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PRESENT SCENARIO OF USING FEED ADDITIVES AND FEED SUPPLEMENT DURING CATTLE FATTENING IN DHAKA DISTRICT OF BANGLADESH

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ABSTRACT

This study was conducted to find out the relationship among different aspects of cattle fattening and use of anabolic steroids and feed additives. The data were collected through an interview schedule from 65 respondents of 4 upazila/ thana of Dhaka city who were involved in cattle fattening. Parameters were studied in relation to socio- economic conditions of farmers and use of anabolic steroids and feed additives and their effects on animals and environment. In this study 80.0% farmers' were involved in others occupation, followed by 17.0% in livestock business. About 65.0% respondents had higher education, 20.0% had higher secondary education, 12.0% obtained secondary education and the rest of them were primary education. Irrespective of literacy only 6.0% of the farmer had training. Results showed that about 58% respondents used anabolic steroids for the duration of 3 to 6 months long cattle fattening ($P<0.001$) program. The chi-square (11.093) value of annual income indicates that with increase of annual income and use of anabolic steroids have decreased. The significant ($P<0.01$) association was observed in case of anabolic steroids and source of money, annual income, number of cattle fattening, breeds, fattening period, starting and finishing age. About 78% respondents used feed additives for cattle fattening from own resources ($P<0.001$) and most of cattle fattened for 3 to 6 months ($P<0.01$). The result demonstrated that respondents of low annual income used more anabolic steroid and feed additives as a growth promoter for cattle fattening and they prefer in powder form.

Keywords: Socio-economic, Beef Fattening, Feed Additives, And Anabolic Steroid.

1. INTRODUCTION

Livestock and meat products have been among the best ever increasing components of the global agriculture and food industry. Cattle of Bangladesh are an inalienable and integral part of the agricultural farming and agribusiness system. The livestock section has been contributing a considerable branch to the economy of Bangladesh. About 24.86 million cattle heads are circulated all over the country which position 12th in the world and 3rd in Asian countries (DLS, 2018). The subdivision also acting a important function in the national economy which

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contributes about 45.0% of the agricultural GDP, 13.62% of the total GDP and has generated an estimated 31% of the total agricultural employment. Even if cattle population per unit land area is high, their output is too low due to insufficient feed supply, poor genetic makeup, insufficient provision of veterinary care, lack of scientific awareness in housing and management. Although the growth of livestock production is the highest among all other sub-sectors of agriculture in Bangladesh (Bangladesh Economic Reviews, 2017), the production and consumption of livestock products is still much lower in comparison with other countries. Among meat utilization pattern of meat of 180 countries in the world that was tabulated by FAO, Bangladesh is in the 18 position in meat consumption the amount of which is about only 44.57 kg/capita/year (DLS, 2018) compared to the USA of 124 kg and the global average of 38 kg (Smith et al., 2007). Besides, being a Muslim country, there is a seasonal demand of beef cattle during Eid-ul-Azha. To assure the animal protein necessity, cattle fattening can play a significant role. The Directorate of Livestock Services (DLS) of the Government of Bangladesh has taken beef fattening as an action program to generate income for the rural poor farmer. Cattle are bought by the farmers usually 3-6 months before Eid-ul-Azha (Muslim festival). One of the advantages of the cattle fattening by the rural farmers is that they use locally available cattle feed resource during the Eid festival. The shortage and high cost of animal feed is the greatest problem of the farmers for rearing cattle. During 1999-2000, large scale cattle fattening farms were started through finance by Sonali Bank, Janata Bank, Agrani Bank and Bangladesh Krishi Bank. Hossain et al. (2004); conducted another experiment to know the effect of Urea Molasses Straw (UMS) feeding on feed intake and growth of the young bull at farmer‟s level. According to Skunmun et al. (2002); the increasing trends of beef demand have already been evident in several Southeast Asian countries such as Indonesia, Malaysia, Philippines and Thailand. Though the cattle production per area is high but their productivity is low due to genetic potentiality and lack of scientific knowledge in management strategies (Rahman et al., 2009). Growth stimulating substances e.g., hormones, steroids, feed additives etc., are lawfully or unlawfully using in Bangladesh for cattle fattening. Some researches in BAU and BLRI have conducted experiments on growth, feeding trial and socio- economic aspects of cattle fattening. Francois and Michel (1968), reported that the antimicrobial agents that are used as feed additives build up their movement in the digestive ability to increase retention of dietary nitrogen through protein synthesis. Steroids hormones may act in different ways; firstly, via specific cell receptors; secondly, by enhancing endogenous somatotrope hormones and finally, by modulation of other endocrine system like gonadal, thyroid and surrenal axis.Antibiotics, steroids, appetizers, vitamin-mineral premix, mineral premix, enzymes etc are the types of feed additives and growth promoters used by different farmers. The consumers have become very concern about food safety, and their fear relating to the use of antibiotic /hormone /drugs in animal feeding has been widely expressed worldwide. Since, 2001, EU before now forbidden the use of growth promoter in cattle production. If the cattle are too weak then they might be given limited dose of vitamin B-12 injections, they said. But high dose steroids injections are often push to cattle body to make them look fat and healthy as unfair traders are out to earn extra income.

At present, the government encourages the promising of commercial fattening practices and support establishments of the segment in an investment form in the study area. Hence, it is very significant to look into the overall activities and performance in the segment to drawing suitable

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technologies for upgrading of beef production. Observance all these matters in vision, the present study was conducted with the following objectives:

i) To look into the utilize of anabolic steroids and feed additives for cattle fattening in Dhaka city of Bangladesh;
ii) To discover the association among different aspects (human health effect, environmental effect, legalism etc) of cattle fattening and use of anabolic steroids and feed additives;
iii) To make an record of the use of hormones and feed additives in cattle fattening areas;
iv) To monitor public awareness on overall fattening concept.

2.MATERIALS AND METHODS

2.1 Methods of data collection

The data were collected on the basis of purposive discusion involving 65 respondents of Mohammadpur (Beribadh), Keraniganj, Jatrabari and Mirpur area of Dhaka District in Bangladesh. These farmers were involved in beef cattle fattening program.

2.2 Study area

The proposed research was carried out for 90 days during 3rd, May, 2018 to 1st, August, 2018, in Dhaka City, Bangladesh.

Table 1. Name of the district, upazila and number of the respondents who were involved in experimental area

	Upazila/ Thana	No. of Farmers
Dhaka	Mohammadpur	30
	Keraniganj	9
	Jatrabari	16
	Mirpur	10

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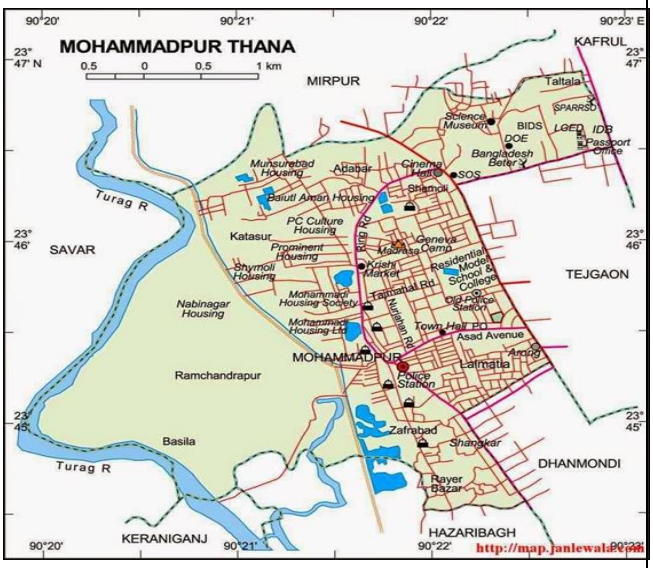
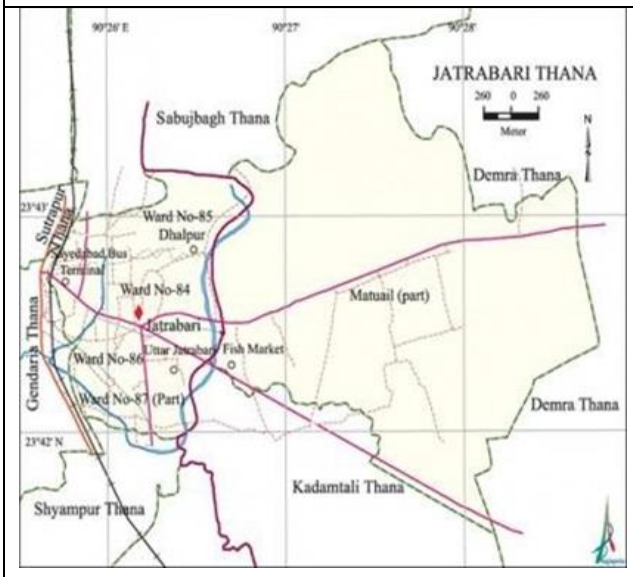


Map of the study area in Mohammadpur Thana.

Map of the study area in Keraniganj Upazila.



Map of the study area in Jatrabari Thana.

Map of the study area in Mirpur Thana.

Figure 1: Map of the respected Thana

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2.3 Experimental animal

Male sexed cattle were the experimental animal.

2.4 Selection of farmers

The respondents were chosen who rear cattle or bought cattle for fattening. Respondents those who are used anabolic steroid and feed additives for cattle fattening purpose were haphazardly selected for collecting data to deal with the goals.

2.5 Preparation of the interview schedule

The interview schedule was prepared based on the purposes of the study. It contains both open and closed form questions. The planned interview scheduled was planned to collect information from the respondents on the uses of anabolic steroid and feed additives. A draft agenda was developed before preparing the final schedule. The schedule was developed in a simple way to keep away from misconception and to get accurate result. In the long run it was finalized in relation to the incident gathered in the prelude field analysis.

2.6 Collection of data

Data were collected through the direct interviews and making frequent individual visits. Before initial the actual interview, the aims of the study were explained clearly to the farmers. Then the questions were asked in a very simple approach with details wherever require. Interviews were usually conducted in the farm or in respondent house during free time. While starting interview with any respondent, the researcher took all possible care to establish rapport with them. When even, any respondents felt complexity in appreciative any question, the researcher took almost care to make clear and elucidate them appropriately. Admirable assistance and co-ordination was obtained from all respondents, field extension staffs of DLS and different companies‟ personnel during data collection. Data collection was carried out for 90 days during 3rd, 2018 to 1st August, 2018. Secondary data were collected at different times from drug pharmacy, upazila livestock officer, veterinary doctor, journals, BBS, various published articles and reports.

2.7 Parameters studied

The interview survey enclosed the major items of information. General information of the beef cattle fattening owners, livestock population, management of fattening cattle, indigenous knowledge on rearing cattle production system and marketing of cattle, feed resources and feeding method, manpower involvement, availability, practice of anabolic steroid and feed additives. It also contained the sources of information to use anabolic steroid and feed additives and also the impact of anabolic steroids and feed additives on growth rate of fattened cattle. The use of anabolic steroid and feed additives negative perception and possible suggestions for controlling were also identified.

2.8 Research design

The research plan in the present study will be ex-post as the researcher has no control or could not manipulate the variables as the appeared. Personal surveillance and conversation with the farmers and companies, personal exchange of ideas with extension workers, review of text and opinions of others researchers in home will help the researcher to fulfill the objectives.

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2.9 Compilation of data and statistical analysis

The survey on different parameters in this study were illustrative descriptive. Consequently, data were compiled, tabulated and analyzed with simple statistical method to fulfill objectives of the study. The collected data were first transferred to MS-Excel spread sheet and compiled to facilitate the needed tabulation. Analysis was mainly done through tabular and graphical presentation. Tabular method was applied for the analyses of data using simple statistical tool like average and percentage as well as Chi-square (x2) value, and level of significance through SPSS Statistics 23.0 software for quantitative and qualitative data.

3. RESULTS AND DISCUSSION

3.1 Socio-economic conditions of the respondents

In this study 65 respondents were interviewed to monitor the socio-economic condition. There are numerous interrelated and ingredient attributes that exemplify an individual and form an essential constituent in the development of one‟s etiquette and uniqueness. In this study major 4 characteristics of the respondents were chosen to find out the socio-economic condition of the farmers. The selected characteristics included main occupation, level of education, annual income (BDT), sources of money. Number and percentage distribution of respondents according to their main occupation, level of education, annual income (BDT), sources of money and training on cattle fattening are following in Table 2.

Table 2. Distribution of farmers according to respondent's main occupation, level of education, annual income (BDT), sources of money and training on cattle fattening (n = 65)

Parameters	Categories	No. of farmers	% of farmers
Main Occupation	Agriculture	2	3
	Livestock	11	17
	Others Business	52	80
Level of Education	Can sign only	0	0
	Primary education	2	3
	Secondary education	8	12
	Higher secondary education	13	20
	Others	42	65
Annual Income (BDT)	2, 00, 000 - 5, 00, 000	2	3
	5, 00, 000 - 8, 00, 000	5	8

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	8, 00, 000 - 10, 00, 000	10	15
	More than 10, 00, 000	48	74
Sources of money	Own	5	8
	Bank Loan	44	68
	NGO Loan	4	6
	Loan from Mahazan	6	9
	Others	6	9
Training on cattle fattening	Have	4	6
	Have Not	61	94

Table 2 stated that out of 65 respondents the majority (80.0%) of the respondents involved chiefly in others business, followed by 17.0% were involved in livestock business and the rests of the 3.0% were engaged in agriculture, respectively. From the above table it is indicated that the levels of education of selected respondents were 65.0% others, followed by 20.0% completed higher secondary level, 12.0% completed secondary level and 3.0% of them were able to complete their primary level education respectively. Annual income of the respondents were ranked into 4 which was ranged BDT more than 10, 00, 000 were 74.0% and BDT 8, 00, 000-10, 00, 000 were 15.0% and BDT 5, 00, 000- 8, 00, 000 were 8.0% and the left behind of them which were very insignificant more than BDT 2, 00, 000- 5, 00, 000 were 3.0%. In case of sources of money, 68.0% of the farmers initiate their cattle fattening business by using loan from bank at high interest rate, 8.0% from own sources of money, 6.0% from NGO loan, loan from mahazan 9.0% and 9.0% loan from other sources. Farther 65 respondents only 6.0% respondents had cattle fattening training and 94.0% respondents whom had not any guidance on beef cattle fattening course. Information on similar studies is also accessible from different authors. Hashem et al. (1999); conducted a survey work on cattle fattening by rural farmers in different districts of Bangladesh and reported that 51.2% having primary education and 28.0% had no education. In addition Rahman et al. (2009); conducted an experiment on cattle fattening in Mymensingh district, and reported that about 22.0% farmers were trained and 78.0% were not trained. Ahmed et al. (2010); found that 20.5% farmers were trained and 79.5% were not trained. Besides Ali M. A. et al. (2011); reported that 56.0% had primary education, 20.0% had secondary education and 6.0% had secondary education and rest of them graduate and post- graduates 16.0% and 2.0% respectively and 52.0% farmers received training and rest of them were not trained.

3.2 Factors related with cattle fattening

Factors linked with cattle fattening according to farm type, number of cattle fattening, breed of cattle, pattern of the program, fattening period, sex of animal, starting and finishing age of cattle fattening, practice of anabolic steroid and feed additives.

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Table 3. Factors associated with cattle fattening (n = 65)

Parameters	Categories	No. of farmers	% of farmers
Farm type	Beef type	59	91
	Dairy type	1	1
	Beef + Dairy	5	8
No. of cattle fattening	2-5	4	6
	6-9	6	9
	>10	55	85
Breed of cattle	Indigenous	6	9
	Cross	59	91
Pattern of the program	Just before Eid-ul-Azha	39	60
	Round the year	26	40
Fattening period	3 months or less	3	5
	3 to 6 months	47	72
	6 months to 1 year	15	23
Sex of animal	Castrated male	13	20
	Uncastrated male	52	80
Anabolic steroid	Practiced	52	80
	Non-practiced	13	20
Feed additives	Practiced	61	94
	Non-practiced	4	6

Factors associated with cattle fattening by the Dhaka City respondents are shown in the Table 3. From the table it exposed that 91.0% of farmer's select beef type cattle for fattening purpose and rest of them decide on beef + dairy type farm. From 65 respondents, 85.0% respondent's farmer had more than 10 numbers of cattle for fattening at a time, 9.0% farmer's had 6-9 numbers of cattle and more than 2 numbers cattle fattening only by 6.0% farmers. Among the farmers, 9.0% select native breed while 91.0% farmer's choice cross breed for fattening purpose. The outline of

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the cattle fattening from the present study specify that practiced 60.0% fattening only before Eid-ul-Azha and the rest of the 40.0% farmers practiced fattening round the year. Fattening stage is the most significant issue because it procedures earnings percentage of the respondents. Out of 65 respondents 5.0% farmers done fattening 3 months or less and 72.0% farmers done their fattening period 3 to 6 months and maximum number farmers 23.0% farmers fattening period was 6 months to 1 year. Sex is the fundamental point for fattening for this cause 80.0% of them selected uncastrated male and rest of them fattened castrated male. Starting age of cattle fattening also differ farmer to farmer. Among the respondents 80.0% farmers practiced using anabolic steroid as a growth hormone and rest of them did not use any kinds of growth hormone at the period of fattening. Out of total respondents 94.0% farmers practiced feed additives for the purpose of cattle fattening and 6.0% those did not practiced feed additives. The survey indicated that most farmers fattened their cattle for the duration of 3-6 months and round the year, respectively.

4.3 Use of feed additives and anabolic steroids Table 4.

Use of feed additives in Dhaka City (n = 65)

Powder	Injection	Tablet
Acivit- DB (Vitamin, Mineral premix)	A-sol (Butaphosphan,Vit B_{12})	Anora (Iron, Vitamin)
Adivit-DB (Vitamin, Mineral premix)	Tocol (Vitamin E,Vit B_{12})	Roxivet (Vit B_{12}, iron)
Biomix-DB (Vitamin, Mineral premix)	Stresol (Vit B_{12})	Anaron (Iron, Vit B1,Vit B_{12})
Ranmix (Vitamin, mineral premix)	Buphos Vet (Butaphosphan,Vit B_{12})	Biolact Bolus (Enzyme)
DB-Vitamin (Vitamin A, D)	Catopen Vet (Butaphosphan,Vit B_{12})	
Nutrimix-DB (Methionine, Lysine)	Vitaphos (Toldimphos, Vit B_{12})	
Chemovet-DB (Vitamin, Minerals)	Acitol (Vit B_{12})	

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Curenal (Ferus Sulphate, Vit B_1)		

Table 5. Use of anabolic steroids in Dhaka City (n = 65)

Injection	Tablet
Orasone (Glucocorticoid steroid)	Deltasone (Steroids)
Dexone (Glucocorticoid steroid)	
Predalone (Synthetic steroid)	
Tredexanol (Synthetic steroid)	

Table 4 and 5 revealed that the majority of the farmers used anabolic steroid and feed additives as a growth supporter for cattle fattening and they have a preference in powder form. About 37.50% respondents used Acivit- DB, 25.0% Adivit-DB and the rest used Biomix-DB, Ranmix, Nutrimix-DB, Vitamin-DB, Chemovet- DB, Curenal and Complete-DB. About 23.0% respondents also prefer A-sol, 19.5% Tocol, 16.66% Stresol and rest of them used Catopen, Hematophen, Buphos-Vet, Phosvet, Vitaphos, Acitol, Orasone, Dexone, Predalone and Tredexanol as fattening agent in the form of injection. About 48.0%, 27.0% and the rest of the farmers used Anora, Roxivet, and Anaron and Biolact Bolus, Deltasone, respectively in the form of tablet as fattening agent. This result differed from the findings of Ali et al. (2011); who reported that 8% farmers used Pednivet and 78% used vitamin mineral premix as feed additives. This inconsistent might be due to cultural and / or geographical variation. Feed conversion efficiency was improved in bull calves by using Metafos (Minerals derivatives) and Biomix-DB (Vitamin-mineral premix) reported.

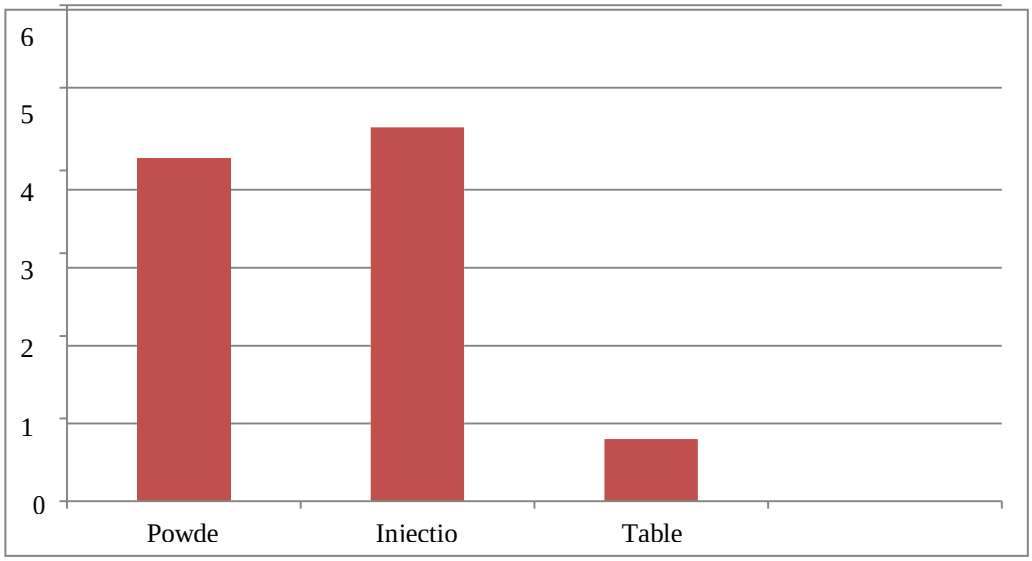

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Figure 5. Forms of anabolic steroids and feed additives.

Table 6. Use of anabolic steroids (n = 65)

Parameter	Categories	Practiced	Not-practiced	Total	X2 - value	Level of sig.
Dhaka City	Beribadh,	27	3	30	9.378	P<0.05
	Mohammadpur,					
	Keraniganj	6	3	9		
	Jatrabari	9	7	16		
	Mirpur	5	5	10		
Main Occupation	Agriculture	1	0	2	2.281	NS
	Liv. Business	9	3	11		
	Others	47	5	52		
Annual Income (BDT	2, 00, 000 – 5, 00, 000	1	1	2	11.093	P <0.05
	5, 00, 000 – 8, 00, 000	3	2	5		
	8, 00, 000 – 10,	9	1	10		
	00,000					
	Above 10, 00, 000	46	2	48		
Source of money	Own	5	0	5	12.514	P<0.05
	Bank Loan	43	1	44		
	NGO Loan	4	0	4		
	Loan From Mahajan	4	2	6		
	Others	6	0	6		
% of income from	<30%	15	2	17	0.218	NS
	30 to 60%	35	3	38		

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fattening business	>60%	9	1	10		
Farm type	Dairy	1	0	1	1.842	NS
	Beef	56	3	59		
	Beef +Dairy	4	1	5		
No. of cattle fattening	2-5	3	1	4	6.732	P<0.05
	6-9	5	1	6		
	>10	54	1	55		
Breeds of cattle	Indigenous	5	1	6	4.093	P<0.05
	Cross	58	1	59		
Pattern of fattening	Eid-ul-Azha	35	4	39	1.053	NS
	Round the year	21	5	26		
Fattening Period	3 m or less	2	1	3	6.360	P<0.05
	3 to 6 m	45	2	47		
	6 m to 1yrs	15	0	15		
Name of anabolic steroid	Powder	23	3	28	1.718	NS
	Injection	24	1	25		
	Tablet	10	2	12		
Source of anabolic steroid	Pharmacy	54	5	59	0.436	NS
	NGO worker	5	1	6		

NS, Non-significant (P>0.05); P<0.05 and P<0.01

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Table 6 revealed that anabolic steroid were practiced 90% in Mohammadpur, Beribadh and has a significant difference from others three areas of Dhaka City. Among the respondents occupation as others was around 90%. The result

demonstrated that respondents of low income used more anabolic steroid. About 30 to 60% of the family income came from cattle fattening business. About 69% respondents used anabolic steroid for the period of 3 to 6 months cattle fattening ($p<0.05$). While working with the farmers in rural areas of Bangladesh, Hossain (1986), and Hossain et al. (1996), reported cattle fattening periods of 4-5 months and 5-7 months, respectively.

Table 6 revealed the different parameters such as different areas, occupation, annual income, source of money, % of family income from fattening business, farm type, breed type and number of cattle fattened, fattening period etc. are considered which may influence to practice anabolic steroid in cattle fattening business.

Table 7. Use of feed additives (n = 65)

Parameter	Categories	Practiced	Not-practiced	Total	X2 - value	Level of sig.
Thana/ Ward/ Area	Beribadh, Mohammadpur	30	0	30	9.060	P<0.05
	Keraniganj	6	3	9		
	Jattrabari	13	3	16		
	Mirpur	8	2	10		
Main Occupation	Agriculture	2	0	2	0.667	NS
	Liv. Business	10	1	11		
	Others	50	2	52		
Annual Income (BDT)	2, 00, 000- 5, 00, 000	2	0	2	1.019	NS
	5, 00,000- 8, 00,000	5	0	5		
	8, 00,000- 10,00, 000	9	1	10		

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	Above 10,00, 000	46	2	48		
	Own	4	1	5		
	Bank Loan	43	1	44		
	NGO Loan	4	0	4		
	Loan From Mahajan	5	1	6		
	Others	3	3	6		
	<30%	36	2	38		
	30 to 60%	16	1	17		
	>60%	9	1	10		
	Beef	57	2	59		
	Dairy	1	0	1		
	Beef +Dairy	5	0	5		
	2-5	4	0	4		

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	6-9	5	1	6		
	>10	53	2	55		
	Indigenous	6	0	6		
	Cross	57	2	59		
	Eid-ul-Azha	38	1	39		
	Round the year	26	0	26		
	3 m or less	2	1	3		
	3 to 6 m	45	2	47		
	6 m to 1yrs	10	5	15		
	Castrated Male	12	1	13		
	Uncastrated Male	50	2	52		

Table 7 revealed that feed additives was used by all of respondents in Mohammadpur, Beribadh in Dhaka City andhas a significant ($p<0.01$) difference from others areas of Dhaka City (Keraniganj, Jattrabari and Mirpur). About 76.90% of the respondent occupations were others. The result demonstrated that respondents of high annual income used more feed additives and in that case below 30% of their family income came from cattle fattening business. About 78%

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respondents used feed additives for cattle fattening which was significantly ($p<0.01$) (associated with bank loan of money and they used mainly for 3 to 6 months ($p<0.01$).

3.4 Different feed additives and sources (n = 65)

Based on the sources of feed additives, the pie chart shows that about 45.0% respondents used vitamin mineral premix, 22.0% enzyme, 10.0% antibiotics and 23.0% anabolic steroids for cattle fattening. The sources of feed additives differs farmers to farmers. In pie chart 2 shows that most 45.0% of the farmers knew about the use of feed additives from neighbor farmers, 31.0% from livestock officer, 5.0% from NGO workers and the rest 19.0% from veterinary representative. This result differed from the report of Ali et al. (2011); who found that 90% farmers used feed additives, 8% used vitamin-minerals premix and only 4% used anabolic steroids

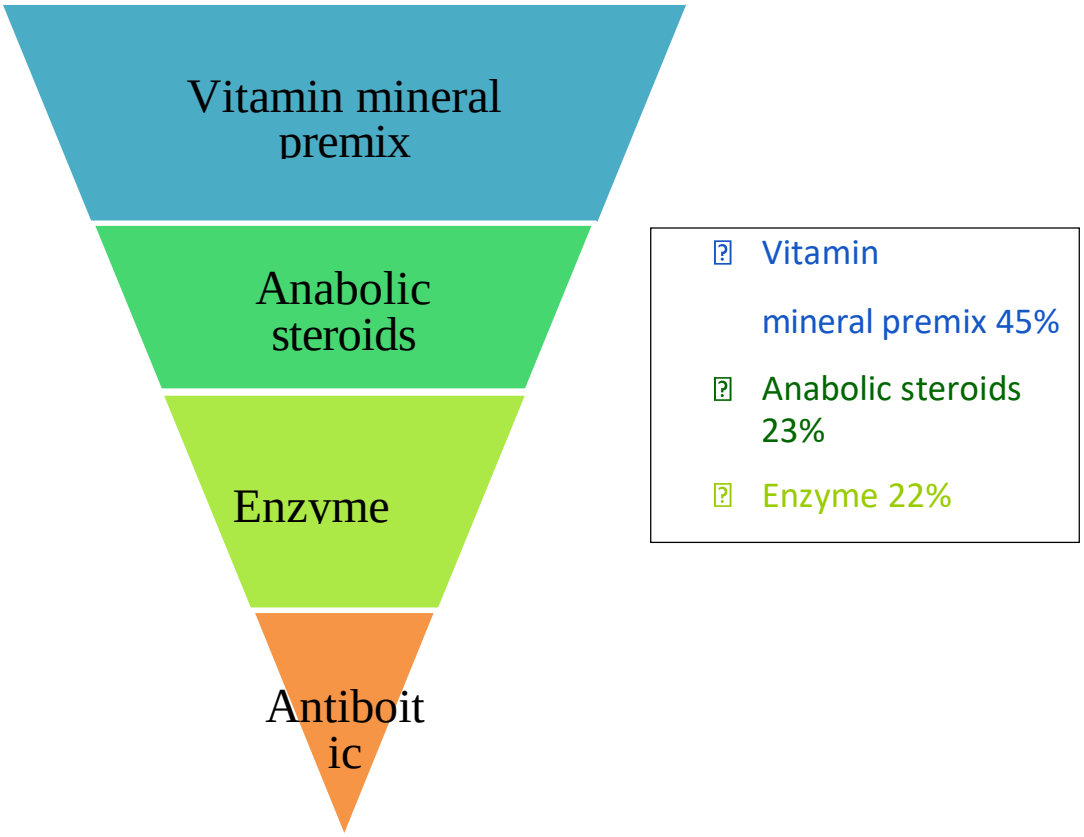

Figure 6. Different feed additives.

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- Neighbour Farmers 45%
- Livestock officer 31%
- Veterinary representative 19%

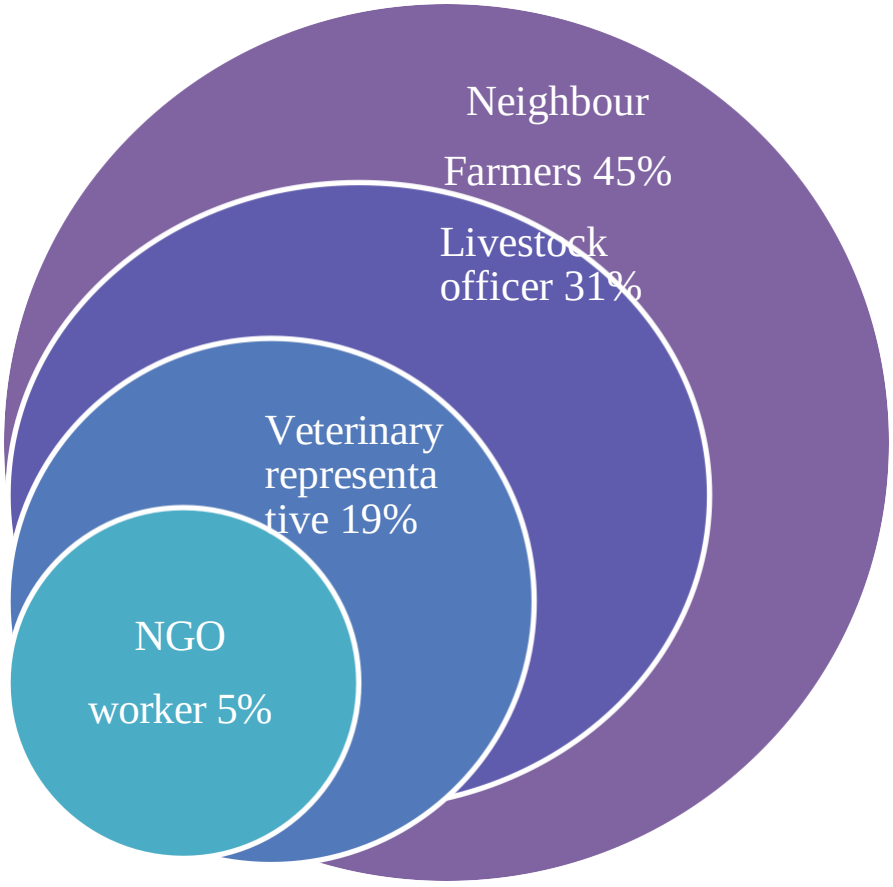

Figure 7. Sources different feed additives.

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3.5 Problems and suggestions to improve cattle fattening

Table 8. Problems related to cattle fattening (n = 65)

Problems related to cattle fattening	No. of farmers	% of farmers
High price of concentrated feed	36	55
Lack of knowledge about the selection of appropriate breed	11	17
Capital problem	8	13
Disease(s) problem	4	6
Lack of knowledge about feed additives and anabolic steroids	6	9

Table 8 shows that the most important problem faced by the respondents (55.0%) was the high price of concentrate feed. followed by lack of knowledge (17.0%) for the selection of appropriate breed, capital problem (13.0%), disease problem (6.0%) and lack of knowledge about feed additives and anabolic steroids (9.0%). The report show that lack of training, credit facilities, feed price hiking, disorganized marketing system were also problems related to cattle fattening in Bangladesh.

Table 9. Suggestions to improve cattle fattening program (n= 65)

Suggestions related to cattle fattening	No. of farmers	% of farmers
Selection of animal on the basis of breed, color, age, skin, sex and eye	7	11
Good feeding and management	28	43
Deworming for regular basis	5	7
Reduced cost of concentrates feed	20	31

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Availability of training facilities on cattle fattening	5	8

Table 9 also shows that 43.0% respondents suggested that good feeding and management is the first key to cattle fattening, followed selection of breed (11.0%), deworming (7.0%), reduction of concentrate feed cost (31.0%) and availability of training facilities for cattle fattening (8.0%).

4.SUMMARY AND CONCLUSION

The study was conducted to formulate a record on using anabolic steroids and feed additives in cattle fattening in the country. To attain the objectives of the study, a purposive appraisal was carried out among the farmers in Dhaka city of Bangladesh, who were concerned in cattle fattening activities before Eid-ul-Azha (2018). A total of 65 cattle fattening farmers were chosen for interview from the 3 areas of Dhaka city that were eager to make available information about cattle fattening practices. The data were collected from each farmer through direct interviewing technique and scrutiny of facts from their family circle. In addition to above, a total of 8 pharmaceutical companies, who imported and manufactured growth promoters (antibiotics, steroids, vitamin minerals premixes, probiotics and mineral premix) and sold huge amount of their products, were chosen on the basis of the information from Department of Livestock Services (DLS) to know the obtainable market situation in the country. All data were collected through interview schedule. The interview schedule for farmers for contained the major items of information such as farmer‟s information, feed sources and availability and type and cost of growth promoters used and the interview schedule for pharmaceutical companies contained the major items of information, such as company identification, product information and specification and market volume of product. The researcher conducted farm to farm survey efficiently. All possible efforts were made to explain the purpose of the study to the respondents in order to get valid and patient information.Out of the 65 respondents, others were the main occupation of the respondents, around 17.0% were involved in the livestock business, and rest of the respondents was in service agriculture. Annual income of the respondents were categorized into 4 which was ranged BDT 2 to 5 lacks were 3.0%, 5 to 8 lacks were 15.0% and rest of the 74.0% were above 10 lacks. In case of sources of money, 68.0% respondents were run their cattle fattening business by bank loan, 9.0% loan from mahazan, 9.0% loan from others sources, 8.0% from own sources and rest of the 6.0% from NGO loan. Out of 65 respondents only 6.0% respondents had cattle fattening training and 94.0% respondents whom had not any training on cattle fattening program.

The pattern of cattle fattening from the present study indicate that practiced 60.0% fattening only before Eid-ul-Azha and rest of the respondents use fattening round the year. Fattening period is the most important because it measures profit percentage of the respondents. Out of 65 respondents 5.0% done fattening 3 months or less and maximum number respondents 72.0% fattening period was 3 to 6 months and 23.0% respondents fattened their cattle for 6 months to 1 year. Sex is the crucial point for fattening for this reason majority 80.0% of them select uncastrated male and rest of them fattened castrated male. Anabolic steroids were practiced 90.0% in Mohammadpur and have a significant difference among others three areas of Dhaka

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city. Among the respondents occupation as others was around 80.0%. About 69.0% used anabolic steroid for the period of 3 to 6 months cattle fatteing ($p<0.05$).

Significant association was observed on the use of anabolic steroids with different areas of Dhaka city, annual income, source of money, number of cattle fattening, breeds of cattle, fattening period. The X2 value of annual income was 11.09 indicating that with increase of annual income was associated was decrease of anabolic steroids and >10 numbers of cattle are highly fattened by using growth promoters ($p<0.05$). Most of the respondents used bank loan for using anabolic steroids and feed additives ($p<0.05$).

Based on the sources of feed additives, about 45.0% respondents used vitamin- mineral premix, 23.0% anabolic steroid, 22.0% enzyme and 10.0% antibiotics for cattle fattening in selected areas. The sources of feed additives vary from respondents to respondents. In pie chart 2 shows that most of the respondents at first knew about the use of feed additives from neighbors‟ respondents 45.0%, 31.0% from livestock officer, veterinary representative 19.0% and 5.0% from NGO worker.

About 7.0% respondents suggested that deworming is needed on regular basis, 31.0% respondents suggested to reduce concentrated feed cost and 8.0% farmers suggested extending the extension of training facilities about cattle fattening, 11.0% suggested selecting appropriate breed for fattening and 43.0% suggested supplying the adequate feed for cattle fattening.

From the above results summarized in this section suggest that can be used anabolic steroids and feed additives as a growth promotant for the increased efficiency feed, growth, carcasses and maximum economic benefit in cattle fattening in Dhaka city.

To develop a sustainable beef cattle production system in Bangladesh which starts at the farmer‟s level for production and ending at consumer‟s level for consumption, it is necessary to find out the existing beef cattle production, marketing, processing systems and consumers perception. There is a great opportunity to develop suitable small scale cattle fattening both for satisfying animal protein requirement and production of quality beef.

REFERENCES

Ahmed, M., Hossain, M.M., and Akhter, S. (2002). Cattle fattening as income generating Ali, M.A., Shahzaman, Khan, (2011). Study on growth promoters used for cattle fattening in Bangladesh. M. S. Thesis. Department of Animal Nutrition, BAU, Mymensingh, Bangladesh.

DLS, Department of Livestock Service, Bangladesh, 2018

Hashem, M.A., Moniruzzaman, M., Akhter, S. and Hossain, M.M. (1999). Cattle fattening by rural farmers in different districts of Bangladesh. Bangladesh J. Anim. Sci. 28(1&2): 81-88.

Hashem, M.A., Moniruzzaman, M., Akhter, S. and Hossain, M.M. (1999). Cattle fattening by rural farmers in different districts of Bangladesh. Bangladesh J. Anim. Sci. 28(1-2): 81-88.

Hossain, K.M., Nahar, T.N., Talukder, A.I. and Kibria, S.S. (1996a). Beef fattening by rural women. In the proceeding of a national workshop on case studies “Success stories of women in Agriculture”. 27-28 August, 1995, BARC, Dhaka, Bangladesh.

Hossain, M.M. (1986). Study of cattle fattening program by landless and youth.

Bangladesh J. Anim. Sci. 15 (1-2): 85-88.

Vol. 07, No. 04; 2022

ISSN: 2456-8643

Hossain, M.M., Saadullah, M. and Miah. M.N. (2004). Effect of Urea Molasses Straw on Growth Performance of Cattle. Bangladesh J. Anim. Sci. 33(1- 2): 67-77.

Hossain, M.S., Hossain, M.M., Hashem, M.A. and Ali, R.N. (1996b). Transfer of feeding technology to promote cattle production of village level. Bangladesh J. Anim. Sci. 25(1-2): 51-56.

Rahman, M.A., Hossain, M.M., Azad, M.A.K. and Akhter, S. (2009). Factors affecting beef cattle production from farmers to consumers. Bangladesh J. Environ. Sci. 17: 182-187.

Rahman, S.M. E., Hossain, M.M., Majumder, S. and Samad, M.A. (2001). Cattle fattening with Urea Molasses Straw and its effect on intake, growth and digestibility. Bangladesh J. Anim. Sci. 30(1-2): 99-105.

Skunmun, P., Chantalakhana, C., Pungchai, R., Poondusit, T. and Prucsasri, P. (2002). Comparative Feeding of Nale Dairy, Beef Cattle and Swamp Buffalo. 1. Economics of Beef Production. Asian-Aust. J. Anim. Sci. 15(6): 878-885.