CONSTRAINTS OF BUFFALO FARMING IN KALLAKURICHI DISTRICT OF TAMIL NADU, INDIA

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ABSTRCT

A study was conducted to identify the constraints perceived by the buffalo farmers in Kallakurichi district of Tamil Nadu. For this study, data were collected from the randomly selected buffalo farmers by using a structured interview schedule. The present study indicated that the major constraints faced by buffalo dairy farmers were high cost of concentrates (63.82% Garrett score), followed by high capital investment in animal housing (53.64% Garrett score), Low conception rate (58.92% Garrett score) repeat breeding (60.20% Garrett score), lower milk price 64.34% Garrett score), Unavailability of credit facilities from government side (50.80% Garrett score), high cost involved in veterinary care (56.28% Garrett score) and reproductive disorders (48.70% Garrett score).

Keywords: *Bubalus bubalis*, buffaloes, buffalo farming, buffalo farmers, buffalo dairy, repeat breeding, India

INTRODUCTION

India is leading the world in terms of milk production since 1998 and produced 165.4 million tonnes of milk with a per capita availability of milk 335 g during 2016 to 2017. Buffalo shared about 49.2% of the total milk produced in India (Anonyms, 2018). Buffaloes not only contributed significantly to national milk pail of the country but also have great demand for meat owing to banning of cattle slaughter. they also efficiently utilize the poor-quality crop residues and convert to milk and meat as compared to cattle (El-serafy, 1991). Nealry half of the total milk produced in the country is contributed by the buffaloes. Buffalo plays vital role in the dairy industry of India. As on September 2018 NBAGR, listed 16 buffalo breeds under registered and recognized category (Sastry and Thomas, 2021). Milk yield of an average indigenous buffalo is three times more that of an indigenous cow. In India is having 57.83% of the world buffalo population which provide milk, meat and draught power so buffalo is considered

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as backbone of Indian rural economy (Anonymus, 2014). Inherent ability of buffalo to produce milk with high fat content over cow milk which fetches high price in market.

MATERIALS AND METHODS

The present survey was conducted by collecting data from the buffalo dairy farmers of Kallakurichi district of Tamil Nadu, India during 2020 to 2021. The respondents were selected through proportionate random sampling method in the study area. The data were collected by the personal interview method with the use of pre-tested interview schedule. Garett's ranking technique was followed to rank the constraints perceived by the buffalo dairy farmers. Constraints related to feeding, housing, breeding, organizational, milk production and health constraints were collected by using structured interview schedule.

RESULTS AND DISCUSSIONS

Feeding constraints

High cost of concentrates (63.82% Garrett score), fluctuation in concentrate feed cost (42.32% Garrett score), non-existent of grazing land (40.31% Garrett score) and shortage in green fodder (35.5% Garrett score) are the problem faced by the farmers in feeding management. These results are similar in line with the findings of Natchimuthu *et al.* (2002); Dabas *et al.* (2004); Patil *et al.* (2009); Tailor *et al.* (2012); Dhindsa *et al.* (2014); Rajadurai *et al.* (2018) who reported that high price for commercial feed, deficit of green fodder particularly during summer months and non-existent of land for green fodder cultivation were the major constraints faced by the

buffalo dairy farmers.

Housing constraints

From the result, it was found that majority of the dairy farmers did not provide proper housing facilities buffaloes because of their economic status (53.64% Garrett score score), un availability of land for fodder cultivation (44.46% Garrett score), high cost involved in construction (33.33% Garrett score) and inadequate knowledge on scientific housing (30.14% Garrett score) perceived in that order (Table 1). These results are similar to the findings of Balasubramanian (1995); Tailor *et al.* (2012); Rajadurai *et al.* (2018) who found that all the dairy farmers were facing the problems like high construction cost, lack of land for the construction of housing for the animals, low level of knowledge on scientific housing.

Breeding constraints

The present study revealed that repeat breeding (with a per cent Garrett score of 60.20) followed by less conception rate through artificial insemination (58.92% Garrett score score), non-availability of A.I. facility (36.32% Garrett score score) and non-availability breeding bull (28.92% Garrett score) are the constraints faced by the farmers in breeding management (Table 1). These results are in line with the findings of Ramkumar *et al.* (2004); Tailor *et al.* (2012); Dhindsa *et al.* (2014); Rajadurai *et al.* (2018) where reported repeat breeding, unavailability of breeding bull, less availability of artificial insemination facility for buffaloes and low conception rate through artificial insemination were the major breeding constraint in buffalo rearing.

Organizational constraints

In Organizational constraints, Low price

Table 1. Constraints perceived in buffalo farming (N = 60).

	% Garrett score	Rank within category	Overall rank
Feeding constraints			
High cost of concentrates.	63.82	1	3
Unavailability of community grazing land	40.31	3	13
Fluctuation in concentration feed cost	42.32	2	12
Shortage in green fodder	35.05	4	16
Inadequate knowledge about proper/ scientific feeding	31.92	5	18
Housing constraints			
High cost involved in construction of shed	33.33	3	17
Lack of space for construction	44.46	2	11
Inadequate knowledge on scientific housing management	30.14	4	19
Inability to provide proper housing due to their economic status	53.64	1	7
Breeding constraints			
Low conception rate	58.92	2	5
Unavailability of breeding bull	28.92	4	20
Repeat breeding	60.20	1	4
Unavailability of A.I. facility	36.32	3	15
Organisational constraints			
Lower price for milk	64.34	2	2
Delay in payment	46.64	3	10
Lack of loan facility	25.82	4	21
Unavailability of credit facilities from government institution.	50.80	1	8
Milk production constraints			
Low price for buffalo milk	69.59	1	1
Health constraints			
High cost of veterinary treatment.	56.28	1	6
Unavailability of timely veterinary services	38.48	3	14
Unavailability of veterinary hospitals	23.54	4	22
Reproductive disorders.	48.70	2	9

for milk (64.34% Garrett score) was ranked first and followed by unavailability of credit facilities from government institution (50.80% Garett score), delay in payment by the vendor (46.64% Garrett score) and lack of loan facility (25.82% Garrett score) were listed by the farmers (Table 1). These results are similar to that of Dabas *et al.* (2004); Patil *et al.* (2009); Rajadurai *et al.* (2018) who reported that delay in payment for milk, low price for milk and lack of loan facility from bank and government institutions as their constraints.

Milk production constraints

Low price for buffalo cow milk (69.59% Garrett score) was the major constraint. This finding is in line with the findings of Manoharan (2000); Dabas *et al.* (2004); Tailor *et al.* (2012); Dhindsa *et al.* (2014); Rajadurai *et al.* (2018) who found that lower price for buffalo milk was a major constraint faced by the farmers of different region.

Health constraints

High cost of veterinary services (56.28% Garrett score), reproductive disorders (48.70% Garrett score), Unavailability of timely veterinary services (38.48% Garett score) and in accessibility of veterinary hospitals (23.54% Garrett score) are health constraints as perceived by buffalo farmers of Kallakurichi district of Tamil Nadu (Table 1). This finding is line with the findings of Patil *et al.* (2009); Tailor *et al.* (2012); Rajadurai *et al.*, (2018) who found high cost for treatment, reproductive disorders and non-availability of veterinary services are the major constraints.

CONCLUSION

Lower milk price for milk is the main constraint and to overcome these issues, farmers should market their milk directly in the market and also go for value addition of milk. Preparation of concentrate feed in their own will minimize the cost involved in the purchase of concentrate feed. Scientific management in feeding and breeding will be helpful to overcome the reproduction problems faced by the dairy farmers. Construction of shed with locally available resources will reduce the cost involved in the construction of shed. From the government side, they should frame policies in such way to increase the procurement cost of buffalo milk, strengthen the veterinary health care facilities and sketch scheme to reduce the financial burdens by the buffalo farmers.

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