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AN ANALYSIS OF CONSTRAINTS FACED BY FARMERS IN REARING BUFFALOES IN TIRUPUR DISTRICT OF TAMIL NADU

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Abstract: The present study was conducted in Tirupur district of Tamil Nadu to identify the constraints faced by buffalo rearing farmers with a sample of 120 households and to suggest them suitable measures to overcome the constraints faced in buffalo rearing. The study revealed that the highest per cent of the buffalo rearing farmers (56.66%) belonged to old age above 45 years followed by middle aged category, 31-45 years (33.33%) and young age below 30 years (10.00 %) in Tirupur district. Buffaloes are being reared traditionally and formed a major source of income generation to the family. The education level of the buffalo rearing farmers were mainly primary level (40.00%) followed by secondary level (33.33%) and College level (11.66%). The family size was small (65.00%) followed by medium (31.66%) and large (3.33%). Since buffaloes are being reared traditionally, lack of awareness on scientific feeding methods such as treatment of poor quality straw (83.33%) was considered to be a major constraint followed by lack of knowledge about silage preparation (80.00%), good quality fodder crop seeds (56.66%) feed conversion ratio and balanced ration (51.66%). Preference of natural service in buffaloes over artificial insemination (51.66%) was the major constraint followed by low conception rate through artificial insemination (41.66%) and non availability of bulls (38.33%). Marketing of milk and cost of milk were ranked as the top most constraint (40.00%) in buffalo milk marketing.

Keywords: Buffaloes, Buffalo rearing farmers, Constraints.

INTRODUCTION

Dairy farming occupies a major role in contributing to the agricultural economy of India as milk is the largest agricultural commodity contributing to GDP. Dairying is an important source of subsidiary income to small/marginal farmers and agricultural labourers. Buffalo rearing increases the livelihood status of the farmers especially for the farm women and development of this sector is the potential path to rural prosperity (Kalash *et al.* 2009). Buffalo has inherent ability to produce milk with high fat content ranging from 6 to 8.5 per cent. Because of its higher milk fat contents, buffalo milk is preferred over cow milk and it fetches better price in the market (Khan *et. al.* 2010).

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Constraints are the circumstances or the causes which prohibit the dairy farmers from adoption of the improved management practices (Rathod *et al*. 2011). Constraints imply the problems or difficulties faced by dairy farmers while adopting day-to-day animal husbandry practices in their dairy enterprise. Constraints identification will help the planners and administrators in identifying the problems so that the loopholes, if any can be plugged. Thus, alleviating the constraints in scientific dairy management can definitely augment the profits (Sarita *et.al.* 2017). Therefore, the present study was undertaken to identify the constraints faced by buffalo rearing farmers in Tirupur district of Tamil Nadu and to suggest them suitable measures to overcome the constraints faced in buffalo rearing.

MATERIALS AND METHODS

The present study was carried out in the selected 7 blocks of Tirupur District of Tamil Nadu which are having highest buffalo population. From each blocks two villages were selected randomly. From Uthukuli, Avinashi, Dharapuram, Kangayam and Madathukulam blocks, ten livestock owners per village and from Kundadam and Tirupur blocks five livestock owners per village were selected randomly. Therefore the sample size of the study was 120 respondents. For collection of data, a pre designed interview schedule was prepared and finalized. The data was collected through personal interview technique from each of the selected respondents. The period of data collection was from March 2014 to October 2014. Data included age, literacy, household income, education, family size, land holding, feeding, breeding, milk production, productive and reproductive traits of buffalo. The data collected were statistically analyzed for frequency and percentage.

RESULTS AND DISCUSSION

Table 1: Socio- economic and socio –personal profile of the respondents

Parameters	Category	Total (n=120)	Percentage
Age	Young age (upto 30 years)	12	10.00
	Middle age (31 to 45 years)	40	33.33
	Old age (above 45 years)	68	56.66
Education	Illiterate	18	15.00
	Primary(1- 7^{th}std)	48	40.00
	Secondary (8- 12^{th}std)	40	33.33
	College (above 12^{th})	14	11.66
Family size	Small size (up to 4 members)	78	65.00
	Medium size (5-8 members)	38	31.66
	Large size (more than 8 members)	04	3.33
Land Holding	Landless (having no land)	12	10.00

size	Marginal farmer (≤ 2.5 acres)	20	16.66
	Small farmer (2.5 – 5 acres)	32	26.66
	Large farmer (> 5 acres)	56	46.66
Herd size	Small (1- 5 animals)	98	81.66
	Medium (6 – 10 animals)	08	6.66
	Large (11-15 animals)	06	5.00
	Very large (> 15 animals)	04	3.33

The socio- economic and socio –personal profile of the respondents were studied and the results are presented in Table 1. The study revealed that majority of the buffalo rearing farmers (56.66%) belonged to old age above 45 years followed by middle aged category between 31-45 years (33.33%) and young age below 30 years (10.00 %) in Tirupur district which indicates that buffaloes are being reared traditionally and formed a major source of income to the family. The education level of the buffalo rearing farmers were mainly primary level (40.00%) followed by secondary level (33.33%) and college level (11.66%) which is in accordance with that reported by Sarkar *et al.* (2013) The family size was predominantly small (65.00%) followed by medium (31.66%) and large (3.33%).

Further the study showed that 72 percent of the farmers were literates who had education from primary school to the college which suggests that the farmers can be made to adopt newer technologies to improve the buffalo population and production. The present study revealed that 10 per cent of the buffalo rearers were landless labourers. 16.66 and 26.66 per cent were small and marginal farmers and the herd size was small (81.66%) which is similar to the findings of Prajapati *et.al*. (2016).

Table 2

Constraints faced by buffalo rearing farmers of Tirupur district

Table 2.1: Feeding constraints faced by buffalo rearing farmers of Tirupur district

S.No	Category	Frequency (n=120)	Percentage	Rank
1.	Lack of awareness about treatment of poor quality straw/hay to improve its nutritive value	100	83.33	I
2.	Lack of knowledge about silage preparation	96	80.00	II
3.	Lack of awareness about good quality fodder crop seeds	68	56.66	III
4.	Lack of knowledge about feed conversion ratio and balanced ration	62	51.66	IV
5.	Non availability of sufficient green fodder throughout the year	54	45.00	V
6.	Cost of Feed and Fodder	32	26.66	VI

The feeding constraints faced by buffalo rearing farmers of Tirupur District were analysed and presented in Table 2.1. Since buffaloes are being reared traditionally, lack of awareness on scientific feeding methods such as treatment of poor quality straw (83.33%) was perceived as the major constraint followed by lack of knowledge and awareness about silage preparation (80.00%), good quality fodder crop seeds (56.66%) feed conversion ratio and balanced ration (51.66%).These findings are in close agreement with that of Rao (1987),Aulakh *et al.* (2010) and Munish Kumar (2015) whereas Rathod *et.al.* (2011) and Vimal Rajkumar *et. al.* (2017) reported that non availability of green fodder was the top ranked problem in buffalo feeding.

Table 2.2: Breeding constraints faced by buffalo rearing farmers of Tirupur district

S.No	Category	Frequency (n=120)	Percentage	Rank
1.	Preference of natural service in buffalo	62	51.66	I
2.	Low conception rate through artificial insemination	50	41.66	II
3.	Non availability of upgraded breeding bulls in villages	46	38.33	III
4.	Repeat breeding	24	20.00	IV
5.	Late maturity	22	18.33	V
6.	Silent heat and lack of knowledge of heat detection	20	16.66	VI
7.	Availability of Veterinary Services- Poor	20	16.66	VI

As far as breeding constraints are concerned, (Table 2.2). Preference of natural service in buffaloes over artificial insemination (51.66%) was the major constraint perceived by the farmers followed by low conception rate through artificial insemination (41.66%) and non availability of breeding bulls (38.33%). The results are in agreement with the findings of Kakoty and Sohal (1987), Pandit *et al.* (2001) and Munish Kumar, (2015).

Table 2.3: Marketing and other constraints faced by buffalo rearing farmers of Tirupur district

S.No	Category	Frequency (n=120)	Percentage	Rank
1.	Marketing of milk and cost of milk	48	40.00	I
2.	Calf death	24	20.00	II
3.	Cost of Buffalo	06	5.00	III

Table 2.3 shows that marketing of milk and cost of milk was ranked as the top constraint (40.00%). Jayalaxmi *et al.* (1997) also reported low price of milk as a major constraint. Verma, (2007) and Vimal rajkumar *et.al. (*2017) also reported that payments made in fractions are the major factors which led to the imperfect market situations and lower the income of the producers in the region. The marketing constraints affect the profit to the entrepreneurs adversely. Cost of milk production per litre in urban areas is relatively high in comparison to rural and semi-urban areas, which may be due to higher feed, labour and fixed costs. The profit was estimated higher in semi-urban than urban and rural areas (Dutt *et al.* 2009). Unlike indigenous cattle, the indigenous buffaloes cannot yield high amount of milk and meat, even they are provided with optimum environment and most of the farmers are rural small holders who have traditionally integrated their livestock with crop production (Saadullah, 2012). Calf death was reported by 20 per cent of the respondents as a constraint in calf rearing and Khan *et. al.* (2007) reported that mortality rate was statistically influenced by age and found that mortality in buffalo calves was higher during the first three months.

CONCLUSION

The present study revealed that the major constraints faced by the buffalo rearing farmers may be overcome by enhancing the skill of the farmers by giving hands on training in adopting scientific practices in feeding such as preservation of fodder so that the animals get nutritive fodder throughout the year. Proper heat detection methods and timely insemination may augment the conception rate of buffaloes. Value addition along with direct sale of milk will improve the marketability of milk and will fetch a better price to the farmers.

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