

Introduction

There are about 23.87 million cattle, 1.21 million buffaloes and 20.75 million goats in Bangladesh (DLS 2006-2007). These animals are important for good quality meat, milk, leathers and a source of income to farmers. Livestock is an integrated part of our farming system and plays an important role in the traditional economy of Bangladesh. According to Bangladesh Economic Review (March, 2014), the growth rate of GDP in 2012-2013 for livestock was the highest sub sector at 3.49% compared to 0.15% crops and 1.18% for agriculture and forestry sub sector. Despite being an important sector in Bangladesh agriculture, its contribution to the agricultural GDP is much less than those of crop agriculture and fisheries. The contribution of animal farming has remained largely stagnant with a share of around 13 percent of agricultural GDP over the last two decades. A disaggregated picture, however, shows satisfactory growth for poultry (over 4.5 percent), followed by goats/sheep (around 4 percent) in recent years. The growth of cattle/buffaloes, on the other hand, is highly unsatisfactory and registering a growth of less than 0.5 percent (BIDS). As this is the dynamic potential of this emerging sub sector, it requires policy attention to animal health and production. Among the various constrains in the development of cattle, disease are one of the most important limiting factors which not only degrade the productivity of cows but also causing mortality (Sarker *et al.*, 1999), especially in cross-bred calves. In addition, it is well established that exotic and cross-bred cattle are highly susceptible to diseases in comparison to local zebu cattle. Until the existence of diseases in a particular area is understood, it is difficult to plan systemic health program or formulate effective control strategies. Retrospective evaluation of clinical case records help to understand the predominant clinical problems and also their demographic and seasonal distribution in a particular area.

Parasites are organisms that are metabolically and physiologically dependent on other organisms, their hosts, for survival and development. Parasitic species of protozoa, helminths and arthropods, and occasionally stretched to include the rickettsia etc. They do not usually result in epidemics, characteristic of new infections in highly susceptible populations of animals, nor high levels of mortality, nor rapid changes in geographical distribution. Their effects on outputs of meat, milk, hides, skins, traction and manure is remarkable, and control costs, are generally dealt with at the producer rather than societal level. The distribution of parasitic diseases is throughout

the world, but it varies in effects in the developed and developing world. The most impact is probably found in the costs of control, particularly helminth parasitoses of the developed world.

Profitable milk production relies upon a careful, efficient and cost-effective management of dairy herds. Reproductive disorders affect dairy herd profitability by decreasing milk yield and by increasing the culling rate. Poor reproductive performance is an important production-limiting factor. It has been reported that reproductive disorders are responsible for remarkable economic losses to the dairy farmers in Bangladesh (Talukder *et al.*, 2005). The dairy industry's major goal is to provide milk for the consumer market. Over the past several decades, milk yield of goat has increased markedly. However, one negative impact of this improvement is reduced fertility e.g., goats open for longer, more services per conception and higher incidence of reproductive problems, which in turn, contribute to reduced fertility e.g. (Dhaliwal *et al.*, 1996). The major problems that have direct impact on reproductive performance of goats are abortion, dystocia, retained placenta (retention of fetal membrane), metritis, prolapse (uterine and/or vagina), anoestrus, endometritis and repeat breeder.

Amongst domestic farm animals the metabolic diseases achieve their greatest importance in dairy cows. The high producing dairy cows always verge on abnormality because the breeding and feeding of dairy cattle for high milk yield is etiologically related to the diseases of metabolism so common in these animals. In dairy cows, the incidence of metabolic diseases is highest in the period commencing at calving and extending until the peak of lactation is reached, and this susceptibility appears to be related to the extremely high turnover of fluids, salts and soluble organic materials during the early part of lactation (Erb and Corohn, 1988)

There exists a variety of problems in livestock sector of Bangladesh such as insufficient pasture land, lack of technical expert, insufficient supply of vaccine, lack of epidemiologic study and shortage of government employee in the field level and various diseases of different systems of animals. Among various problems, diseases play an important role interfering with the development of healthy livestock and livestock industry in our country. Infectious diseases cause a great harm in livestock. It has been estimated that about 10% animals die annually due to diseases. Disease also causes nutritional deficiency and disturbances in fertility. Understanding on the incidence, prevalence, distribution and determinants or risk factors of diseases in an area is necessary for undertaking efficient control program. Studying diseases of animals

retrospectively is a rapid and cheap means to identify the strategy of effective disease control when it is analyzed statistically.

Veterinary hospital is an ideal and reliable source of information about animal diseases and their solution. People from the neighboring areas bring their sick animals to the Veterinary hospital every day. Analysis of the case record gives a comprehensive idea about the disease problems at local areas. The present study was undertaken and designed with the objectives of identification & analysis of the trend of clinical diseases of goats and cattle available in Upazilla Veterinary Hospital, Gopalganj sadar, Gopalganj upazila which will help to take different steps as preventive measures to control the incidence of clinical diseases of goats and cattle.

Review of Literature

Fever: Fever was diagnosed on the basis of recorded rectal temperature (Blood and Radostits, 1989).

Anorexia: Anorexia syndrome were diagnosed on the basis owner's complaint with the history of partial and complete absence of appetite with varying decreased food intake and following the procedure of Prasad et al., 1976.

Tympany: Ruminal tympany refers to over-distension of the rumen and reticulum with gases of fermentation, either mixed with or separated from the fluid and solid ingesta. It occurs secondarily to a number of conditions in which the eructation of the gases is impeded but its major importance is as a primary disease in cattle under certain dietary regimens. The incidence of the disease has increased markedly with the improvement of pastures by heavy applications of fertilizers and the use of high-producing leguminous pasture plants.

Digestive disorders (diarrhoea): Faecal samples of the diarrheic selected animals were examined in the laboratory and those samples found negative on parasitological examination were diagnosed as diarrhoea and also by taking history whether of regular anthelmintic treatment of this animals were practiced or not.

Respiratory disorders (pneumonia): This disorder was diagnosed on the basis of owner's complaint and recording abnormal function respiratory system like polypnoea, dyspnoea, coughing, sneezing, nasal discharging, thoracoabdominal breathing etc and by examining the entire respiratory tract as described by Blood and Radostits, 1989.

Skin diseases: Different type discrete and diffuse skin lesions were diagnosed clinically by visual examination.

Corneal opacity: Corneal opacity was diagnosed on examination. The presence of non-transparence, cloudiness and opaque condition on the cornea was diagnosed as corneal opacity.

Viral diseases: Foot and Mouth Disease (FMD) was diagnosed in calves and adult cattle on the basis clinico-epidemiological determinants. The presence of fever and vesicular eruption in the mouth and on the feet of same animal with the history of rapid spread of the disease in bovine

population were regarded as Foot and Mouth Diseases. PPR was diagnosed in both kids and goat on the basis of clinico-epidemiological determinants (Samad, 2008). Papillomatosis was diagnosed in calves and visual examination and palpation of solid outgrowth of epidermis.

Dysentery: Clinical Presumptive diagnosis of dysentery can be on history of growing animals and clinical signs including dysentery, tenesmus, mild systemic involvement and dehydration. Confirmatory diagnosis can be made by demonstrating the oocysts in faecal sample of clinically affected animals.

Reproductive disorders: Urolithiasis was diagnosed mainly in castrated goats with the history and owners complain of complete retention of urine, and clinical findings of distension of urinary bladder, restlessness, occasionally rupture of urinary bladder and aspiration of fluid from the abdominal cavity rupture of the bladder. Repeat breeders was diagnosed on the basis of reproductive history of the cow, checking of individual breeding records and giving a special view to the characteristic of repeat breeder's cow (Samad, 2008). Anestrus was diagnoses on the basis of history of not coming into heat within the normal cycle length. Uterovaginal prolapse was diagnosed when uterus was descended into the vagina and visible of the vaginal orifice. Clinical mastitis was diagnosed on the basis of owner's complaint about abnormalities of udder and milk production. Palpation of udder revealed enlarged and painful with the presence of clots/flakes in the milk confirmed the diagnosis of mastitis.

Parsitological diseases: Humpsore (Stephanofilariasis), fascioliasis and paramphistomiasis were diagnosed on the basis of history and clinical findings and faeces examination (Blood and Radostits, 2000).

Metabolic disorders: Higher milk yield in dary cattle has made it increasingly difficult to balance accurately the feed ration. The result is energy and mineral deficiencies as well as various homeostasis disorders, including calcium and magnesium balance disorders. These disorders in turn lead to metabolic disorders, such as pre-parturient, parturient and post-parturient paresis caused by prolonged calcium deficiencies, spring grass tetany, winter tetany and whole milk tetany of calves caused by reduced magnesium level (Sobiech et al., 2010).

Feed Poisoning in Horses: When there is decreased amount of pasture, as typically occurs in the spring, most horse owners probably feed more hay, grain and processed feeds to their horses.

This type of food may increase the chance of feed poisoning. Feed-associated poisonings can occur in horses and although fairly rare, when poisonings do occur they are usually serious. Typically, multiple animals are affected and severe disease and death can result. One type of feed poisoning to horses is exposure to feed additives used for cattle and poultry. Monensin is commonly used in cattle rations to promote growth but horses are susceptible to this chemical and small amounts can be deadly. To prevent feed poisoning, it is important to use a feed dealer that you trust and that continually produces a good product. Feeding the least expensive feed that is formulated by a lesser known company may not be worth the risk (Dr. Bob Judd, 2011).

Materials and Methods

The retrospective epidemiologic study of diseases in ruminants was done using of two years data in Gopalganj sadar Upazila Veterinary Hospital of Gopalganj district. The retrospective data of two years from January 2012 to December 2013 were collected from patient register maintained by veterinary surgeon and All diseased cattle and goat were brought for treatment to the Veterinary Hospital, Gopalganj sadar, Gopalganj. The data were analyzed retrospectively and interpreted to determine the prevalence of diseases; seasonal pattern and distribution of diseases. The information of the animals was collected from the register. Different examination of the animal was performed like a) General examination (for Physical condition, behavior, posture, gait, superficial skin wound, prolapse of the uterus and vagina, salivation, nasal discharge, distension of the abdomen, locomotive disturbance etc) by visual examination of the patient, b) Physical examination (for examination of different parts and system of the body of each of the sick animals) by palpation, percussion, auscultation, needle puncture and walking of the animals and c) Clinical examination (for rectal temperature, pulse, and respiratory rate) on the basis of diseases history, owner complaint, symptoms, to diagnose the following diseases and disorders. Data were organized in the Microsoft® Excel spreadsheet and percentages of disease conditions prevalent in different groups and seasons were calculated. The proportional prevalence of diseases and disorders were calculated in percentage of the total records. The year was divided into three seasons namely summer (March to June), rainy (July to October) and winter (November to February) according to the climatic condition of Bangladesh. The unions were divided into four groups like east, north, west and south considering the Upazilla Veterinary Hospital in center. Data were collected from clinical case investigation record to Microsoft Excel 2007® spreadsheet stored separately and percentages of clinical diseases and disorders were calculated. The collected data exported to analytical software STATA 13.



Fig: Unions of Gopalganj Sadar Upazila, Gopalganj.

Result and Discussion

In total 10 diseases and disorders (Table 1) were recorded in 1989 (one thousand nine hundred eighty nine) cattle (561) and goats (1428), were brought to the veterinary hospital, for treatment purpose during the study period. Among ten disorders, 21.36% general systemic disorders, 19.19% parasitic disease, 11.73 % digestive disorders, 11.2 % vitamin and mineral deficiency, 10.36% fattening, 7.35 % infectious disease, 5.60% reproductive disorders, 5.53 % respiratory disorders, 4.27 % food poisoning and 3.29% mastitis cases in goat and 18.72 % parasitic disease, 18.36% general systemic disorders, 12.12% vitamin and mineral deficiency, 11.94% digestive disorders, 11.76% fattening, 6.24% mastitis, 6.06% infectious disease, 5.53% respiratory disease, 4.81% reproductive disorders and 4.46% food poisoning cases in cattle. The digestive disorders were similar with result (11.5%) of Kabir *et al.*, (2010) but it was lower than Rahman *et al.*, (2012) who found 14.2% and (goats 16.85% and cattle 20.83%) Parvez *et al.*, (2014). Respiratory disorder was closely similar with the findings (4.16%) Parvez *et al.*, (2014) and Kabir *et al.*, (2010) in cattle but in case of goat it was lower than the result (9.57%) of Parvez *et al.*, (2014) but it was higher than the result (0.202%) of Rahman *et al.*, (2012). Parasitic disease was lower than the result (50%) of Rahman *et al.*, (2012) but lower than the result (goat 15.22% and cattle 12.82%) of Parvez *et al.*, (2014), General systemic state is not consistent with the findings (goats 7.91 and cattle 6.73%) of Parvez *et al.*, (2014). Prevalence of infectious disease in goats and cattle was lower than the findings of Parvez *et al.*, (2014) who observed prevalence 11.95% in goats and 12.18% in cattle. The prevalence of reproductive disorders and vitamin and mineral deficiency was higher than the findings of Kabir *et al.*, (2010) and Rahman *et al.*, (2012) who observed the 1.44% and 4.7% reproductive disorders, 4.24% and Vitamin and mineral deficiency and 1.76 % and 1.6% fattening in goats and cattle respectively. The general systemic states and parasitic diseases comprises the highest prevalence where mastitis and food comprises the lowest prevalence in comparison to others diseases and disorders of goats and cattle during the study period. The disease and disorders variation may be due to geographical location, the owner are not aware about regular deworming practice and manage mental variation (Table 1).

Table no 1: Prevalence of clinical diseases and manifestations in goats and cattle recorded at Upazilla Veterinary Hospital in Gopalganj sadar from 2012 to 2013

Parameters	Goat	Cattle	Total
General Systemic state	305 (21.36)	103 (18.36)	408 (20.51)
Digestive disorders	169 (11.73)	67 (11.94)	236 (11.81)
Respiratory Infection	79 (5.53)	31 (5.53)	110 (5.53)
Reproductive disorders	80 (5.60)	27 (4.81)	107 (5.38)
Parasitic disease	274 (19.19)	105 (18.72)	379 (19.05)
Infectious disease	105 (7.35)	34 (6.06)	139 (6.99)
Mastitis	47 (3.29)	35 (6.24)	82 (4.12)
Food poisoning	61 (4.27)	25 (4.46)	86 (4.32)
Fattening	148 (10.36)	66 (11.76)	214 (10.76)
Vitamin & Mineral deficiency	160 (11.2)	68 (12.12)	228 (11.46)
Total	1428	561	1989

General systemic states: Anorexia, fever and leg pain in goats and cattle were diagnosed under the general systemic states (Table 1 and 2). There was no significant ($p > 0.05$) relationship general systemic states and seasons. Prevalence of fever was higher in winter season in both goats (39.47%) and cattle (51.92%) but Hoque and Samad (1996) and Samad et al. (2002) found higher prevalence of fever in summer and rainy season. The variation may be due to managerial practice and climatic condition may influence the outcome. The anorexia and leg pain was recorded throughout the year but it was higher in winter (45.45% and 43.66%) in goat but in case of cattle anorexia was higher in summer (40%) and rainy (40 %) season, leg pain was higher in winter season.

Digestive disorders: Digestive disorders (11.81%) were found among the different categories of diseases in goats and cattle. Under this category, tympany was found to be the highest both in goats and cattle, followed by diarrhea, and dysentery (Table 1 and 2). The tympany was higher in summer season for both goats (35.06%) and cattle (38.71 %) followed by rainy. In winter highest prevalence of diarrhea was found in goats (43.37%) and cattle (37.05%) followed by rainy in goats (30.12%) and cattle (31.25%). Samad (2001) reported 25.97% and 9.91% in cattle and goats that is lower than the present findings. Rahman et al., (2012) also reported highest

prevalence of diarrhea in winter (16.8%). There was no significant ($p > 0.05$) relationship digestive disorders and seasons.

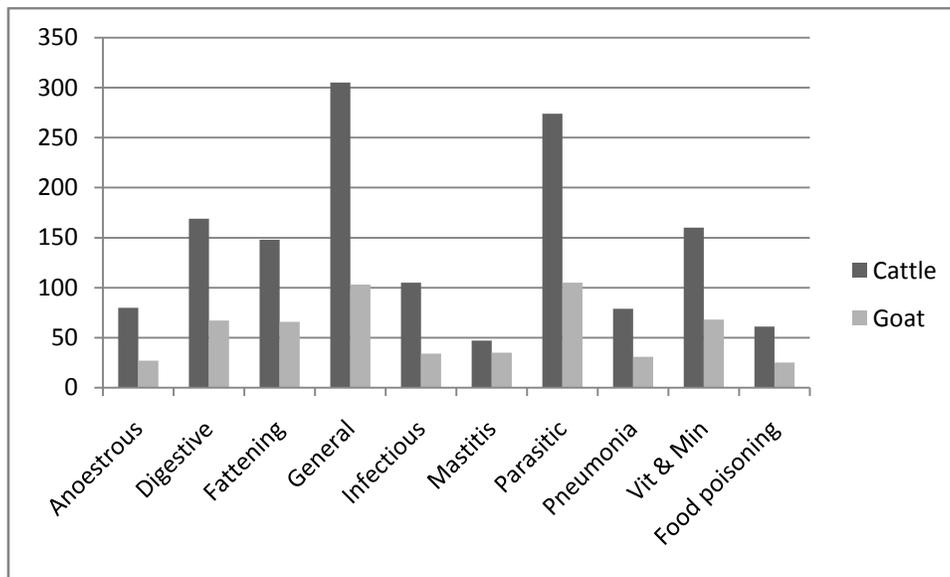


Fig: Proportionate prevalence of clinical diseases and manifestations in goats and cattle recorded at Upazilla Veterinary Hospital in Gopalganj sadar from 2012 to 2013.

Infectious diseases: Overall 7.35% goats and 6.06% cattle were affected with major infectious diseases (Table 1) which support the earlier reports of Debnath *et al.* (1990) and Samad *et al.* (2002) who reported 5.86% and 4.73% specific infectious diseases. There was significant ($p < 0.05$) relationship between infectious diseases and viral diseases with seasons in both goats and cattle. Bacterial and viral diseases in goats and cattle are the major infectious diseases. In goats, highest prevalence of bacterial diseases was found in winter (40.63%) season followed by summer (31.25%) and viral diseases was highest in summer (46.34%) followed by rainy season (Table 2). The findings are agreed by Rahman *et al.*, (2012) who also found the highest prevalence of viral disease in goats during summer (8.9%) season. In cattle, highest prevalence of bacterial disease was found during winter season. Rahman *et al.*, (2012) also reported highest prevalence of bacterial disease (haemorrhagic septicemia) in winter (1.5%) in cattle.

Parasitic disease: Parasitic disease (19.05%) (Table 1) was found among different major disease of goats and cattle that is comprises of ectoparasites and endoparasites. There was no significant

($p > 0.05$) relationship between parasitic diseases and seasons. In goats both ectoparasites and endoparasitic diseases were higher in winter (41.13% and 44.67%) but in case of goats ectoparasitic diseases were highest in summer (37.50%) and endoparasitic diseases in winter (36.84%) season (Table 2) that was agreed by Rahman *et al.*, (2012) (53.7%) who also found highest prevalence in summer season in both goats (23.4%) and cattle (53.7%).

Vitamin and mineral deficiency disorders: Different vitamin and mineral deficiency disorders comprises the vitamin and mineral deficiency disorders that cause major (11.46%) (Table 1) problem in goats and cattle. Vitamin and mineral deficiency disorders were higher in winter season in both goats (36.26% and 44.93%) and cattle (43.59% and 41.38%) (Table 2). There was no significant relation between vitamin and mineral deficiency disorders and seasons. The variation in different season may be due to different feeding practice and management practice.

Mastitis: Mastitis was highest prevalent in winter in both goats (39.13%) and cattle (42.86%) (Table 2) that contradict with the findings of Samad (2001) who reported higher cases of clinical mastitis during summer (38.67%) and rainy (38.67%) seasons than winter (22.66%). The variation may be due to geographical difference.

Respiratory disorders: Among different respiratory disorders pneumonia has considered that was higher in winter season in goats (39.24%) and cattle (41.94%) (Table 2). This findings agreed by Samad *et al.* (2002) who reported the highest percentage of pneumonia in cattle during winter (47.06%) in comparison to rainy and summer seasons but this observation contradicts with Rahman *et al.*, (2012) who found the highest percentage of pneumonia was recorded during summer (6.3%), followed by winter and rainy seasons both in cattle and goats.

Reproductive disorders: Anoestrous was higher in winter season for goats (36.25%) and cattle (51.85%) (Table 2) that is supported by Parvez *et al.*, (2014) and Rahman *et al.*, (2012) who found highest number of cases in cattle was recorded during winter (80.0%), followed by rainy (75.0%) and summer (42.1%) seasons but Parvez *et al.*, (2014) reported higher prevalence in rainy (1.58%) season for goats..

Table 2. Season-wise distribution of clinical cases of goats and cattle recorded at the Upazilla Veterinary Hospitals during two years' period from 2012 to 2013.

Parameters		No. of Goat N = 1,428			P-value	No. of Cattle N = 561			P - value
		N (%)				N (%)			
		Summer	Rainy	Winter		Summer	Rainy	Winter	
Digestive disorders	Diarrhoea	22(26.51)	25(30.12)	36(43.37)	0.485	10 (31.25)	10 (31.25)	12 (37.50)	0.641
	Dyscentry	5(50.00)	1 (12.50)	3 (37.50)		00	2 (50)	2 (50)	
	Tympany	27 (35.06)	23 (29.87)	27 (35.07)		12 (38.71)	9 (29.03)	10 (32.26)	
General systemic states	Anorexia	4 (36.36)	2 (18.18)	5 (45.45)	0.896	2 (40)	2 (40)	1(20)	0.364
	Fever	51 (33.55)	41 (26.970)	60 (39.47)		9(17.31)	16 (30.77)	27 (51.92)	
	Leg pain	42 (29.58)	38 (26.76)	62 (43.66)		14 (30.43)	15 (32.61)	17 (36.96)	
Infectious	Bacterial	20 (31.25)	18 (28.13)	26 (40.63)	0.018	4 (23.53)	6 (35.29)	7 (41.18)	0.048
	Viral	19 (46.34)	16 (39.02)	6 (14.63)		11 (64.71)	2 (11.76)	4 (23.53)	
Parasitic	Ectoparasite	40 (32.26)	33 (26.61)	51 (41.13)	0.784	13 (27.08)	18 (37.50)	17 (35.42)	0.795
	Endoparasite	43 (28.67)	40 (26.67)	67 (44.67)		18 (31.58)	18 (31.58)	21 (36.84)	

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Vitamin-Mineral deficiency	Mineral deficiency	33 (36.26)	25 (27.47)	33 (36.26)	0.451	10 (25.64)	12 (30.77)	17 (43.59)	0.949
	Vitamin deficiency	24 (34.78)	14 (20.29)	31 (44.93)		7 (24.14)	10 (34.48)	12 (41.38)	
Food poisoning		17(27.87)	19(31.15)	25(40.98)		5(19.23)	7(26.92)	13(53.85)	
Mastitis		14 (30.43)	14 (30.43)	18 (39.13)		8 (22.86)	12 (34.29)	15 (42.86)	
Pneumonia		25 (31.65)	23 (29.11)	31 (39.24)		9 (29.03)	9 (29.03)	13 (41.94)	
Fattening		45 (30.41)	45 (30.41)	58 (39.19)		18 (27.27)	18 (27.27)	30 (45.45)	
Anoestrous		28 (35.00)	23 (28.75)	29 (36.25)		5 (18.52)	8 (29.63)	14 (51.85)	

Fattening: Fattening was higher in winter season in goats (39.19%) and cattle (45.45%) (Table 2) but it was contradicted with the findings of Parvez *et al.*, (2014) who reported higher in summer for goats (0.61%) and cattle (0.96%). The variation may be due to purpose of fattening of animals.

Food poisoning: In goats (40.98%) and cattle (53.85%) (Table 2) food poisoning was higher during winter season. Highest prevalence in winter may be due to feeding practice of owner on the purpose of fattening of animals because the animal owner are not aware about food poisoning of animals

In goats diarrhea (36.14%), dysentery (37.50%), anorexia (36.36%), fever (36.18%), viral diseases (36.59%), ectoparasitic diseases (37.10%), mineral deficiency disorders (43.96%), vitamin deficiency disorders (42.03%) food poisoning (36.07%), mastitis (47.83%) and anoestrous (41.25%) was higher in west side unions ; Tympany (33.77%), endoparasitic diseases (24.67%) and leg pain (33.80%) was higher in south side unions and bacterial disease (46.88%), and pneumonia (35.44%) was higher in north side unions (Table 3).

In cattle anorexia (40%), fever (46.15%), viral disease (29.41%), endoparasitic disease (36.84%), mastitis (34.29%), pneumonia (35.48%) and anoestrous (29.63%) in west sided unions; leg pain (32.61%), bacterial diseases (41.18%), ectoparasitic diseases (35.42%), vitamin deficiency disorders (30.77%), mineral deficiency disorders (44.83%), feed poisoning (34.62%) and fattening (33.78%) in north sided unions and diarrhea (37.50%) was higher in south sided unions of Upazilla veterinary hospital (Table 3). The variation in occurrence of diseases may be due to difference in geographical condition and husbandry practices.

Table 3: Union wise clinical diseases and manifestations of goats and cattle at UVH in Gopalganj sadar from 2012 to 2013

Parameter		No. of Cattle No. of Goat N = 1,428				P - value	No. of Cattle N = 1,989				P - value
		N (%)					N (%)				
		East	North	South	West		East	North	South	West	
Digestive	Diarrhoea	5 (6.02)	30(36. 14)	18(21. 69)	30(36 .14)	0.259	6 (18.7 5)	5 (15.63)	12 (37.50)	9 (28.13)	0.983
	Dyscentry	2 (25.0 0)	3 (37.50)	0 (0.00)	3 (37.5 0)		1 (25)	1 (25)	1 (25)	1 (25)	
	Tympany	5 (6.49)	22(28. 57)	26(33. 77)	24(31 .17)		7 (22.5 8)	7 (22.58)	9 (29.03)	8 (25.81)	
General	Anorexia	1 (9.09)	2 (18.18)	4 (36.36)	4 (36.3 6)	0.502	00	2 (40)	1 (20)	2 (40)	0.439

	Fever	14 (9.21)	42(27. 63)	41(26. 97)	55(36 .18)		3 (5.77)	16(30. 77)	9 (17.31)	24 (46.15)	
	Leg pain	18(1 2.68)	40(28. 17)	48(33. 80)	36(25 .35)		5 (10.8 7)	15 (32.61)	14(30. 43)	12 (26.09)	
Infectious	Bacterial	5 (7.81)	30(46. 88)	10(15. 63)	19(29 .69)	0.217	1 (5.88)	7 (41.18)	3 (17.65)	6 (35.29)	0.492
	Viral	5 (12.2 0)	11(26. 83)	10(24. 39)	15(36 .59)		3 (17.6 5)	4 (23.53)	5 (29.41)	5 (29.41)	
Parasitic	Ectoparasite	13(1 0.48)	38(30. 65)	27(21. 77)	46(37 .10)	0.613	3 (6.25)	17(35. 42)	12(25. 00)	16(33. 33)	0.525
	Endoparasite	21(1 4.00)	37(24. 67)	37(24. 67)	55(36 .67)		8 (14.0 4)	17(29. 82)	11(19. 30)	21(36. 84)	
Vitamin- Mineral deficiency	Mineral deficiency	6 (6.59)	28(30. 77)	17(18. 68)	40(43 .96)	0.099	8 (20.5 1)	12(30. 77)	9 (23.08)	10(25. 64)	0.153
	Vitamin deficiency	10(1 4.49)	12(17. 39)	18(26. 09)	29(42 .03)		1 (3.45)	13(44. 83)	5 (17.24)	10(34. 48)	
Food poisoning		6 (9.84)	22(36. 07)	11(18. 03)	22(36 .07)		5 (19.2 3)	9 (34.62)	6 (23.08 0)	6 (23.08)	
Mastitis		8 (17.3 9)	9 (19.57)	7 (15.22)	22(47 .83)		5 (14.2 9)	11(31. 43)	7(20.0 0)	12(34. 29)	
Pneumonia		11(1 3.92)	28(35. 44)	19(24. 05)	21(26 .58)		1 (3.23)	8 (25.81)	11(35. 48)	11(35. 48)	
Fattening		14(2 1.21)	27(40. 91)	9(13.6 4)	16(24 .24)		21(14 .19)	50(33. 78)	34(22. 97)	43(29. 05)	
Anoestrous		8 (10.0 0)	22(27. 50)	17(21. 25)	33(41 .25)		5 (18.5 2)	7 (25.93)	7 (25.93)	8 (29.63)	

Limitation

There were some limitations of the study.

1. There might be under reporting in the estimated prevalence because all cases of the area were not brought to the UVH during the study period.
2. Data regarding managerial & environmental factors could not be collected due to study was done on the basis of previously recorded data.

Conclusion

The study showed that general systemic states, digestive disorders and parasitic diseases of goats and cattle predominantly present. Proper feeding, management and with regular anthelmintic therapy is therefore necessary to gain maximum output from rural livestock's. The knowledge derived from this study will increase our understanding the clinical case of goats and cattle in a particular area and taking necessary preventive measure to disease at national policy level. Therefore further studies would be required for the identification and characterization of etiological agents.

References

- Sarker, M. A. S., Hashim, M. A., Rahman, M. B. and Begum, H. 1999. Studies on prevalence of diseases of animals (medicinal and surgical) in a Thana of Bangladesh. *Progressive Agriculture*. 10:165-167.
- Bangladesh Economic Update, March, 2014. Recent Trends of Growth in Agriculture, Industry and Power. Volume 5, No. 3.
- Barriers to the Development of Livestock Sector in Bangladesh, April, 2014. Number 1408.
- Dhaliwal, G.S., Murray, R. D. and Dobson, H., 1996. Effects of milk yield, and calving to first service interval, in determining herd fertility in dairy cows. *Animal Reproduction Science*. 41 (2): 109–117.
- Talukder, M. A. S., Khandoker, M. A. M. Y., Rahman, M. G. M., Islam, M. R. and Khan, M. A. A. 2005. Reproductive problems of cow at Bangladesh Agricultural University Dairy Farm and possible remedies. *Pakistan Journal of Biological Sciences*. 8: 1561-1567.
- Erb, H. N. and Corohn, Y. T. 1988. Epidemiology of metabolic disorder in the parturient dairy cows. *Journal of Dairy Science*. 9 (7): 2557.
- Kabirul, M. H., Reza, M. A., Razi, K. M. A., Parvezi, M. M., Bag, M. A. S. and Mahfuz, S. U. 2010. A Report on Clinical Prevalence of Diseases and Disorders in Cattle and Goat at the Upazilla Veterinary Hospital, Ulipur, Kurigram. *International Journal BioResearch*. 2(11): 17-23.
- Rahman, M. A., Islam, M. A., Talukder, A. K., Parvin, M. S. and Islam, M. T. 2012. Clinical Diseases of Ruminants Recorded at the Patuakhali Science and Technology University Veterinary Clinic. *Bangladesh Journal Veterinary Medicine*. 10(1&2): 63-73.
- Parvez, M. A., Faruque, M. R., Sutradhar, B. C., Rahman, M. M., Mannan, A. and Khatun, R. 2014. Clinical Diseases and Manifestations of Goats and Cattle Recorded at Teaching

- Veterinary Hospital in Chittagong Veterinary and Animal Sciences University. *Bangladesh Journal Veterinary Medicine*. 12 (1): 73-81.
- Samad, M. A., Islam, M. A. and Hossain, A. 2002. Patterns of occurrence of calf diseases in the district of Mymensingh in Bangladesh. *Bangladesh Veterinary Journal*. 36: 01-05.
- Hoque, M. S. and Samad, M. A. 1996. Prevalence of clinical diseases in dairy cross-bred cows and calves in the urban areas in Dhaka. *Bangladesh Veterinary Journal*. 30: 118-129.
- Samad, M. A. 2001. Observations of clinical diseases in ruminants at the Bangladesh Agricultural University Veterinary Clinic. *Bangladesh Veterinary Journal*. 35: 93-120.
- Sobiech, P., Rypula, K., Wojewoda-Kotwica, B. and Michalski, S. 2010. Usefulness of Calcium-Magnesium Products in Parturient Paresis in The Cows. *Journal of Elementology*. 15(4), 693-704.
- Dr. Bob Judd. 2011. Feed Poisoning in Horses. *Texas Vet News*.
- Blood, D. C. and Radostits, O. M. 1989. *Veterinary Medicine*. 7th edn. Balliere and Tindal, London.
- Prasad, J., Rekib, I. M. and Jodhi, S. V. 1976. Clinical trails with Anorexon in anorexia syndrome in ruminants.
- Samad, M. A. 2008. *Animal Husbandry and Veterinary Science*. 1st pub, LEP pub No. 11. BAU Campus, Mymensingh.
- Blood, D. C. and Radostits, O. M. 2000. *Veterinary Medicine*. 9th edn., W.B Saunders CO. Ltd., London.