

FACTORS RELATED TO SMALL SCALE BEEF FATTENING PROGRAMS IN DINAJPUR DISTRICT OF BANGLADESH

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ABSTRACT

The experiment was conducted to investigate the factors related to small scale beef fattening programs in three upazilas (Birganj, Kaharul, and Khansama) under Dinajpur district of Bangladesh. Data were collected using an interview schedule from randomly selected 75 farmers who were involved in small scale beef fattening programs. In this study out of the 75 farmers 54.7% are involved in agriculture, 26.7% in business, 13.3% in service and 5.3% in beef fattening. About 44.7% farmers fattened beef for 3 months. Fifty six percent farmers used own capital for beef fattening, 24% took bank loan and remaining farmers lending from others sources. About 57.3% farmers had taken short training on beef fattening whereas about 42.7% did not take any training on beef fattening. More than 34.7% farmers used beef fattening tablets, 28.0% Urea Molasses Straw (UMS), 26.7% used Urea Molasses Block (UMB) in beef fattening. Sixty six percent farmers reported shortages of animal feed, 50% reported lack of credit and 93.3% reported high cost of feed as the major problems of small scale beef fattening. In conclusion, the result of present study would be useful information to farmers and researchers to identify the management of small scale beef fattening practices in Bangladesh.

Key Words: Beef fattening, Management, Factors, Dinajpur

INTRODUCTION

Bangladesh is one of the densely populated countries in the world with a total population of about 156 million and about 73 percent of this population lives in rural areas (Bangladesh Bureau of Statistics, 2011). So the development of this country depends greatly on the development of rural people. The economy of Bangladesh depends mainly on agriculture including livestock, poultry and fisheries. Among them livestock is an inseparable and integral part of the agricultural farming and agribusiness system. Beef fattening is an emerging sector for employment and income generation for the rural people, especially landless, destitute and divorced women. One of the advantages of the beef fattening by the rural farmers is that they use locally available cattle feed resources during the Eid-ul-Azha festival. In recent years the women farmers of Bangladesh have been involved and sustained beef fattening program in rural areas of the country. The

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information available in the literature on beef fattening by small farmers in rural areas are few and sporadic (Hossain, 1986; Hossain *et al.*, 1996; Huq *et al.*, 1997, Hashem *et al.*, 1999, and Ahmed *et al.*, 2010). To develop a sustainable beef cattle production system in Bangladesh which starts at the farmers' level for production and ending at consumers' level for consumption, it is necessary to find out the existing beef cattle production, marketing, processing systems and consumers' perceptions. For this it is prime important to find out the existing beef fattening system and its related factors.

Therefore, the objective of this study is to investigate the feeding, management and marketing system of small scale beef fattening as well as to identify the problems related to beef fattening.

MATERIALS AND METHODS

The present study was conducted to investigate the existing status of cattle fattening programs of rural farmers in three Upazilas (Birganj, Kaharul, and Khansama) under Dinajpur district of Bangladesh during the period from January 15 to February 15, 2012. Total 75 farmers were randomly selected from three Upazilas and data were collected through an interview schedule from farmers who were involved in beef fattening.

Interviews were normally conducted in the market or in farmer's house during their leisure time. Major focal points of the interview were the general information about the farmers, factors associated with beef fattening, daily routine activities, feeding and marketing system of beef fattening. Problems and probable solutions related to beef fattening were also focused in this study.

The collected data were analyzed statistically by using simple statistical tools like average and percentages as well as Chi-square through Statistical Package for Social Science (SPSS) software.

RESULTS AND DISCUSSION

Socio-economic background

Number and percentage of farmers according to their age group, education level, occupation and source of capital are shown in Table 1. It is revealed that the majority (45.3%) of the farmers was in middle age category, 16% were young and remaining were old age (38.7%).

Educational background of the 75 farmers, as observed in the present study, 72% were within the elementary level, 26.7% were secondary and remaining 1.3% were within the intermediate level, suggesting that the maximum farmers were within the elementary level. Out of the 75 farmers 54.7% are involved in agriculture, 26.7% in business, 13.3% in service and 5.3% in beef fattening as their main job. About 56% farmers used own capital for beef fattening, 24% took bank loan and remaining lending from others sources (like

NGO loan) for beef fattening. The result of this study was similar with Hossain (1986) where he found that the average age of the farmers range from 27 to 40 years and they had a minimum land for cultivation.

Table 1. Distribution of farmers according to their age group, education level, occupation and source of capital

Parameters	Categories	Number of respondents (n = 75)	Percent of total respondents
Age	Young age (<30 years)	12	16.0
	Middle age (30-40 years)	34	45.3
	Old age (>40 years)	29	38.7
Education level	Primary level	54	72.0
	Up to SSC level	20	26.7
	Above HSC level	1	1.3
Occupation	Agriculture	41	54.7
	Business	20	26.7
	Service	10	13.3
	Beef fattening	4	5.3
Source of capital	Own	42	56.0
	Bank	18	24.0
	Others (like NGO loan)	15	20.0

Factors associated with beef fattening

Factors associated with beef fattening by the farmers are shown in Table 2. About 60% farmers used both *deshi* and cross bred bull cattle for fattening, 28% *deshi* and 12% used cross breed. Most of the respondents fattened cattle for 3 months (44.7%) and rest fattened for 6 months or one year.

More than 53% farmers had taken short training on beef fattening whereas about 42.7% did not take any training on beef fattening. About 34.7% farmers used beef fattening tablets, 28.0% UMS, 26.7% UMB and remaining used none of these in beef fattening.

Out of 75 farmers, 90.7% used vaccine against infectious disease (like Foot Mouth Disease, Rabies, Black Quarter etc) regularly for fattening cattle. The result of this study was same with Begum *et al.* (2007) where they reported that 83.3% farmers used vaccination for beef fattening and about 79.1% farmers fattening beef 3 to 4 months before Eid-ul-Azha. While working with the farmers in rural areas of Bangladesh, Hossain (1986) reported beef fattening periods of 4-5 months and 5.7 months, respectively.

Table 2. Factors associated with beef fattening

Parameters	Categories	Number of respondents (n = 75)	Percent of total respondents (n = 75)	Chi-square value
Breed type	<i>Deshi</i>	21	28.0	
	Cross	9	12.0	
	Both	45	60.0	
Duration of fattening Program	3 Months	32	44.7	
	6 Months	33	42.0	
	One year	10	13.3	
Govt. office support	Yes	25	33.3	.200
	No	50	66.7	
Training on cattle fattening	Taken	43	57.3	.097
	Not taken	32	42.7	
Technology used for fattening	UMB	20	26.7	
	UMS	21	28.0	
	Tablets/Powder	26	34.7	
	None	08	10.6	
Vaccination	Regularly	68	90.7	.145
	Irregularly	7	9.3	

Chi-square test ($P < 0.01$)

Therefore, in this study, the major factors involved in small scale beef fattening are capital, feeds and fodder, grazing land, availability of cattle and their price, labor and labor management, health care and treatment, training on cattle fattening and location of market.

Feeding system in beef fattening

Both extensive and semi-intensive production systems were practiced reported by the respondents for beef fattening. Extensive system consisted of grazing their own croplands after harvesting crops and grazing on roadside grasslands. Semi-intensive system included cut and carry and stall-feeding system. During rainy season (March to August) rice straw, green grass, mustard oil cake, wheat bran, rice polish and molasses on the other hand during dry season (September to February) rice straw, wheat bran, rice polish, molasses, water hyacinth, tree leaves, weeds and kitchen waste were used by the farmers. Rice straw was the main feed source in the study areas. In all the Upazilas under study, most of the farmers compulsorily bought rice straw as their cattle feeds. Chopped rice straw was offered mainly during stall-feeding with adequate supply of water. Farmers used ponds, wells, tube-wells as the source of water for their cattle. Traditional feed and

water troughs were used for these purposes. Many respondents had knowledge on some of the feeding technologies and high quality fodder cultivation. In the study area, 57.3% the farmers using UMS technology to fatten their cattle. None of them was found to cultivate fodder crops for this business owing to lack of own land. Out of the 75 farmers, 33.3% farmers said that feeds were available but 66.7% farmers said that feeds were not available (Table 3). The result of this study was in agreement with Rahman *et al.* (2001) where 70% farmers reported that feeds are not available. One of the advantages of the small scale beef fattening by the rural farmers is that they used locally available feed resources. Indigenous knowledge on cattle feeding like chopping of straw, mixing of green grass with straw, feeding tree leaves etc (Rahman *et al.*, 1998) practiced by the rural farmers. Before the festival of Eid-ul-Azha, animals are taken to local market for selling, on market days (*Hut*). Buying and selling are completed through bargaining practice where middlemen participated sometimes.

Problems and suggestions on fattening cattle

Problems and suggestion on fattening and marketing of cattle are shown in Table 3. About 93.3% farmers mentioned that high price of the cattle feeds is the greatest problem for small scale beef fattening.

Table 3. Problems and suggestion on fattening and marketing of cattle

Problems	Percent of total respondents (n = 75)	Suggestion	Percent of total respondents (n = 75)
1. High price of feeds	93	1. Lowering the feed cost	85
2. Higher transportation cost	81	2. Improvement of market facilities	96
3. Price fluctuation	70	3. Need government support	70
4. Shortage of cattle feed	66	4. Increase production and preservation of cattle feeds & fodder	60
5. Lack of credit	50	5. Providing bank loan facilities	65
6. Lack of sufficient green grass supply	40	6. Preparation of balanced ration to reduce the cost	50
7. Lack of knowledge about fattening	38	7. Training facilities to the people	70

The result of this study was same from Ali and Anwar (1987) where they found that shortage of animal feed was the greatest problem of the farmers for rearing cattle. Hashem *et al.* (1999) also reported that lack of training, lack of credit facilities, price variation in different markets, disorganized marketing system were the problems for beef fattening in Bangladesh. About 81.3% farmers had the problem of transporting cattle for marketing under the study area.

CONCLUSION

The results of this study will be useful to farmers and researchers to consider feeding, management and marketing before starting to beef fattening.

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