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Short Communication

Retrospective Survey on Major Cattle Diseases in Guto Gida woreda, Eastern Wollega, Nekemte, Ethiopia

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Abstract	Article Information
Retrospective survey of five years was conducted from February 2009 to October 2014 to investigate the extent of major cattle disease and different treatment combination in Guto Gida woreda of eastern Wollega zone. Accordingly in all of the studied years the combination of the treatment is antibiotics only, anti helminthes only, acaricide only and one or more combinations. Cattle health problem is the fore front problem of livestock development extension programs in the study area. Infectious, parasitic and miscellaneous diseases are the leading causes of mortality, production losses, reduce growth rate, reduce reproduction ability of animals, down grade of cattle products and food borne diseases were principal problems necessitating appropriate control programs.	 ***Corresponding Author:** **Debela Abdeta** **E-mail:** debela.abdeta@gmail.com

INTRODUCTION

Animal production has been considered as the main component of agricultural development in most parts of sub-Saharan Africa. Like in many developing countries, domestic animals play a crucial role in Ethiopia; they constitute as source for traction power, income in provision of milk and meat (Mekonnen *et al*., 1989). Livestock with poultry in Ethiopia are believed to be the engine for the development of the nation's economy in general, and the small holder resource-poor farmers in particular. However, the livestock sector is facing many problems. Among the major livestock constraints that are bottle necks for the market oriented livestock development are animal feed shortage, presence of various economically important diseases, inappropriate policies, poor genetic performance, poor management, poor infrastructure like veterinary services, and inadequate institutions (Assegid, 2000). Disease is an abnormal state of the normal structure or function of an organ, or body system. The clinically abnormal state is exhibited as pain and/or symptoms associated with the altered function of the affected organ. Diseases have numerous influences on productivity and fertility of herds i.e. losses due to mortality and morbidity, loss of weight, slow down growth, poor fertility performance and decrease physical power (CACC, 2003). In the low lands, disease prevalence, the environment experiences high temperature, low rain fall, inadequate fed availability, and low vegetation coverage and the other major reason is the lack of satisfactory health services (Assegid, 2000). Disease can be broken down into infectious and non-infectious diseases. Infectious diseases are a result of pathogens like Viruses, Protozoa, Parasites, Bacteria, and Fungi. Pathogens are carried by vectors.

In tropical areas livestock health problems is high due to environmental factors like high temperature and humidity, topography structure of sloppy area exposed to flood so easy to infect soil borne diseases, stress factors and drought are common in these area as a result feed availability is limited and low vegetation coverage. The other major reason is the lack or weakness of animal health services (Assegid, 2000).

Even though these diseases are due consideration, experiences has shown that (Coppock, 1994) information on animal health was never a significant focus of research. However, knowing the type and extent of the common and /or major health problems is very important to owners, Veterinarians, and researchers and can assist in the development of herd health strategies and the selections of possible interventions (Radostits *et al*., 1994), to recommended that an organized research that can elucidate major animal health problems is a central issue for further study of epidemiological study on the diseases of livestock. This study was done to enquire base line information on major health problems of livestock in the study area.

MATERIALS AND METHODS

Study Area

The study was conducted from Feb to Oct 2014 in Guto Gida districts of eastern wollega zone. The area is characterized by crop-livestock mixed farming system. Teff, wheat, barley, maize, sorghum, peas, beans, chick-pea, lentils, linseeds, nug and rape seed are the major annual crops grown in the area. According to OBPED (2000) cattle, sheep, goats, horse, mules, donkey and poultry are the main livestock species raised in the zone.

Eastern Wollega Zone receives the maximum annual rainfall of approximately 2200mm and the minimum annual rainfall is expected to be 1500 mm. Therefore, the average rain fall for the Zone is 1850 mm. The average temperature for this Zone is found to be 14 to 26 ^{0}C.

Study Animals

The study population consists of all cattle treated during the past five years at the woreda selected veterinary clinic having different health problems.

Sample Size

For this preliminary survey the sample size cover all cattle treated during the included years at the woreda veterinary clinic.

Retrospective Study

Data were collected from veterinary clinic case registration book during the period from 2009 to 2014 to determine occurrence of major animal health problems encountered/examined during the past 5 years.

Consultation of the woreda veterinary professional to identify the major livestock health problems in their area and about the health service coverage of the woreda is also included.

Data Analysis

The data collected were entered in to MS-Excel 2000 computer program. The analysis and summarization of the data were made using descriptive statistics.

RESULTS

In all of the studied years the combination of the treatment is antibiotics only, anti helminthes only, acaricide only and one or more combinations of the said drugs and the result is indicated in table 1 below. In general, diseases can be classified into traumatic, metabolic and nutritional, Neoplastic or cancerous and infectious. Regarding the disease tentative diagnosis is quite different from clinic to clinic and the result is showed in table 2 below.

Table 1: Shows treatment combination with its frequency in Guto Gida veterinary clinic from 2009-2014

Treatment Combination	Year of treatment				
	2009/10	2010/11	2011/12	2012/13	2013/14
Acaricide			44		12
Antibiotics	30	40	74	72	96
Antihelmenthes	9	24	40	9	75
Antiprotozoal	9		12	18	42
Antibiotics, acaricide		18	6	9	63
Antibiotics, antihelments	189	86	58	144	65
Antibiotics, antiprotozoal		12	60	18	57
Antihelmenths, antiprotozoal	45	26	44	144	
Antihements, acaricde		38	30	18	
Antibiotics, antihelmenths, antiprotozoal		10	40	41	64
Antibiotics, antihelments, acaricide	84	186	98		98
Antibiotics, antiprotozoal, acaricide	66	76	68	85	2
No treatment		2	12		5
Total	**432**	**518**	**586**	**558**	**579**

Table 2: Shows major diseases treated during 2009-2014 at Guto gida veterinary clinic with frequency

Diseases treated	Duration of the case				
	2009/10	2010/11	2011/12	2012/13	2013/14
Anthrax	7	5	4	3	6
B.coli	56	67	70	45	87
Babesia	3	2	14	8	1
Black leg	12	6	16	27	3
Bloat	45	20	16	21	6
CBPP		20	12	11	4
Coccidiosis	30	42	60	3	28
Dictocoulus	6		2	10	6
Fasciolosis	156	172	110	70	102
Infection		6	22	57	20
Mastitis	6	22	26	27	30
Nematode	60		70	12	60
Paraphistomum	6		4	9	16
Parasitism	6	70	78	60	60
Pasteurellosis	6	2	6	9	6
Reproductive problem		10	8	3	30
Schistosoma	6	14	12	18	18
Toxocara	6	12	34	6	33
Trypanosoma	18	26	8	63	60
Wound	3	22	14	63	3
Total	**432**	**518**	**586**	**558**	**579**

DISCUSSION

The result of the present study disclosed the existence of major animal health problems of cattle with trypanosomosis, infectious diseases, mastitis, fasciolosis, endoparasite and exoparasite taking the lion role. Babesia is one of the tick borne diseases identified in the study area. Ticks and tick-borne diseases are generally thought of as cattle-related problems. However, they affect a wide range of Species, livestock production systems and geographical regions. Perry and Young (1995) state that tick-borne infections are a greater constraint to livestock development in Africa than in other geographical zones. This is supported by the fact that Africa has all the most important ticks and tick-borne diseases and is the only region affected by East Coast fever.

There exists a range of options for the control of Ticks and tick-borne diseases. The choice of which option to use is generally site specific and requires knowledge of the technology available, its cost and impact. For example, where an outbreak of a Ticks and tick-borne diseases occurs, the re-establishment of endemic stability will take time and losses may be quite severe (Minjauw and McLeod, 2000). Trypanosomosis is the prime disease in the study area possing many economic problems. Within the smallholder dairy sector in East Africa Trypanosomosis is generally associated with tsetse in Africa. However, it is also found in Asia and South America and can cause serious losses in a range of species and production systems. Additionally the disease is a zoonotic causing sleeping sickness and for one form of sleeping sickness (*T.b. gambiense*), animals are known to be reservoirs of the parasite (Angus, 1996). Even though, there is evidence that trypanosusceptible animals can establish a delicate balance with potential pathogens (Delia *et al*., 2009).

GI parasites like nematode, toxocara, coccidia, dictocaulos, and fasciola are affecting many health problems in the study area. They affect a wide range of species, geographical regions and production systems. Their impact is a mixture of reducing levels of animal production and increasing costs. Despite the widespread importance of GI parasites, it appears that they are principally a serious constraint to small ruminant production. The relative importance of nematodes, trematodes and coccidia varies from area to area, but all can cause serious losses. Even in the dry or mountainous areas, where small ruminants are numerous and the conditions for many parasites are not optimal, high levels of morbidity can occur (Connor *et al*., 1990; Kanyari, 1993).

Nematodes and fasciolosis are among the zoonotic disease identified. It has an impact of reducing the health of the population and their greatest impact tends to be in rural and/or poor urban populations (OIE, 2001). The poor often live in close contact with their livestock and are thus at increased risk for contracting zoonotic diseases. Close contact between humans and/or dogs and livestock may also allow the disease-causing organism to complete its life cycle more easily, resulting in higher levels of infection among the livestock of the poor. Tembley *et al*. (1992), who report the presence of hydatid cysts in the lungs of camels in Mali, consider this to be a serious concern for public health given the close relationship between camels, their owners and dogs. Singh *et al*. (1998) note the importance of goats in the livelihoods of many rural people in Asia and the threat to health posed by brucellosis among poor goat keepers who live in close contact with their goats. Contracting a zoonotic disease may have serious consequences for the poor, who will probably have limited access to healthcare and can ill afford to have his/her ability to livelihood impaired by sickness.

Control strategies may be difficult to implement among poor livestock keepers. In the case of hydatidosis, keeping dogs away from infected meat is the main control measure. In the case of cysticercosis, the proper disposal of human faeces is an important control measure. Again it is more difficult to achieve this in marginal areas. The other principal means of control is adequate inspection of meat after slaughter. Poor livestock keepers are less likely to have access to abattoirs with the facilities and trained personnel to carry out inspections properly(McManus, 2006).

Impact could be significant in some areas. Poor people are more likely to purchase unpasturised milk and eat meat from TB and cysticercosis infected carcasses. In the case of cysticercosis, 50 million people are reported to have taenia and 55,000 die each year because of this problem (WHO, 1996). Data from South Africa indicate that it is a much more important problem in poor populations.

CONCLUSIONS

Though livestock are the major source of livehood in the woredas, farmer cannot exploit full potential of the sector because of different constraints. Among this constraint live stock disease is the major ones. Disease likes infectious diseases, external and endo parasite and miscellaneous diseases are the major health problems of livestock developments for poor productivity of the sector. Diseases occur when the fine balance of life is altered. Although the environment cannot always be controlled, control of risk factors and rational vaccination programs will reduce the prevalence of diseases in the herd.

Conflict of Interest

None declared.

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