Analysis of Marketing Issues of Beef in Nawabshah District

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Abstract: *Studies on production and marketing of beef in Nawabshah District were carried out during the year 1997-98, Seven markets of large ruminants were selected for the study. In all 160 livestock framers, i.e. 100 producers, 15 each traders, middle men, final seller and commission agents were interviewed randomly from various markets of the Nawabshah District.*
The study revealed that out of 100 farmers, 30.58 percent were literate and 59.42 percent were illiterate. The producer earned the net margin of Rs.1653.73 for each buffalo and Rs.1392.67 for each cattle after incurring the total expenditure of Rs.17253.27 for buffalo and Rs.132124.00 for cattle.
The marketing agencies involved in the trade were identified as trader, middleman and final seller. While the middleman incurred Rs.116.40 for buffalo and Rs.100.70 for cattle, final seller incurred Rs.107.25 for buffalo and Rs.97.50 on cattle. The price spread between producer and trader, trader and middleman, middleman and final seller was Rs.372.93, Rs.937.80 and Rs.850.00 for buffalo and Rs.711.03, Rs.801.40 and Rs.825.00 for cattle respectively. Marketing margin for trader, middleman and final seller was 1.96, 4.72 and 4.10 percent for buffalo and 4.62, 4.95 and 4.85 percent for cattle respectively. The maximum markup was 4.95 and 5.21 percent earned by middleman for the sale of buffalo and cattle respectively, while the minimum percentage received by trader was 1.80 percent from the sale of buffalo and 4.18 from the sale of cattle.
The price paid by consumer on buffalo was shared as 89.58 percent by producer, 1.80 percent by trader, 4.52 percent by middleman, and 4.10 percent by final seller, whereas, in case of cattle it was shared as 86.27 percent (producer), 4.18 percent (trader), 4.7 percent (middleman), 4.85 percent (final seller).
On expenditure of one rupee in the trade, the middleman received the highest benefit i.e. Rs.7.056 whereas the producer received the lowest i.e. only 0.096. However, the final seller earned Rs.6.758 and trader Rs.2.528 for buffalo. In case of cattle final seller earned the maximum Rs.7.462 profit and producer received the minimum Rs.0.106 while trader and middleman earned the Rs.6.514 and 6.958 profits respectively.
Key Words: *Analysis, Marketing, Issues, Beef, Nawabshah District*

Introduction: The meat refers to all parts of the dressed carcass, whether beef, veal, lamb and mutton. Meat not only consists of muscular tissue, bones and fat, but also includes the edible glands and organs removed at slaughter (Cole, 1966).

The nutritional value of food comes from its protein, vitamins, minerals and fat contents. Meat is essentially of a high biological value. Major contribution of meat of the diet is on account of its high quality protein content including fatty acids, B-complex, vitamins and minerals.

In Pakistan meat production comes from cattle, buffaloes, sheep, goat and in some areas from camels, (Ahmed and Alvi, 1988). The country produced 1.6 million metric tons of meat in 1991-92 of which 47.6 percent from cattle and buffaloes while rest (52.4 percent) from sheep, goat etc. (anonymous, 1992). These animals are sold in primary rural markets and are purchased according to visually appraised weight. Meat animals are brought by middlemen, who only estimate the weight of an animal from its appearance. The middlemen resell the purchased animals in the city at cattle market to butcher for slaughter purpose (Umrani 1993). The marketing of meat starts from the slaughtering of animals. Thus livestock slaughtering is an important part of the marketing of beef and its by products and are sold through various channels from slaughter house to consumer (Isani, 1992).

The marketing of meat plays a pivotal role in the beef enterprise, however, no systematic attempt has been made to study the marketing practices of meat at various district of Sindh. Therefore, an investigation on marketing of beef in the district of Nawabshah was designed to study and asses the beef animal production patterns and their marketing in Nawabshah district.

II- REVIEW OF LITERATURE

In Pakistan meat production comes from cattle, buffaloes, sheep, goad and to some extent from camels (Ahmed and Alvi, 1988) and the country produced 1.6 million metric tons of meat during 1991-92 of which 47.6% is from cattle and Buffaloes and remaining 52.4 percent is from sheep, goat etc. (anonymous, 1992). These animals are sold in primary rural markets and are purchased according to visually appraised weight. Meat animals are brought by middlemen, who only estimate the weight of an animal from its appearance. The middlemen resell the purchased animal in city at cattle market to the butcher for slaughter purpose (Umrani, 1993).

The marketing of meat starts from the slaughtering of animals. Thus livestock slaughtering is an important part of the marketing of meat and its by products which are sold through various channels from slaughter house to consumers (Isani, 1992).

In a study Blyth (1980 found that the producers, traders and policy makers were with a better understanding of the marketing system, which was based on their future plans and predictions. A system of intervention buying of deficiency payments ensured that producers were guaranted a minimum price. In addition, compensatory payments upto a reference price level gave farmers additional income support during the transition period from 1980-1984. The whole arrangement was protected from imports from third countries with a system of tariffs, licenses and "Voluntary Restraint Agreement" EC exports, subject to a claback tax under the variable premium system and to refund under the intervention system, were maintained at traditional levels to current markets. Any increased production in the U.K was likely to be exported to the continent, so the British market should have remained stable, N.Z. has agreed to limit sales to the EC at 245-500 tons in return for a reduction in the import levy to10 percent. There were a number of disadvantages and benefits for N.Z attached to this agreement. e.g no allowance for market growth but higher this agreements, e.g. no allowance for market growth but higher per unit returns. Whilst there was guaranted access to the market for this quantity upto 1984. Exporters needed to keep a close watch on any further long terms developments within the EC.

Senanayake (1980) identified the role of rural markets in Srilanka for marketing agricultural products and supplying consumer items and also as a principal marketing outlet for products of small craftsmen at village level. The main objectives of the survey was to assess the adequancy of rural markets serving small farmers in terms of number, size, location, physical facilities and operational efficiency, with a view to providing basic information for formulating government policy and programmes for rural market centre development. The study dealt with (2) historical evolution of the rural markets in Srilanka, (3) role of rural markets for small farmer's development in the kurunegala district (4) operations of rural markets in the district, (5) pricing efficiency at rural markets in the district, (6) major problems of supervision and administration, physical facilities, supporting services, pricing efficiency, market structure, trading practices and manpower development and recommendations for resolving them.

Averin (1981) described that the economic legal and organizational aspects of the system of insuring farm animals came into effect in 1.1.1779 in U.S.S.R. much space was given to the method of establishing damage and of calculating insurance benefits. The main part of the study death with the insurance of livestock in Kelkhozy and Sovkhozy, but insurance of privately owned livestock as well as those in other types of state and collective farms.

+ Buccola (1981) estimated that Bermoulian decision theory was used to characterize a firm willingness to purchase or sell the goods under contract. Contract supply and demand functions were then specified in which willingness to contact was related to contract-pricing provisions, to decision maker risk aversion, to open market opportunities and to other factors. On the basis of these relations, a theory of exchange was proposed which incorporated decision making under risk. Implications of the analysis differed by contract type, cost-plus, and fixed price forwarded deliverable contracts were emphasized.

+ Bottcher (1981) conducted study on the role of the marketing system in the development process. It was observed that there were links through the flow of capital, the integration of agriculture with the rest of the economy and agricultural marketing as a sub-system of the economy. The effects of price and marketing arrangements and of the lack of skilled manpower, management, physical and institutional infra-structures were also examined, in particular: how marketing was influenced by government price policies. Proposals for improvement included greater participation of groups involved at all levels, the strengthening of cooperation, especially at village level, the training of skilled manpower and the revision of price policies.

Davis and Weisenborn (1981) discussed the practical experience of designing a market development programme in E1-Salvador and the implications, it had for directly helping the small producer and indirectly, the smaller consumer. The experience offered some valuable lessons in the design of small farmer development programmes for LDCs. It was concluded that an effective programme must go beyond the construction of market facilities to include a price stabilization policy, a working capital fund, a regional storage network and institutional support.

Rao (1981) reported that the availability of weekly markets (locational aspects of the channels of marketing) to farmers and traders was examined for the pre-irrigation stage in Karnataka, India. He indicated that the weekly markets in the district, which were located in highly, populated settlements, function in the way they were expected to. These should be made into secondary markets, while at the taluka head-quarters wholesale (regulated) markets should be further strengthened. He suggested that a strong network of weekly markets would provide economic stability for farmers.

Span (1981) reported the susceptibility to predation, the small size of goats and sheep and some great advantages in the small scale operations of most villages.

With small units there was much greater financial flexibility and less risk in sales and purchases and adjustment of the pressures on pasture resources was easier than with cattle. The goat appeared to have developed and remarkably comprehensive range of mechanisms which enable it to utilize, more fully than most livestock, the wide range of resources in the African rangelands. So far these attributes had enabled goats to maintain (or decrease the rate of decline in) the output of animal products from deteriorating rangelands.

Sabrani and Siregar (1981) indicated that the place of small ruminants in farm family employment, crop use, production and food cash production was clearly important in farming in improvement programme. Family size appeared to be a factor, acreage was highly and positively correlated in perennial cropping system, but not in seasonal crop production systems. Small ruminants were

adaptable to small scale farming system and readily marketable, they also form an increasing proportion of total meat provision as beef supply went into long run decline. In addition to their compatibility with small scale farming system would allow small ruminants to play a part in adaptation processes. Capital provision and the investment climate would need improvement, as it would help the development of farmer's skills and of relevant institutional support system.

Riordan (1982) observed that the gross margins earned by sheep production on the lowlands were 70 percent above than those from barley and from beef in 1980. Less capital was needed to finance sheep production than many other agricultural enterprises notably beef in Ireland. There was ample scope for growth in output because, the EC sheep meat regime provided a market where prices upto 1985 would at least be maintained relative to other products and where Ireland's exports only provided, hill lambs could be fed and managed to make them for more valuable as they sell for less than half of the price of lambs from the lowland flocks.

The attraction of producing sheep on the lowland, could be increased by greater productivity of both grass land and ewes, the work of shepherding could be reduced by the development and use of easy care system, dealing with the problem of dogs worrying sheep. Seep provided exports worth IR pound 55 mill in 1981. Sheep were a major product of the disadvantaged area including all the countries west of the Shannon. Farmers in these courtiers producing sheep were more dependent on sheep and had lower levels of total output and income than most of the other farmers in Ireland. Aids given to hill sheep producers in the disadvantaged areas had added notably to the profitability of hill sheep and there had been growth in number of hill ewes. There was now scope for raising the value of each lamb produced by hill ewes.

Maloney (1982) emphasized the problem of providing marketing facilities for rural famers in developing countries so that they could increase production. This was exacerbated by the existence of too few small or medium-sized market centers to serve very large numbers of villages with no services. As an alternative to using scarce developmental capital to establish permanent market facilities in poor in areas which neither might nor initially be able to support them, units in periodic markets could reach areas large enough of support themselves by moving from market to market. He investigated those markets in Tamil Nadu and their relationships to the central place hierarchy of the region for the dual purposes of comparing them with similar phenomena in other areas and of using them in economic development investments.

Pickard (1982 suggested that the development of markets from the primitive producer-to-producer market, through producer- to trader and trader-to consumer system, to the more sophisticated trader-to-trade market, became increasingly important as the economy of a country developed. It went on to look at the present, predominantly consumer, market in Khartoom as an example of how marketing system might change in developing countries, before considering the growing influence of modern super markets and food processors on the marking of agricultural produce in advanced economies.

Performed Siddiqui, et al. (1983) performed an investigation in which the herd maintained on selected farms which averaged to 36 SSU on a small group of farms, 68 SSU on medium group of farms 232 SSU on large group of farms and 82 SSU on all classes of farms. They reported that Capital investment averaged rs.370.31 per SSU on small farms, Rs.344.03 per SSU on medium farms, Rs.324.09 per SSU on large farms and Rs.342.36 per SSU on all classes of farms. Net returns averaged to Rs.114.47 per SSU on small farms, Rs.131.75 per SSU on medium farms, Rs.190.40 per SSU on large farms and Rs.162.05 per SSU on all classes of farms. Input: output ratios were on an average calculated to be 1:1.50 on small farms, 1:1.64 on medium farms, 1:2.45 on large farms and 1:1.95 on all classes of farms.

Khaskheli (1983) disclosed that in terms of breakdown of consumer's rupee, livestock wholesaler (producer-trader-channel) received 86 percent. Service agencies 9 percent and 5 percent as a profit of retailer.

Moreover, the livestock wholesaler (producer-trader-channel) of sheep and goat earned 85 percent. Service agencies pocketed 11 percent received as a profity of retailer.

In another study Herbon (1984) observed that a rural local market in a developing country fulfilled various functions for its surroundings villages. Those included acting as an administrative centre for transactions between villages and government, a centre of economic exchange between households in the same or different villages and between household and government. A labour exchange and a centre of social and information exchange and of social integration. The village market also linked the local area with central district and external markets and with the network of local markets throughout the country.

Olafsson (1984) studied 120 family farms in Iceland and classified them into three groups, dairy, mixed (sheep and diary) and sheep. Family income for all farms averaged 481 and 171 Kr. The dairy farms were largest in size (809 sheep equivalents), and had on average a family income of 559 and 395 kr. And the mixed farms had an average family income of 406 and 429 kg. The sheep farms (9366 sheep, equivalents) which were smaller in size than the mixed farms (492 sheep equivalents), had an average family income of 364 and 106 kr.

Average mild yield on all farms increased by 1.9 percent and lamb production per ewe increased by 2.3 percent. The maximum production policy per animal advocated by the advisory services for a number of years and followed by great number of farmers, particularly younger farmers, had proved to be the right policy for farmers, in general to increase the gross margin per sheep and

dairy cow as well as per man-hour. Great disparity emerged between farms. The gross margin per sheep ranged from 600 to 3000 kr. While gross margin per dairy cow ranged from 12.000 to 5.000 kr.

Anonymous (1985) concluded that despite the ravages of drought and continued diversification of new south Wales primary producers into various cropping enterprises, the sheep industry remained as and most consistent rural earner of local and export income. In addition to the above. New South Wales Australian sheep producers earned upwards of 30 million per annum in the sale of live sheep for export for slaughter through South Australia, Victoria and Queensland.

Hamm. Et al. (1985) designed a study regarding buyers on computerized auctions to exhibit man of the characteristics expected in conventional auctions. The they controlled the timing of bids and tried to assess the buying strength on the market for that particular auction. Bidding was anonymous and the anonymity feature appeared to increase the level of competition. Prices were higher because buyers continued to compete at the end of the auction, behavior which would not be expected in conventional auctions where bidding was not anonymous, computerized auctions featuring anonymous bidding might have the potential to increase competition in thin markets.

Shah and Davis (1985) conducted study on the nature, magnitude and trends in the structure of the Sindh date market and defined inter-relationship among those variable. The major structural variable analyzed was number of data of sellers and buyers together with their size distribution. Special emphasis was placed on examining the relationship between producers and wholesalers. The other structural variables examined specifically at wholesale level were type of ownership, methods of operation, barriers market entry and exit, the extent and nature of integration.

In a study Warren (1985) described the term "Marketing" it was relevant to farmers as individuals and whether it implied any radical changes for the U.K agricultural industry. He examined some of the marketing problems that farmers face as individual business, the reasons why they occur and what possible course of action, if any, farmers could take in order to respond. He concluded that the main constraints to farmers improving their marketing management was that they did not have an adequate information on which to base their marketing decisions. This seems to indicate that it was marketing management rather than marketing itself which was a risky occupation and farmers would not be able to meet demands to improve their marketing skills unless such risk was substantially reduced.

Bullock (1985) studied concepts and definitions used in the risk and uncertainty literature and examined questions of the adequacy of future markets in risk management. He concluded that there were differences between risk and uncertainty. He conducted that there were no risky markets, but decisions were risky and market prices were uncertain. The price existed exits because of decision makers inability to predict prices into the future with perfect accuracy, future markets and adequate mechanism for managing price risk provided an appropriate future contract exists and decision makers take into account price information provided by future markets as economics activates were selected, future markets could not be used to ménage price risks that were generated by decision makers failures to recognize and accept market realities and that futures markets for agricultural products should be extended 2 to 3 years into the future in order to provide opportunities to manage price risks over longer periods than was currently possible.

Oafsson (1985) performed an investigation in which 117 family farms in Iceland were classified as dairy farms with more than 70 percent of the gross output either from dairy or sheep (21 farms) sheep farms with more than 70 percent of the gross output from the sheep enterprise (28 farms). Family income for all farms averaged 850 to 814 kr. The dairy farms were largest in size (831 sheep equivalents) and had an average family income of 930 to 338 kr. Family income and the mixed farms had an average of 770 to 200 kr. The sheep farms (363 sheep equivalents) which were smaller in size than the mixed farms (552) equivalents) had an average family income of 718 114 kr. The gross margin per sheep ranged from 1100 to 4900 kr and the gross margin per dairy cow from 19,000 to 77,000 kr.

Sempeho (1985) described the traditional method of keeping small ruminants in south Western Nigeria and proposed measures for future development. Extensive data were collected on small holder in two small regions, typical of the humid tropical zone of West Africa (forest zone and derived savanna). In additional, data from other studies within the H.C.A small ruminant programme were used. Small ruminants were traditionally kept in small hers, with a high loss of young animals. In additional to natural pastures, the main source of fodders were the by-products of traditional food processing. The range of fodder was particularly poor during the dry period. Breeding animal on the whole were obtained by borrowing young female animals. Since owner of large-sized herds could hardly refuse requests to browse animals, the economic input for increasing animals stock was minimal. The traditional practice of selling animals through middleman and significant seasonal fluctuations in demand characterized livestock marketing animal health and the quality of fodder during the dry season had been identified as the most limiting factor in improving the rearing of small ruminants.

Sands (1985) analysed farm level determinants of livestock marketing in the mixed farming systems of eastern upper Volta. Rurkina Faso. Data gathered in 1978-79 from a farm survey, were used to describe the production, management and marketing practices of farm households, Multivariate Tobit analysis was utilized to estimate the relationship between household socio-economic characteristic and livestock sales, important factors in household livestock marketing decision making. Factors such as household purchases of food grain, livestock production expenditures and average (defalated) prices of small ruminants were

found to be important determinants of monthly household from small ruminant sales. Since most of the sampled household were deficit grain producers, their use of livestock sales receipts to purchase grain was crucial to their survival. Monthly household cattle sales were found to be closely correlated with average (defalated) cattle prices, purchases of other cattle income from commercial activities but not the purchase of food. Most of the adjustment resulting from a change in the major determinants of decision to sell or not to sell an animal rather than the decision to market more animals during any given month.

Anonymous (1987) reported that livestock was marketed either informally by the producer or at thousands of small rural, usually weekly markets near large urban centers. Most of the markets, except in Baluchistan were controlled by local authorities, but the right to manage and collect fees was often sold to private contractors by tender. The markets provide few facilities other than shelter, had no weighing scales and do little to encourage orderly marketing. Fees at large terminal markets were about Rs,10.00 per large animal but might be higher in small markets.Charging a percentage of the sale price, typically the sale was handled by a commission agent with the price based on the trader's estimate of the likely carcass weight of the live animal and his knowledge of wholesale meat prices. Marketing of livestock animals was entirely on a unit basis as there were no weighing facilities.

Futton (1989) stated that in 1987 beef cattle production accounted for approximately 34% of gross agricultural output and 31% of the 'regional farm' gross margin in N. Ireland. The value of beef exports was 215 million (at farm gate prices), representing 42% of the total value of agricultural exports. The report analyzed developments that have occurred within the processing sector during the 1980s. The changing pattern of cattle throughout in abattoirs were examined. Differences in seasonality ofslaughtering, long-term trends in throughout and types of beef animals handled are quantified. The employment characteristics within the trends, especially in relation to cattle throughout were looked at Market outlets for Northern Ireland beef were also focused. Intervention and non-intervention beef movements treated separately so that the changing situation with respect to these two distinct categories could be clearly identified.

MATERIAL AND METHODS

For the purpose of present study data were collected by survey method on production and marketing patterns of beef animals in Nawabshah district. A detailed questionnaire (Appendix-I) was prepared and pretested before using it to collect primary data.

The talukas and towns of district Nawabshah with large or main markets and livestock farms concentration around them, viz, Nawabshah, Sakrand, Daulatpur, Daur, Qazi Ahmed, Jamsahib and Bandhi were surveyed. 100 farmers (producers) and 60 marketing agencies including Traders, middlemen and final salers were interviewed for the collection of data.

The data were collected by interviewing them and information thus obtained was transferred to the primary tabulation, wherein data for earlier study area was classified, analyzed and interpreted to arrive at definite conclusions.

Table-I Sampling pattern from different talukas and towns of Nawabshah District.

Taluka & Towns of Nawabshah District	**Number of Large Ruminants**	
	Farms Surveyed	**Markets Surveyed**
Nawabshah	18	2
Sakrand	14	2
Daulatpur	18	1
Daur	11	1
Qazi Ahmed	12	2
Jam Sahib	17	1
Bandhi	10	1
TOTAL	**100**	**10**

TABLE-2 TOTAL SAMPLES INTERVIEWED AT NAWABSHAH DISTRICT.

Talukas & Towns of Nawabshah District	Farmers of Producers	Marketing Agencies					Grand Total
		Traders	Middle Men	Final Saler	Commission Agents	Total	
Nawabshah	18	3	3	3	3	12	30
Sakrand	14	2	2	2	2	8	22
Daulatpur	18	2	2	2	2	8	26
Daur	11	2	2	2	2	8	19
Qazi Ahmed	12	2	2	2	2	8	20
Jam Sahib	17	2	2	2	2	8	25
Bandhi	10	2	2	2	2	8	18
Total	**100**	**15**	**15**	**15**	**15**	**60**	**160**

The information regarding production patterns, literacy rate, marital status of producer, farm size, structure of farm production and marketing cost, was obtained from the producers involved in the business.

METHOD OF ANALYSIS:

The data so collected were subjected to analysis by using various formulae.

The following formulae were applied to compute the parameters related to market efficiencies.

1. Price spread: were computed after Acharya and Agarwal (1970).

Ps = Pr – Pp
Ps = Denotes price spread
Pr = Stands for price received
Pp = Symbolized price paid.

2. Estimation of marketing margins was done as suggested by Shepherd (1962).

Mm = (Am x 100) ÷ SP
Mm = Denotes price margin
Am = Represents absolute margin
Sp = Represents setting margin
Iw = Shows percentage.

3. Net Margins were calculated according Qureshi (1974).

Nm = Am - Mc
Nm = Denotes net margin
Am = Shows absolute margins
Mp = Stands for marketing

4. Estimation of marketing margins was done as suggested by Shepherd (1962).

MP = (Am x 100) ÷ Pp
MP = Shows markup
Am = Stand for absolute margins
Pp = Symbolizes price paid
100 = Denotes percentage

5. Breakdown of Consumer's rupee was done according to Qureshi (1974).

Bdcr = Nm ÷ Pp
Bdcr = Denotes break down of consumer's rupee.
Nm = Stand for net margins
Rp = Shows retail price

6. Cost benefit ratio was computed by the method suggested by Siddique et al. (1983).

Cbr = Nr ÷ Tc
Cbr = Represents cost benefit Ratio
Nr = Stands for net returns
Tc = Denotes the cost

IV- RESULTS AND DISCUSSION

Production and marketing are closely related with each other, in the sense that, the production creates the things and making adds to them (lssni,1992). The present study was therefore, carried out to assess the production as well as marketing pattern of large ruminants in Nawabshah district.

PRODUCTION PATTERNS:

Large ruminants are found throughout Pakistan, but the production pattern of these differs from one area to another. In the present study this was studied by interviewing the farmers (producers) at different farms of Nawabshah district. The information so collected from them, is interpreted under the following heading.

GENERAL INFORMATION:
Education of farmers (producers)

A sound technical knowledge on production pattern, and marketing operation with new development introduction in it, is necessary for recovering proper benefits. This cannot be achieved, until farmers are not properly educated. The literacy rate of large ruminants owners was student at selected farms of Nawabshah district which below:

Literacy rate of farmers(producers)

The rate regarding literacy rate of farmer or producer are summarized in Table-3. The results demonstrated that out of 100 farmers (Producers) 30.58 farmer were literate while rest of 69.42 percent was illiterate. However, according to the 1981 population census the literacy rate was 26.2 percent. This shows that the literacy rate was somewhat inclined towards large ruminants farming, though it was still dominated by illiterate farmers.

Table 3 Education level of large ruminants farmers at various places of Nawabshah District.

Places of Farm	Number of farmers			Percentage		
	Literate	Illiterate	Total	Literate	Illiterate	Total
Nawabshah	8	10	18	44.44	55.56	100.00
Sakrand	6	8	14	42.86	57.14	100.00
Daulatpur	5	13	18	27.78	72.22	100.00
Daur	4	7	11	36.36	63.64	100.00
Qazi Ahmed	3	9	12	25.00	75.00	100.00
Jam Sahib	3	14	17	17.65	82.35	100.00
Bandhi	2	8	10	20.00	80.00	100.00
Total	**31**	**69**	**100**	**Av.30.58**	**Av.69.42**	**100.00**

The results further indicated to the highest rate of literacy among the farmers was at Nawabshah (44.44%) and lowest at Jamsahib (17.65%).

MARITAL STATUS OF THE FARMER (PRODUCER):

The results on marital status of the famers are presented in Table-4. It may be seen from the results that out of 100 farmers, the majority 73.09 percent were married whereas rest (26.91%) were unmarried.

TABLE-4 MARITAL STATUS OF THE LARGE RUMINANTS AT VARIOUS PLACES OF NAWABSHAH DISTRICT.

Places of Farm	Number of farmers			Percentage	
	Married	Un-married	Total	Married	Un-married
Nawabshah	13	5	18	72.22	27.78
Sakrand	8	6	14	57.14	42.86
Daulatpur	13	5	18	72.22	27.78
Daur	8	3	11	72.73	27.27
Qazi Ahmed	9	3	12	75.00	25.00
Jam Sahib	14	3	17	82.35	17.65
Bandhi	8	2	10	80.00	20.00
Total	**73**	**27**	**100**	**Av.73.09**	**Av.26.91**

NATURE OF THE FARMERS (PRODUCER):

Nature of the farmers (Producer) was tabulated and it was found that all types of farmers i.e. tenant farmers (Agriculture farmers) large ruminant breeders (landless owners) and others; which includes Zamindars and Backyard farmers, were engaged in large ruminant farming. The data shown in Table-5 depicted that amongst the total 100 farmers 55.97 percent were large ruminants breeders, and 26.28 percent were agriculture farmers (Tenants), while other (Zamindars and Backyard farmers) were 17.74 percent. These figures denoted that the large ruminant breeders (Farmers) were in greater number, while other (Zamindars and Backyard farmers) were in trace.

TABLE-5 CATEGORY OF LARGE RUMINANTS FARMERS (PRODUCERS) AT VARIOUS PLACES OF NAWABSHAH DISTRICT.

PLACE OF FARM	TYPES						TOTAL
	Large Ruminant Breeders		Agriculture Farms		Others		
	No.	%	No.	%	No.	%	
Nawabshah	12	66.67	4	22.22	2	11.11	18
Sakrand	8	57.14	2	14.29	4	28.57	14
Daulatpur	10	55.56	6	33.33	2	11.11	18
Daur	7	63.64	3	27.27	1	9.09	11
Qazi Ahmed	6	50.00	4	33.33	2	16.67	12
Jam Sahib	10	58.82	4	23.53	3	17.65	17
Bandhi	4	40.00	3	30.00	3	30.00	10
TOTAL	**57**	**55.97**	**26**	**Av.26.28**	**17**	**Av.17.74**	**100**

STRUCTURE OF THE FARM:

The observation shown in Table-6 reveals that the farmers (Producers) have either open or shaded waras for housing of their animals. It was noted that our of total 100 farms. 57 (58.37%) were in open farm and built up as katcha waras which have only surrounding boundaries of crude thrine wood and (13 (12.48%) were shaded, pacca bricks. There results demonstrates that amongst the total farmers, half of the farmers kept their animals in katcha waras which have only surrounding boundaries of crude thrine wood.

TABLE-6 STRUCTURE OF THE FARM FOR LARGE RUMINANTS AT VARIOUS PLACES OF NAWABSHAH DISTRICT.

Place of the Farm	Open Katcha Wara		SHADED						Grand Total
			Katcha Thatched Wara		Semi Pacca		Total		
	No.	%	No.	%	No.	%	No.	%	
Nawabshah	7	38.89	8	44.44	5	27.78	13	72.22	18
Sakrand	9	64.29	4	28.57	1	7.14	5	35.71	14
Daulatpur	10	55.56	6	33.33	2	11.11	8	44.44	18
Daur	8	72.73	2	18.18	1	9.09	3	27.27	11
Qazi Ahmed	7	58.33	3	25.00	2	16.67	5	41.67	12
Jam Sahib	10	58.82	6	35.29	1	5.59	7	41.18	17
Bandhi	6	60.00	3	30.00	1	10.00	4	40.00	10
TOTAL	**57**	**Av.58.37**	**32**	**Av.30.69**	**13**	**Av.12.48**	**45**	**Av.43.21**	**100**

CATEGORY OR TYPE OF FARMS:

According to the data presented in Table-7 indicated that the farms were categorized by buffalo farms and cattle farms of the total 100 farms, 64.87 percent were buffalo farms, and rest 35.13 percent were cattle farms.

TABLE-7 LARGE RUMINANTS FARMS TYPES CATEGORIZED IN NAWABSHAH DISTRICT.

PLACE OF FARM	TYPE OF FARMS				Grand Total
	Buffalo Farms		Cattle Farms		
	No.	**%**	**No.**	**%**	
Nawabshah	12	66.66	6	33.33	18
Sakrand	10	71.43	4	28.57	14
Daulatpur	12	66.66	6	33.33	18
Daur	6	54.55	5	45.45	11
Qazi Ahmed	7	58.33	5	41.66	12
Jam Sahib	13	76.47	4	23.53	17
Bandhi	6	60.00	4	40.00	10
TOTAL	**66**	**64.87**	**34**	**35.13**	**100**

SIZE OF LARGE RUMINANTS FARMS

The information pertaining to size of large ruminant farms is displayed in the Table-8. It can be seen from the results that average area for buffalo farm was 1519.14 Sq. feet and 650 square feet were for cattle farm.

TABLE-8 AVERAGE AREA OF LARGE RUMINANTS FARMS AT VARIOUS PLACED OF NAWABSHAH DISTRICT.

Place of Farm	Buffalo Farm Sq. Ft.	Av. No. of Animals/ farm	Area/ animal Sq.ft.	Cattle Farm Sq.ft.	Av. No. of Animals/ farm	Area/ animal Sq.ft.
Nawabshah	2400	40	60	600	12	50
Sakrand	1750	25	70	600	10	60
Daulatpur	1400	20	70	840	14	60
Daur	900	15	60	650	13	50
Qazi Ahmed	1496	22	68	540	10	54
Jam Sahib	1260	18	70	720	12	60
Bandhi	1428	21	68	600	10	60
TOTAL	**1519.14**	**23**	**66.57**	**650**	**11.57**	**56.29**

COST OF PRODUCTION

The data from farmers (producers) under study at Nawabshah District were gathered regarding per animal cost of production per year, i.e. for fixed cost, recurring cost and marketing cost. With the help of such data, cost of production per animal per year as paid by farmers was calculated. Table-9 reveals that the fixed expenditure incurred by the farmers on their farms, which indicated that per animal per year average fixed cost was Rs.16869.57 on buffalo. However, per animal per year average recurring cost shown in Table-10 was Rs.2608.70 on buffalo and Rs.2525 on cattle. Beside he had to pay marketing cost, when his animals were proceed for selling to the market as displayed in Table-11 the farmers (Producers) spent Rs.115.00 on average as marketing cost of which Rs.75.00 (65.22%) was miscellaneous charges Rs.25.00 (21.74%) as transportation charges, Rs,5.00 (4.35%) on octroi tax and Rs.10.00 (8.70%) as Munshina. Total Rs.99.00 on an average as marketing cost. Among their miscellaneous charges was Rs.60.00 (60.61%), transportation charges were Rs.24 (24.24%) Rs.5.00 (5.05%) as octroi tax and Rs.10.00 (10.10%) as Munshina.

TABLE-9 AVERAGE FIXED COST OF FARMERS PRODUCERS ON LARGE RUMINANTS IN NAWABSHAH DISTRICT.

Kind of Farms	Kind of animals	Av. Cost of animals/ farm	Depreciative value of		Av. Total Cost/ farms year Rs.	Cost Animal	
			Shads Rs.	Equipments Rs.		Buffalo Rs.	Cattle Rs.
Buffalo Farm	Buffalo	368000	12000	8000	388,000	16869.57	-
Cattle Farm	Cattle	120000	4000	2000	126,000	-	10500
Per Animal Cost Per Year	-	-	-	-	-	16859.57	10500

TABLE-9 AVERAGE RECURRING COST OF FARMERS PRODUCERS ON LARGE RUMINANTS IN NAWABSHAH DISTRICT.

Kind of Farms	Kind of Animals	COST					Total	Per Animal	
		Labour	Fodder	Electricity	Watering	Medicine		Buffalo	Cattle
Buffalo Farm	Buffalo	35000	18000	3000	2000	2000	60000	2608.70	-
Cattle Farm	Cattle	20000	6000	2500	1000	800	30300	-	2525

TABLE-11 MARKETING COST OF FARMERS (PRODUCERS) ON LARGE RUMINANTS IN NAWABSHAH DISTRICT.

Marketing Cost	Buffalo		Cattle	
	Rs.	Percent	Rs.	Percent
Munshina	10.00	8.70	10.00	10.10
Octroi Tax	5.00	4.35	5.00	5.05
Transportation	25.00	21.74	24.00	24.24
Miscellaneous	75.00	65.22	60.00	60.61
TOTAL	**115.00**	**100.00**	**99.00**	**100.00**

TOTAL EXPENDITURE OF FARMERS/PRODUCERS ON LARGE RUMINANTS:

The total per animal expenditure of a farmer (Producer) from farm to market calculated and is shown on Table-12. It may be observed that total expenditure on buffalo was Rs.17253.27 of which Rs.16869.57 incurred on fixed cost, Rs.268.70 was spent as recurring cost and Rs.115 as marketing cost. The fixed cost was the highest (97.98%) followed by recurring cost (1.56%) and the marketing cost (0.67%). However, cattle farmer incurred per animal Rs.13124.00 on total expenditure, which included fixed cost Rs.10500. (80.00%) recurring cost Rs.2525.00 (19.24%) and marketing cost Rs.99.00 (0.75%).

TABLE-12 TOTAL EXPENDITURE OF FARMERS/PRODUCERS ON LARGE RUMINANTS IN NAWABSHAH DISTRICT.

Expenditure	Buffalo	Percent	Cattle	Percent
Fixed Cost	16869.57	97.78	10500.00	80.00
Recurring Cost	268.70	1.56	2525.00	19.24
Marketing Cost	115.00	0.67	99.00	0.75
Total	**17253.27**	**100**	**13124**	**100**

SALE PROCEEDS OF FARMERS (PRODUCERS) ON LARGE RUMINANTS:

Sale proceed of farmer presented in Table-13 depicted that the farmer earned income from the sale of animals, sale of milk and sale of manure. The farmer (Producer) of buffalo received per year a total sum of Rs. 18907.00 per animal

TABLE-27 BREAKDOWN OF CONSUMER'S RUPEE FOR BUFFALO AND CATTLE (RS.)

Category	Margin Agencies	Absolute Margin	Breakdown of Consumer's Rupee
Buffalo	Producer	18566.93	89.58
	Trader	872.93	1.80
	Middleman	937.80	4.52
	Final Seller	850.00	4.100
	Retail Price	20727.66	100.00
Cattle	Producer	14684.14	86.27
	Trader	711.03	4.18
	Middleman	801.40	4.71
	Final Seller	825.00	4.85
	Retail Price	17021.57	100.00

COSTBENEFIT RATIO ON LARGE RUMINANTS

Cost benefit ratio is basically a very simple technique for comparing the cost with the benefits. It is widely used to examine the farm efficiency.

Cost benefit ratio calculated in this study is summarized in Table-28. The results reveals that on one rupee investment for buffalo, the middleman pocked the highest benefit i.e. Rs.7.056, whereas producer received the lowest i.e. only 0.096. However, final saler earned Rs.6.758 and trader Rs.2.528 as compared to the cost of Rs.1.00.

It was further found that in case of cattle, final saler earned the maximum (Rs.7.462) profit and producer received minimum Rs.0.64 on 1.00 rupee expenditure, while trader and middleman earned in the proportion of ratio 1:6.514 and 1:7.462 respectively.

TABLE-28 COST BENEFIT RATIO ON LARGE RUMINANTS FOR VARIOUS FUNCTIONARIES IN NAWABSHAH DISTRICT

Agencies	Buffalo			Cattle		
	Net return X	Expend item	Cost benefit ratio X+Y=Z	Net return X	Expend-item Y	Cost benefit Ratio X+Y=Z
Producer	1653.73	17253.27	1:0.096	1392.67	13124.00	1:0.106
Trader	267.21	105.72	1:2.528	615.53	94.50	1:6.514
Middleman	821.40	116.40	1:7.056	700.70	100.70	1:6.958
Final saler	724.75	107.25	1:6.758	727.50	97.50	1:7.462

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATION

SUMMARY

Studies were conducted on production and marketing pattern of large ruminants at Nawabshah district during the year 1997-98. Of total producers and 60 traders, middleman, final saler and commission agent were surveyed. The study revealed that among 100 producers 30.58 percent were literate and 69.42 percent were illiterate. The majority (73.09%) of them were married and rest (26.91%) of them were unmarried. They either support their family subsistence or invest on their own business. These producers were categorized as large ruminant breeders (65.45%) agriculture farmers (Tenants) (26.28%) or other (17.74%). They have either open (58.37%), or sheded wara or sheds (43.21%) for housing their animals, among sheded waras (33.72%) were ketch ware with part those thatched and (12.48%) were semi pace. The farms were categorized as buffalo farms (64.87%) and cattle farms (37.95%), had an average area of 1519.14 sq.ft. and 650sq. feet respectively. The average numbe of animal were 23 buffalo and 12 cattle/farm. The producer incurred average fixed cost Rs.16869.57 per buffalo and Rs.105000 per cattle. The recurring cost was averagely Rs.2608.70 per Buffalo &Rs. 2525 per cattle. He had also to pay marketing cost, where his animals were processed for selling to market, which was Rs.115 for buffalo and Rs.99 for cattle. The total expenditure incurred on buffalo was Rs.17253.27 per buffalo and Rs.13124 per cattle. The sale process of producer were Rs.18907 for buffalo and Rs.14516.67 for cattle per year. The producer received net margin of Rs.1653.73 from sale of buffalo and Rs.1392.67 from sale of cattle respectively.

The trade pattern of large, ruminates were student at seven market of District Nawabshah, of which four were performed on weekly basis, two were permanent and one was monthly basis. The sale and purchase of animal was being done in these market by direct negotiation. In the same case commission agents also negotiate of the price. The animal were sold on the basis of price per head. The marketing agencies involved in the trade were found as trader, middleman, final saler and commission agent. The graders handled total of animal per year averagel. Of which 247.86 were buffalo and 267.14 were cattle. Middleman handled 641.43 of which 288.57

were buffalo and 252.86 were cattle. While final saler handled 590 animal per year of which 305.71 were buffalo and 284.29 were cattle.

The trader earned Rs.372.93 as absolute margin from price received Rs.18939.66 on buffalo. Middleman earned Rs.937.80 from the sale price of Rs.19877.66 amd final saler earned Rs.850.00 from the sale of animal costing Rs.20727.66. however, absolute margin earned by trader on cattle was rs.711.03 middleman Rs.801.40 and final saler Rs.825.00 per animal basis.

The middleman earned the maximum markup percentage of 4.95 percent for buffalo and 5.21 for cattle. The final saler earned the markup 4.28 and 5.09 percent for buffalo and cattle.

The price paid per buffalo by consumer was Rs.20727.66 being shared to produce 89.58 percent, trader 1.8 percent, middleman 4.52 percent and final saler 4.10 percent. While expenditure of consumer paid on cattle was Rs.17021.57 being earned as 86.27 percent by producer 4.18 percent by trader, 4.17 percent by middleman and 4.85 percent by final saler.

On one rupee expenditure for buffalo, the middleman earned the highest benefit Rs.7.056, where the producer earns the lowest 0.096, the final saler Rs.6.758 and trader Rs.2.528. Whereas in case of cattle, the final saler received the maximum Rs.7.462 and the producer, the minimum 0.106, while trader and middleman earned Rs.6.958 and 6.514 respectively as compared to marketing cost Rs.1.00

Conclusion:

It may be concluded that majority of farmers/ producers were substantially illiterate and married. They either support their families or earned for their own business. The producers, (Farmers) earned the net profit Rs.1653.73 and Rs.1392.67 from the total sale proceed of Rs.18,907.00 and Rs.14,516.67 for buffalo and cattle respectively, as compared to the cost on one rupee invested, he earns the minimum benefit i.e. Rs.0.096 and 0.106 for buffalo and cattle respectively. The markets were unplanned, unorganized and lacking in physical facilities. The producers, who occasionally brought an animal to market might compelled to wait therefore a saler might take the animal home again, if necessary.

The share of producers in each consumer's rupee spent for cattle is 89.58 percent for buffalo including his production and marketing cost, the share of trader is 1.80 percent of middleman 4.52 percent and final saler 4.10 percent. While in case of cattle it was shared 86.27 percent for producer including his production and marketing cost, 4.18 percent for trader 4.71 percent for middleman and 4.85 percent for final saler. The price differentiates result in under payment to the large ruminants producers which does not reflect consumers desires accurately to producers. The consumers satisfaction and producers return are not maximized.

RECOMMENDATIONS:

1. Livestock markets should be organized on scientific lines.
2. Proper facilities for feeding, watering and residence for livestock and livestock owner be provided within market premises on subsidized rates.
3. Farm to market roads be constructed so as to provide on easy approach to markets for livestock producers.
4. Adult literacy programme be expended so that Livestock owners may get scientific acknowledge regarding livestock production & marketing.
5. Weighing system may be introduced in livestock markets to assess real price value on the basis of live weight.
6. Farmers may be given short training in livestock marketing.

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