

RESEARCH ARTICLE

Marketing pattern of Murrah buffaloes among dairy farmers affected by Integrated Murrah Development Scheme of Haryana

Y.S. Jadoun, S.K. Jha, Pragya Bhadauria
and Rajiv Kale

Received : July 2014 / Accepted : November 2014

Abstract Haryana is the home-tract of one of the best buffalo breeds of the world i.e. 'Murrah'. There is a great demand of this high yielding elite breed not only from within but outside the country. The present study investigates the existing status of Murrah buffalo marketing pattern in Haryana. It was found that majority of the beneficiaries (78.75%) and non-beneficiaries (65.63%) decided to purchase whereas, 75.00% beneficiaries and 65.63% non-beneficiaries decided to sell the buffaloes by owners themselves. The preferred place of marketing of buffalo was village itself. Whereas preferred season of sell or purchase was winter. Dairy characteristic mainly milk yield considered as major criteria of selection of Murrah buffalo owner during purchase. Majority of the beneficiaries and non-beneficiaries were interested in recording 2-3 milking before purchasing the Murrah buffaloes. It was also evident that the respondents were practicing the various improved identification and selection practices during sale and purchase to a greater extent, but there is a need to emphasize upon the buffalo keepers to veterinary check-up practices to ensure the sale and purchase of healthy buffaloes.

Keywords : Murrah, sell, purchase, criteria for purchasing, reasons for selling

Y.S. Jadoun(✉), S.K. Jha, Pragya Bhadauria and Rajiv Kale
Principal Scientist, Division of Dairy Extension, NDRI, Karnal-132001 (Haryana)
Scientist, Central Avian Research Institute, Izzatnagar, Bareilly-243122 (U.P)
Scientist, Agricultural Extension, Zonal Project Directorate, Zone-VI, Jodhpur- 342005 Rajasthan

Y.S. Jadoun
Ph.D. Scholar, Division of Dairy Extension, National Dairy Research Institute, Karnal-132001, Haryana, India.
Email: yogivet2248@gmail.com

Introduction

Haryana holds a special place in milk production and known as the 'Milk Pail' of the country. Around 80% of the state milk comes from buffaloes alone. The state is home-tract of one of the best buffalo breeds of the world i.e. 'Murrah' which has also been recognized to be the animal of the 21st Century. Murrah buffaloes are great milk producers with high fat content in addition to being efficient feed converters even when fed on poor quality roughages. The germplasm of such well-defined breeds constitute valuable genetic resources which has been conserved on priority basis by 'Integrated Murrah Development Scheme' (IMDS) implemented in the state. There is also a great demand of this high yielding elite breed not only from within but outside the country like Australia, Canada and the US. The state earned revenue of Rs. 200 crore every year by exporting the Murrah buffaloes (Financial Express, 2013). Most of the states procure breeding stock from Haryana for upgradation of their low producing buffaloes. 18th Livestock census (2007) revealed that there were 59,53,000 buffaloes in Haryana, which included large share of Murrah buffaloes. There are numerous agencies and middlemen involved in the selling, purchasing and transportation of Murrah buffaloes. Singh and Patel (1988) studied that, different types of criteria like, decision regarding sale/purchasing of Murrah buffaloes, common sources, channels, seasons of marketing of Murrah buffaloes, reasons considered while sale/purchasing of Murrah buffaloes etc were considered by most of the buyer. In Haryana, very few studies have been carried out regarding marketing pattern of Murrah buffaloes; these were limited in their scope and analysis (Singh, 1997). The present study was planned to investigate the existing status of Murrah buffalo marketing in Haryana and analyzes the sell and purchasing pattern of beneficiaries and non-beneficiaries of IMDS scheme in Murrah buffalo marketing.

Materials and Methods

Haryana state comprises 21 district divided into the four divisions. Four districts namely, Kurukshetra, Mahendragarh, Bhiwani, Jhajjar were selected, from each of the four divisions of the state, purposively. Out of four districts, two blocks were selected from each district. Further, four villages were selected, purposively, from each block. Thus, a total of 32 villages from 8 blocks of 4 districts of Haryana state were the locale of study. In order to study the marketing pattern of Murrah buffalos, five beneficiary Murrah owners and five non beneficiary Murrah owners of IMDS from each village were selected, thereby making the sample size of 320 respondents (160 beneficiaries and 160 non-beneficiaries of IMDS). The data were collected by using pre-tested structured personal interview schedule. The data collected were coded, compiled and analyzed using simple descriptive statistics viz. frequency and percentage.

Results and Discussion

Prevalent marketing pattern of Murrah buffaloes

Haryana's trade in Murrah buffaloes lends undoubtedly a great economic fillip to rural breeders of Murrah buffalo. Marketing pattern generally refers to the sale and purchase pattern of different categories of Murrah buffaloes (milch, dry, pregnant heifers, male calves) from different sources (villages, animal fair, directly from owners, middle men etc.) in different seasons, as prevalent in the study area. In buffalo enterprise selection and culling is regular practices performed by all owners. It is utmost important to sort out the uneconomic, unproductive stock and maintain and propagate the healthy and productive buffaloes. Most of the buffalo keepers try to retain the good quality buffalo and sell the unproductive or low yielding buffaloes. Considering the above facts, the various factors related to marketing pattern of Murrah Buffaloes were studied.

Purchase pattern of Murrah buffaloes

Decision regarding purchasing of Murrah buffaloes

With regard to purchasing patterns of these buffalo owners, the data shown in the Table 1 revealed that majority of the beneficiaries (78.75%) and non-beneficiaries (65.63%) preferred to purchase the buffaloes by themselves, whereas, 18.75% beneficiaries and 30.00% non-beneficiaries purchased their buffaloes with the help of other family members. However, in 2.5% of the sampled households of beneficiaries and 4.37% non-beneficiaries, the decision regarding purchasing of buffaloes were taken by the relatives of the respondents. The reason behind this is the reliability and precision regarding purchasing of the buffaloes was more when dairy farmer's

purchased their buffaloes by themselves.

Common sources of purchasing Murrah buffaloes

The most common sources of purchasing Murrah buffaloes mainly depends on the time and place when purchase is needed; accordingly farmers prefer the economical and viable source of purchase. The trend of purchase shown in the Table-1 revealed that majority of beneficiaries (63.13%) and non-beneficiaries (58.13%) preferred to purchase their buffaloes from the nearby villages whereas, about 22.50% beneficiaries and 30.62% non-beneficiaries are interested to purchase their buffaloes from cattle fair, dairy mela, kisan mela etc by government and public agencies as purchasing remain economically beneficial from these places. However, very few (14.38%) beneficiaries and (11.25%) non-beneficiaries purchased their buffaloes from buffalo markets.

Channels of purchasing Murrah buffaloes

With regard to channels of purchasing of Murrah buffaloes nearly three fourth of beneficiaries (74.38%) and 59.38% non-beneficiaries purchased their buffaloes directly from dairy farmers. Whereas, 20% beneficiaries and 33.75% non-beneficiaries purchased their buffaloes through middleman like traders, brokers etc. There was provision of Haryana trader's representative which facilitates in selection, arranging supply, purchasing and transportation facilities for the buyers. These traders's are mostly preferred by inter-state movement to Andhra-Pradesh, Maharashtra etc. Kumar *et al*, (2010) also identified major channels of Murrah buffalo selling through trader's and directly from the farmers in Haryana. However, very few (5.62%) beneficiaries and (6.88%) non-beneficiaries purchased their buffaloes from other sources like, livestock farms of National Dairy Research Institute (NDRI) Karnal, Haryana Agriculture University (HAU) Hisar, Central Institute for Research on Buffaloes (CIRB) Hisar. Moreover, these channels were mostly preferred by government agencies, commercial dairy farmers and private dairy farms etc.

Seasons of purchasing Murrah buffaloes

Seasons of purchasing of their buffaloes as depicted in Table - 1 shows that the most of the beneficiaries (69.37%) and (61.88%) non-beneficiaries purchased their buffaloes in winter season (October-February). The high purchasing of these buffaloes in this period is attributed to the preference of the traders to purchase fresh calvers in these months when the price of the milk is high and supply is comparatively low and transportation to other cities by the traders is also easy during this period. While, around one fourth of beneficiaries (25.00%) and (27.50%) non-beneficiaries purchased their buffaloes in rainy season (July-September) which mainly coincide with the claving of Murrah buffaloes in Haryana.

Table 1 Purchase pattern of Murrah buffaloes in the research locale

A. Purchase pattern of Murrah buffaloes				
Dimensions		Items	B (n = 160)	NB (n = 160)
1.	Decision regarding purchasing of Murrah buffaloes	a Self	126 (78.75)	105 (65.63)
		b Other family members	30 (18.75)	48 (30.00)
		c Relatives	4 (02.50)	7 (04.37)
2.	Common sources of purchasing of Murrah buffaloes	a Village	101 (63.13)	93 (58.13)
		b Cattle fair / dairy mela / kishan mela	36 (22.50)	49 (30.62)
		c Buffalo market	23 (14.38)	18 (11.25)
3.	Channels of purchasing of Murrah buffaloes	a Direct from dairy farmers	119 (74.38)	95 (59.38)
		b Through traders/middleman	32 (20.00)	54 (33.75)
		c Other sources	9 (05.62)	11 (06.88)
4.	Seasons of purchasing of Murrah buffaloes	a Rainy season	40 (25.00)	44 (27.50)
		b Winter season	111 (69.37)	99 (61.88)
		c Summer season	9 (05.63)	17 (10.62)
5.	Aspects/ specific points considered while purchasing of Murrah buffaloes	a Estimating age of buffaloes	128 (80.00)	94 (58.35)
		b Considering dairy characteristics	123 (76.87)	105 (65.63)
		c Purchasing buffaloes which are free from common vices & defects	134 (83.75)	122 (76.25)
		d Recording 2-3 milking before purchasing	145 (90.63)	120 (75.00)
		e Avoiding long journeys of down calvers & just after calving	149 (93.13)	149 (73.75)
		f Purchasing buffaloes after veterinary check-up	85 (53.13)	57 (35.63)
		g Horns & breed characteristics	129 (80.63)	100 (62.50)
		h Milk yield	150 (93.75)	152 (95.00)
		i No. of lactation	126 (78.75)	99 (61.88)
		j Calf at foot	101 (63.13)	110 (68.75)
		k Price	85 (53.13)	107 (66.88)

Table 2 Sale pattern of Murrah buffaloes in the research locale

B. Sale pattern of Murrah buffaloes				
Dimensions		Items	B (n = 160)	NB (n = 160)
1.	Decision regarding sell of Murrah buffaloes	a Self	120 (75.00)	105 (65.63)
		b Other family members	36 (22.50)	45 (28.12)
		c Relatives	4 (02.50)	10 (06.25)
2.	Places of sell of Murrah buffaloes	a Village	85 (53.13)	90 (56.25)
		b Cattle fair / dairy mela / kishan mela	20 (12.50)	44 (27.50)
		c Buffalo market	25 (15.63)	17 (10.63)
		d Farmers of other states/ area	30 (18.75)	9 (05.63)
3.	Channels of sell of Murrah buffaloes	a Direct to purchaser	129 (80.63)	99 (61.87)
		b Through traders/middleman	25 (15.62)	53 (33.13)
		c Others	6 (03.75)	8 (05.00)
4.	Seasons of sell of Murrah buffaloes	a Rainy season	39 (24.38)	54 (33.75)
		b Winter season	115 (71.87)	91 (56.87)
		c Summer season	6 (03.75)	15 (09.38)
5.	Reasons for sell of Murrah buffaloes	a Ill health of the animals	6 (03.75)	10 (06.25)
		b Old age of the animals	9 (05.63)	15 (19.38)
		c Physical defects	31 (19.37)	26 (16.25)
		d Financial stress	5 (03.13)	33 (20.63)
		e Attractive price offer due to IMDS	85 (53.13)	47 (29.38)
		f Low productivity	26 (16.25)	41 (25.63)
		g Compelled by relatives	10 (06.25)	16 (10.00)
		h Depreciation fear due to advance age of animal	18 (11.25)	32 (20.00)
		j Non availability of good quality feed and fodder	5 (03.12)	25 (15.63)
		k Any other like flood/any calamity/ draught etc.	2 (1.25)	27 (16.87)

However, the purchasing of buffalo during summer (March-June) was found very low i.e. by 05.63% beneficiaries and 10.62% non-beneficiaries, because fresh calvers are not readily available and their price is relatively very high, hence purchasing of buffaloes during this period was found very less. Present findings are in consonance with the earlier finding of Singh and Patel (1981), Singh (1988).

Criteria for purchasing Murrah buffaloes

Proper identification and selection of buffalo during purchasing is the foremost important step to be adopted in economic dairy farming. The important aspects considered while purchasing of Murrah buffaloes by the buffalo owners during their purchase was studied and presented in the table 1. Milk yield of the buffaloes was the major characteristic taken care by the buffalo keepers during purchase, an about 93.75% beneficiaries and 95.00% non-beneficiaries were purchase buffaloes after recording the milk yield. Majority of respondents i.e. 90.63% beneficiaries and 75.00% non-beneficiaries were interested in recording 2-3 milking before purchasing of buffaloes. These finding is in line with the findings of Singh (1979). Whereas, 93.13% beneficiaries and 73.75% non-beneficiaries were avoiding long journeys of down calvers and just after calving during purchasing. About 83.75% beneficiaries and 76.25% non-beneficiaries were purchased their buffaloes which were free from common vices and defects. It was found that among all the respondents about 80.00% beneficiaries and 58.34% non-beneficiaries were interested in the age of the buffaloes by observing the pattern of dentition criteria of selection of buffaloes. Dairy characteristics were also found to be important criteria for selection of Murrah buffaloes while purchasing by 76.87% the beneficiaries and 65.63% of non-beneficiaries. Moreover, it was discouraging to note that, a very few of beneficiaries (53.13%) and non-beneficiaries (35.63%) were purchased buffaloes which were undergone veterinary check-up prior to purchase. Present findings are in line with the earlier finding of Singh (1997).

The other dairy characteristic which was considered by buffalo owner during purchase, mainly includes horns and breed characters by 80.63% beneficiaries and 62.50% non-beneficiaries. Similarly, 78.75% beneficiaries and 61.88% non-beneficiaries were interested in the total number of lactation while purchasing of their Murrah buffaloes. Whereas, 63.13% beneficiaries and 68.75% non-beneficiaries preferred to purchase the buffaloes having calf at foot. Also, few beneficiaries (53.13%) and non-beneficiaries (66.88%) were also taking care of price of the buffaloes during their purchase. Although, it was found that the most of respondents attained a very high level of perfection regarding selection and assessing the price of buffaloes. It is very clear from the results that most of the respondents purchased their Murrah buffaloes considering more than one character and only after judicious selection. These results are in line with the findings of Singh (1997).

Sale pattern of Murrah buffaloes in the research locale

Decision regarding selling of Murrah buffaloes

The data shown in the table- 2 revealed that majority of the beneficiaries (75.00%) and non-beneficiaries (65.63%) prefer to sell the buffaloes by owner themselves, whereas, 22.50% beneficiaries and 28.12% non-beneficiaries sale their buffaloes with the help of other family members. However, in 2.5% of the sampled households of beneficiaries and 6.25% non-beneficiaries, the decision regarding sell of buffaloes were taken by the relatives of the respondents. The very thing behind this is the reliability and precision regarding sale of the buffaloes was more when dairy farmer's sale their buffaloes by themselves.

Common places for selling Murrah buffaloes

On observing the sale pattern of Murrah buffaloes to different places, the majority of (53.13%) of beneficiaries and (56.25%) of non-beneficiaries were interested to sell their buffaloes at village level itself. On the other hand 12.50% beneficiaries and 27.50% non-beneficiaries preferred selling their buffaloes in cattle fair, dairy mela and kisan mela etc. Buffalo market was preferred by very few respondents from beneficiaries (15.63%) and non-beneficiaries (10.63%) for selling. However, very few (18.75%) beneficiaries and (05.63%) non-beneficiaries were found to sell their buffaloes to other states.

Channels of selling Murrah buffaloes

With regard to channels of sale of Murrah buffaloes, majority of beneficiaries (80.63%) and non-beneficiaries (61.87%) were sold their buffaloes directly to the purchaser. Whereas, 15.62 per cent beneficiaries and 33.13 per cent non-beneficiaries sold through middleman like traders, brokers etc. However, very few beneficiaries (03.75%) and non-beneficiaries (05.00%) sold their buffaloes to other sources like, government livestock farms, commercial dairy farmers and private dairy farms etc. which is in contrast with the finding of Singh and Patel (1981).

Seasons of sell Murrah buffaloes

With respect to seasons of sell of buffaloes (Table -2) most of the beneficiaries (71.87%) and non-beneficiaries (56.87%) sold their buffaloes in winter season (October-February). The high sell of these buffaloes in this period is attributed to high demand and price for fresh calvers as the price of the milk is high as well as supply is comparatively low and transportation to other cities by the traders is also easy during this period. About 24.38% beneficiaries and 33.75% of non-beneficiaries sell their buffaloes in rainy season (July-September) which mainly coincide with the claving of Murrah

buffaloes in Haryana. Minimum percentages of buffaloes were sold during summer season (March-June) by (03.75%) beneficiaries and (09.38%) non-beneficiaries, because fresh calves are not readily available to sell during this period. Present findings are in consonance with the earlier findings of Singh and Patel (1981) and Singh (1988).

Reasons for sell of Murrah buffaloes

Respondents were asked about the reasons for sell of their buffaloes as depicted in table 2. Majority of (53.13%) beneficiaries and (29.38%) non-beneficiaries responded for the attractive price offer due to IMDS followed by other criteria like, ill health of the animals, old age of the animals, physical defects in the lactating buffaloes, financial stress, low productivity, compelled by relatives, depreciation fear due to advance age of animal, non availability of good quality feed and fodder and natural calamities like, flood, draught etc. These are some reasons which forced the farmers to sell their animals.

Conclusions

From the present study it can be concluded that Haryana is actively involved in Murrah buffalo marketing. Decision of

sell or purchase was dominantly taken by individual owner of Murrah. The activity of marketing was taken place mostly in the village itself. The major activities of marketing occurred during the winter season as the fresh calves are readily available during the period and seller get higher price for buffalo as well as buyers purchases for high milk price and demand. It was also evident that the respondents were practicing the various improved identification and selection practices during sale and purchase to a greater extent, but there is a need to emphasize upon the buffalo keepers to veterinary check-up practices to ensure the sale and purchase of healthy buffaloes.

References

- Anonymous (2013) Buffalo exports boom in Haryana. Financial Express, Chandigarh dated 21st Dec. 2013. Available at: <http://www.financialexpress.com/news/story/163690>
- Kumar S, Ramana DBV, Savitri VL, Dixit S, Kareemulla K, Rama Rao CA, Kumar A, Vijaya KB (2010) Supply chain and sustainability issues in inter state movement of Murrah buffaloes: A case of urban dairy farms in Andhra Pradesh. *Agricultural Economics Research Review* 23:563
- Livestock Census (2007) Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India.
- Singh H, Patel RK (1981) An economic study on buffalo price structure in Haryana. *Agricultural Marketing*, 24(1):31-33
- Singh H (1988) Marketing of buffaloes. *Indian J Ani Pro Manag* 4(3): 133-138