio cultural purpose.

A correlation was sought between purpose of livestock rearing and farmers owned. There was a positive significant relationship between stock rearing and owned by respondents. However, when the comparison was made on the bases of informants, a significant relationship was observed with respect to respondents study area. Generally, farmers keep large ruminants as source of milk production, income generation during emergencies, meat production, drought power and transportation and Socio cultural purpose. There for, it is surprising that wealthier farmers may keep a large numbers of large ruminants. However in the rural community's farmer's large stock for prestige purpose (Ekong, 1988).

4.3. Major Diseases of Large Ruminants and the Common control Practices in the area

About 18 diseases condition were identified by the respondents in the study area (Table 3). From this 18 disease conditions 6 common diseases like Anthrax, Black leg, Pasteurollosis, Cowdrosis & Mastitis are identified as the major disease of large ruminants in the study area which is in line with the report of Ayele et al. (2016). As can be observed from table 3, Anthrax & Blackleg diseases were occurred mostly in the first wet and first and last dry season. Shivering, difficulty in breathing, nostril and anal bleeding has been described to be major symptom of anthrax disease and painful swelling on back, leg, lameness &crepitating sound at back region in palpation have been seen to be Blackleg disease. Although Mastitis & Cowdrosis /keimkeimo/ occurs throughout the year more cases were seen during   rainy seasons, and pasteurollosis /Gergeda / were occurs mostly during the dry seasons.

Table 3. Major Diseases of Large Ruminants and the Common control Practices in the area

No	Disease Type		Response total		Percentage control practices		
	Local Name	**Scientific name**	**N**	**%**	**Traditional**	**Modern/veterinary**	**%**
1	Hixichchu	Anthrax	98	(25.5)	12 (3.1)	119	(30.9)
2	Mureto	Blackleg	76	(19.8)	124 (32.3)	73	(19)
3	Keimkeimo	Cowdrosis	63	(16.4)	83 (21.6)	39	(10.2)
4	Hantimosu	Mastitis	56	(14.6)	64 (16.7)	21	(5.5)
5	**Gergedimosu**	**Pasteurollosis**	**50**	**(13)**	**58 (15.1)**	**85**	**(22.2)**
6	**Others**		**41**	**(10.7)**	**43 (11.2)**	**47**	**(12.2)**

Entries in table3 shows that (30.9%) of farmers relied on vaccination of their animals to prevent /avoid Anthrax/Hixichi disease/ and (3.1%) of the respondents adapted to different herbal drug before the disease incidence in the area.Also (19%) of the farmer were used the modern veterinary methods to control/prevent Blackleg/Mureto disease and about (32.3%) of the respondents were used the method of traditional practices.

While (10.2%) of the respondents used modern vaccination methods to prevent of Cowdrosis /keimkeimo and about (21.6%) of the informants used different herbal drugs. It was observed that up to (5.5%) of the respondents used modern methods to control/prevent Mastitis/Hantimoso and about (16.7%) of traditional preventive measures used in their farms. About (22.2%) of the farmers was used modern methods to prevent or control of Pastuerollosis /Gergedamoso and traditional (15.1%). This implies that the respondents have identified that major diseases in the target area. Also the other diseases identified in the study area about (12.2%) of the respondents were used modern preventive or control measures for these other different diseases and by traditional methods (11,2%). Generally from the above table it could be concluded that most large ruminants farmer in the study area are conscious of the harmful effect of disease agent andundertake management practices that will prevent infection in their farms.

Veterinary /live stock/ extension workers should therefore inform farmers on the pre-disposing factors of these disease and ways of preventing it since can cause situation of economic losses. Cold ,heat ,inadequate feeding & hygiene are most of predisposing factors .Other Disease Condition identified were foot and mouth disease (FMD),pneumonia, Dermatophilosis, bloating, retained of placenta, diarrhea, swelling and tumor. According to respondents description also show that mange mite /scabies /, fleas & ticks were the disease identified in the study area.However mange mites appear to pose more problems. Although there was always allow mortality rate in animals attached by mange, the morbidity was always high, with the resultants poor performance.

4.4. The probable reason of using ethno veterinary practices in the treatment of large ruminant diseases in the study area

According to table 4 below, that majority (25.5%) of the farmers perceived ethno veterinary as cheap or low cost and affordable respectively. Also (24.5%) perceived it to be easily or readily prepared due to the availability of raw material with the environment. About (13%) perceived in to have high cultural acceptability than modern veterinary medicine, while (15.6%) indicated that they require relatively little or no special training for using them. In the same manner, about (21.4%) indicated that they cause no any side effect rather the modern veterinary

medicinal practices.

Table 4 The probable reason of using ethno veterinary practices in the treatment of large ruminant diseases in the study area.

No	Reason for using ethno veterinary practice	Response total	Percentage
1	Easily or readily available	94	24.5
2	Easy cost /cheap to get	98	25,5
3	No any side effect than modern veterinary drug	82	21.4
4	Require relatively little or no special training	60	15.6
5	Have high cultural acceptability than modern veterinary drug	50	13
	Total	384	100

As it was discussed which presented about the educational back ground of respondent, the highest number of beneficiaries were with minimal education. Because of their minimal education, beneficiaries have no idea whether the using modern veterinary medicine in the management of livestock health. These perceptions perhaps reflect the possible reasons why ethno veterinary medicine is popular among local livestock farmers. According to respondent's information ethno-veterinary medicinal practices gaining importance in management of large ruminants' disease in the study area. This according is because they are locally available and affordable to farming communities. They are also known to provide low cost animal health care alternative for simple health management in the rural communities and relatively simple to prepared and administer" no any side effect and have highly cultural acceptable than modern veterinary medicinal practices.

4.5. The common plant species used in the treatment of major diseases of large ruminants

Table 5 present the list of common plants species that are used in the treatment of large ruminants' diseases and their seasonal availability in the study area. About (84.8%) plants were identified by respondents for the treatment of major disease of large ruminants.

Table 5. List the common plant species used in the treatment of large ruminant diseases

Local name of the plants	Common name	Botanic name	Wet	Dry	Both season
Sena	Digita'enchat				x
Gembelaka	Tikurenchat				x
Dabdabe					x
Kosho	Tombaho	Nicotinometabbacum	x		
Telecho	Tena'adm				x
Lomicho	Lommi				x
Tossa				x	
Messena	Bissana				x
Chaina					x
Seratita			x		
Gidodila					x
Kelala				x	
Musurnga				x	
Omboshaka					x
Haniga			x		
Kegile	Red false banana				x
Tosina	Tosign				x
Bishbisha			x		
Ginjivila			x		
Worerabo					x
Dukecho					x
Matichu					x
Tudicho	Abeshahareg		x		
Mechareka	jImsweed torn spp	Datura stramonium	x		
Gotimoko	Erate	Veratumspp			x
Haja				x	
Wanziteffa	Wanza bark	Cardia africana			X
Gdodila					x
Ulatenchuta	Abeshakosso		x		
Omoshoga					x

Local name of the plants	Common name	Botanic name	Seasonal availability		
			Wet	Dry	Both season
Kelaleta				x	
Geneno	Erate				x
Shomoloteffa					x
Ulla beshinka	Yemidrmashila	Lantana camera	x		
Gizawa	Gizawa	Gizotia Abyssinia			x
Ga'okuta				x	
Kurumu		Brakenfern		x	
Chiabeshinka	Yewofmashila	Petridiumaquilinum	x		
Hombororita	Emboy	Solaniumspp			x
Cherata	Qulqual	Quercus			x
Tonthona					x
anamurchu					x
Shishonda			x		
Harechua					x
OTHERS					x
Zeyita	Oil				x
Gazu	Kerosene				x
Samuna	Soap				x
Azuta	Milk				x
Buru	Butter				x
Gotichinu	Hayne faces				x
Gotiafalita	Hayne liver				X
Mocha	Qocho juice				x
Agenchichinu	Yecherekaa're				x
Gaqichichinu	Yenisra're				x
Bullu	Biqil				x

4.6. The plant parts used in the treatment of common cattle diseases in the study area

It was described that various plants parts; the bark, root, leaves and seed were widely in use as remedies for a variety of diseases conditions in the traditional setting for large ruminants. Information resulting from the respondents, traditional healer and focus group discussion   (FGD) reveal that most of these plants used in local medicine contain potent medicine. According to respondent information it could be noted from the result that, although some of the plants were disease specific, for example Turezo, for Internal parasite, Musuringa/shrubs spp for mastitis,Gizawa /GizotiaAbyssinia used forkeimkeimo /Cowdrosisdisease,Bishbisha&haja /shrubs spp used for the treatment of Gergedimosso /pastuerollosis disease, Mechareka/ Datura stramonium used for the treatment of swelling and kegle /red false banana for retained placenta.

Others appeared to provide multipurpose remedies, preventing or curing several kind of disease, for example Gidodila/Gembeleqa /tree spp and messana /trees sppswas used to treating anthrax, cowdrosis, blackleg and mastitis diseases. While Dabdabe /shrubs sppa plant was used for treating Mastitis, Blackleg, and Diarrhea diseases. This suggests that the plants with multipurpose uses may contain more than one type of physiological activities principles. Also it was observed that different parts of the same plants and different components of the same plants part might be used for different purpose ,for example ;.the leaves of Messena /tree spp were informed used to treat Mastitis diseases , while the bark was used to treat blackleg disease in the study area.

Table 6 Methods of preparation of plants species for treatment of specified diseases.

No	Type of disease	Plants used In local name	Plants used in common name	Plants part used	Methods of preparation
1	Anthrax	Gembeleqa		leaves	Squeezing & extract water to drench
		Gidodila		root	Pound & extract H2O to drink in po
		Kelaleta		root	In water squeezed & drench
		Hare chu'a		root	Roast with H2O drench mix in butter to drink
		Geneno	Veratumspp	Leaves	Squeeze in H2O & drench
		Tossa		Leaves s& bark	Squeeze in water & drench
2	Blackleg	Mesenteffa		Bark& leaves	Pound & extract H2O mixed with in butter to drench animals
		Shoimolo		Bark	Roast grind & mix with in H2O
		Gembeleka		Leaves	Squeezing in water &drench animals
		Gidodila		Root	Pound & extract water to drench animals
		Matichu		Leaves	Squeezing in water &drench animals
		Wanzi-teffa	Cordiaafricana	Bark	Pound & extract H2O mixed with in butter to drench animals
		Dabdabe		Root	Pound & extract water to drench animals
		Wolenga		Root &leaves	Pound & extract H2O mixed with in butter to drench animals
		Ombosheka		Bark &leaves	Pound & extract H2O mixed with in butter to drench animals
		Dukechuta		Leaves	Squeezing in water &drench animals
		Che'a		Leaves	Squeezing in water &drench animals
		Chaina		Leaves	Squeezing in water & mix oil to drench animals
		Gotidinicha		Root	Pound, grind & extract water to drench animals
		Qondoberbere		Leaves	Macerate in water &drench animals
		Gotimokuta	Veratumspp	Leaves	Squeezing in water & mix in soap drench animals
		Seratita		Leaves	Squeezing in water &drench animals
3	Mastitis	Museriga		Root &leaves	Massage of the udder& drink with in H2O
		Gidodila		Root	Pound & extract H2O mixed with in butter to drench animals
		Dabdabita		Root	Massage of the udder& drink with in H2O

No	Type of disease	Plants used In local name	Plants used in common name	Plants part used	Methods of preparation
		Seratita		Root	Massage of the udder& drink with in H2O
		Messana		Root&leaves	Roast inH2O to drench& massage the udder
	others	Gaqichichinu	Yenisrqizen		Infusing in teat orifices
		Agenchichinu	Yechereqaqizen		Infusing in teat orifices & massage the udder
4	cowdrosis	Gizawa	Gizotiaabissynia	Leaves	Squeezing in water &drench animals
		Gembelaka		Leaves	Squeezing in water &drench animals
		Ullabeshinka	Lantana camara	Root&leaves	Pound & extract H2O mixed with in butter to drench animals
		Telechuta		Leaves	Squeezing extract water &drench animals
	others	Gotiafelita	Hyena liver		Powder form a paste & give to eat with food
		Gotichinu	Hyena faces		With in water and drench animals
		Agenchichinu	Moon faces		Squeezing in water &drench animals
5	pasteurollosis	Bshbisha	Shrubs spp	Leaves	Squeezing in water &drench animals
		Haja	Shrubs spp	leaves	Squeezing in water &drench animals
		Burnig in metal		Swelled parts	Burning swelling parts of animals
6	Retained placenta	Kegile	Red false banana	Leaves,root& stem	Chopped and feed to animals
		Fugiujumu		leaves	Feeding with other food
		Hamilu	yabeshakabage	Leave	Feeding with other food
		Yitabulu	biqil	Grain	Feeding with other food
7	Bloating	Kosho	Nicotinometabacum	leaves	Squeezing, extract water &drench animals
		Geneno	Verataumspp	leaves	Squeezing extract water &drench animals
		Haranja	endod	leaves	Squeezing extract water &drench animals
		Messana		leaves	Squeezing extract water &drench animals
		Gotidinicha	Veraumspp	root	Pound &extract H2O to drink animals
		Janjibelu	ginger	root	Pound &extract H2O to drink animals
	others	Oil	oil	Direct used	Drench to animals
		Salts	Salts	Direct used	Drench to animals
		Butter	Butter	Direct used	Drench to animals
		Kerosene	Kerosen	Direct used	Drench to animals
		Soap	soap	Direct used	Drench to animals
8	Ticks &mange mites	Tontona		leaves	Squeezing in water & apply all affected part
		Ada	Braken fern spp	Leaves	Squeezing in water & apply all affected part

No	Type of disease	Plants used In local name	Plants used in common name	Plants part used	Methods of preparation
		Seniquta		leaves	Squeezing in water & apply all affected part
		Chaina		Leaves	Squeezing in water & apply all affected part
		Kakechu	Nicotinometaba acum	Leaves	Squeezing in water & apply all affected part
		hombororta	Solaniumspp	fruits	Pound &mixed in kerosene to aplied
	others	Gazu	Kerosene	Direct used	Pound & mix in kerosene & applied affected
		Dira	Suret	Direct used	Mixing in water &applied affected parts
		Futebucha	Yefilfelafer	Direct used	Mixing in water &applied affected parts
9	Internal parasite	Turezu		Leaves	Squeezing in water &drench animals
		Hebiquta		Leaves	Squeezing in water &drench animals
		Aderiquta	Veratumspp	Leaves	Squeezing in water &drench animals
		Ga'oquta		Leaves	Squeezing in water &drench animals
		Timbila	Quercusspp	Leaves	Squeezing in water &drench animals
		Temmu		Flowers	Pound &extract H2o to drench animals
		Anemurchu		leaves	Squeezing in water &drench animals
		Bontiwoka		Grain	Roast and feed animals
10	swelling	Machareka	daturastramoniu m	grain	Pound ,powder makes &applied on affected area
		museringa		Leaves	Incised the swelled area &insert the squeezed material
		Homborore	Solaniumspp	fruit	Pound &mixed in kerosene to applied
111 11	diarrhea	Turezo		Leaves	squeezing & extract H2o to drench animals
		Dabdabe	Shrubs spp	Leaves	Squeezing & extract H2o to drench animals
12	pneumonia	Kosho	Nicotinomtabac um	Leaves	Squeezing & extract H2o to drench animals
		Hanegicho		Leaves	Squeezing & extract H2o to drench animals
		Werikurumo	Bracken fern	Leaves	Squeezing & extract H2o to drench animals
		Tudicho	Shrubs spp	Leaves	Squeezing & extract H2o to drench animals
		Bukuko		Leaves	Squeezing & extract H2o to drench animals
		Ginjivila		Leaves	Squeezing & extract H2o to drench animals
		metinitalomen	Salt with lumen	fruit	Pound &mixed in kerosene to drench
13	Foot & mouth disease	Lalishaila	Animal feces	Direct used	Boiling with in water & applied by affected parts

No	Type of disease	Plants used In local name	Plants used in common name	Plants part used	Methods of preparation
		Mocha	Kocho juice	Direct used	Boiling with in water & applied by affected parts
		Chericho	Quercusspp	leaves	Squeezing ,extract H2o &applied by affected area
		Negagecho		leaves	Squeezing ,extract H2o & applied affected parts
		Gumichoshukula	Yemidakoshihona	Direct used	
14	tumor				Inject one animal spp tumor blood by other animal spp tumor

Many plants have been implicated for treatment of different common disease in the study area for example anthrax, blackleg, pastuerollosis, mastitis, bloating, pneumonia and ticks infestation& mange mite. As per the respondents' description, apart from plants, rural household also used traditional/indigenous methods to treat different livestock diseases in study area. For instance, ticks and mange mite the most serious cause was treated with palm oil, salt, kerosene, Thontona and sena amongst others.

5. CONCLUSION AND RECOMMENDATION
CONCLUSION
The study indicated that indigenous knowledge on ethno-veterinary medicine has remained the most rely for livestock diseases among rural farmers in Damboya district. Findings from the study indicate the use of ethno-veterinary medicine to treat diseases of their large ruminants in study area. These were perceived to be easily or readily available, have no any harmful effect on live stock, have high cultural acceptability than modern veterinary medicine, easy cost /cheap to get, simple, have no require little or no special infrastructure for their use and to be environment sustainable. The use was significantly related to directly socio demographic characteristics of respondents like that age group, sex category, family size and educational status.

RECOMMENDATION
Based on the study results and findings, the researcher would like to give the following recommendation.
- ✓ Awareness should be developed in the community there for they will get information on how to be productive in the animal's husbandry field by using ethno-veterinary medicinal practices.
- ✓ The extension should be also convincing local health healers of the value of a greater knowledge of nature as well as socio-cultural context of plants and their ascribed medicinal and other effects.
- ✓ Since there are positive relationship between in ethno-veterinary medicinal practices and using farmers in animal health management, the governments and other professionals should design how to balance them. These will play great roll in increasing the number of beneficiaries.
- ✓ Veterinary / livestock extension workers should therefore educate farmers on the proposing factors of the major animals diseases and ways of preventing it since it can causes serious economic losses, or encourage them of any traditional practices use to prevent it.
- ✓ Extension agent should be work hand in hand with veterinarians on the possibility to blend both the modern medicine with traditional treatment, which will go a long to improve animal's health care in the rural area.
- ✓ Capacity building and establishment of livestock health center at nearest of farmer in remote areas should be facilitated. Minimizing the expenses modern veterinary medicines and services cost of animals health management for poor farmers to initiate them for adoption new technologies.

Conflict of Interests
The authors declare that they have no competing interest

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