CONSTRAINTS ENCOUNTERED BY JAFFARABADI BUFFALO OWNERS IN ADOPTION OF IMPROVED MANAGEMENT PRACTICES IN DHULE DISTRICT

U. S. Gaikwad[1,] F. R. Tadavi[2], P. H. Deshmukh[3] and D. N. Pharate[4]

[1]*Assistant Professor of AHDS, MPKV., Rahuri*
[2]*Ph.D Scholar, Deptt. of AHDS, MPKV., Rahuri*
[3]*Assistant Professor of Agronomy, MPKV., Rahuri*
[4]*Assistant Professor of Extension, MPKV., Rahuri*

Abstract: The study was conducted among 150 Jaffarabadi buffalo owners randomly through pre tested questionnaires to find out various constraints encountered by them in adoption of improved management practices in and around the 10 km periphery of Dhule district. High price of concentrates, shortage of feed and fodder, lack of knowledge about balanced ration, were main constraints faced by Jaffarabadi buffalo owners in adoption of feeding practices. Lack of capital and labor were important constraints in adoption of housing practices. Poor results of A.I., unavailability, inadequate facilities at A.I. center were important constraints in adoption of breeding practices. Low economic gains were significant constraints in adoption of milking management practices. Lack of capital and unavailability of medicines were major constraints in adoption of calf management practices. Lack of knowledge about cause and control of diseases and availability of trained labour were substantial constraints in adoption of health care and disease prevention practices.

Key words: Buffaloes, Constraints, adoption, improved management practices.

Introduction

A symbiotic relationship exists between man-land and livestock ecosystems. Livestock comprising mainly cattle and buffalo have a complementary, supplementary and sustainable relationship with crops under mixed farming system prevalent in our country. India is endowed with largest livestock population in the world. Livestock rearing in India is an integral part of the farming system in that, buffalo have a unique position and plays very important role in Indian dairying. India ranks first in milk production, accounting for 18.5 % of world production, achieving an annual output of 146.3 MT of which the buffalo contributes more than 50 per cent. The superiority of buffalo over local cow in milk production has been proved beyond any doubt. Even the higher percentage of fat, protein and mineral especially calcium content of buffalo milk makes it richer in nutrients vis-à-vis cow milk. In fact, majority of the Indians have preference have buffalo milk. Due to this reason the buffalo population during the last decade has been increasing more than the cattle population.

The Jaffarabadi buffalo is a major milk producing breed in northern Maharashtra particularly in and around Dhule district though it's feed and fodder requirement is quite high. The major reason is that Jaffarabadi buffaloes are found to be best adapted as compare to other breeds even though this breed is native of Saurashtra region of Gujrat around Gir forest.

The buffalo keepers face different kind of problems of breeding, feeding and management/healthcare and most of the problems were indicated the positive impact of dairy cooperative (Singh and Singh, 2005). There is dearth of technical know- how in these days of advanced technology as the milk production per animal per day is very low as compared to its breed average in India. We are far behind the developed countries in this aspect. There may be innumerable constraints before the farmers and consequently they are not adopting the improved recommended practices to the desired

extent. With this point in view, an attempt has been made to study various constraints faced by dairy farmers in adoption of improved practices in the area of breeding, feeding, housing, milking, calf management and health care and disease prevention practices of Jaffrabadi buffalo owners in Dhule district.

Materials and Method

The buffalo farms located in and around 10 km radius of Dhule city (M.S.) were selected for this study to cover minimum 150 Jaffrabadi buffalo owners. Interview schedules were constructed to collect the information from buffalo owners. Interview schedules were constructed to collect the information from buffalo owners by using stratified random sampling and purposive random sampling method with the help of the local leaders, Gramsevak of village and extension workers. Interview schedule was carefully prepared based on the objectives of the study and pre-tested with selected farmers in the study areas to avoid misunderstanding of the respondents and to understand the interview schedule easily. The selected Jaffarabadi buffalo owners were personally interviewed using predetermined questionnaires prescribed by NBAGR Karnal. The family members of the farmers were also involved in the collection of the data, so as to get accurate information as far as possible. While, collecting data sufficient time was given to the farmers to arrive at values by the memory recall method.

In order to investigate constraints faced by buffalo owners regarding breeding, feeding housing, milking, calf management, health care and disease prevention and overall adaption of dairy practices they were exposed to questions whether they had face difficulties in above parameters or not. The perceived constraints were measured by a scale developed by Sharma (1980).

$$\text{Level of constraints} = \frac{\text{No of farmers facing farmers}}{\text{Total no. of respondents}} \times 100$$

After measuring the level of constraints, the data were analyzed by adopting the standard technique prescribed by Snedecor and Cochran (1967) and inferences were drawn.

Result and Discussion

The various constraints in adoption of various improved practices in the area of feeding, housing, breeding, milking, calf management and health care and disease prevention practices were identified, tabulated and presented under various headings as follows:

Feeding practices

The high price of concentrates was the major constraint faced by maximum number of farmers (62.7%) followed by shortage of feed and fodder (45.8%), lack of knowledge about balanced ration (42.5%), Complex and inconvenient practice (40.8%), followed by non availability of concentrates and mineral mixture in village (37.8%) and non-availability of input for production and enrichment of green fodder (28.2 %). (Table 1). These findings are in agreement with those of Singh and Singh (2005).

Table 1: Constraints faced by Jaffarabadi buffalo owners in adoption of selected feeding practices

Sr. No.	Constraints	Level of Adaption (%)
1	Shortage of feed and fodder	45.8
2	Non availability of inputs for production and enrichment of green fodder	28.2
3	Non availability of concentrates and mineral mixtures in village	37.8
4	Lack of knowledge about balanced ration	42.5
5	Higher price of concentrates	62.7
6	Complex and inconvenient practice	40.8

Housing practices

The biggest constraint in adoption of housing practices was lack of capital encountered by 69.7 percent farmers. The problem of labour was faced by 51.5 per cent, where as lack of space (46.3%), lack of time to manage scientific shed (62.2%) and lack of knowledge (39.7%) were the other constraints expressed by Jaffrabadi buffalo owners. (Table 2). These findings seek support from Verma and Sastry (1996) and Thiagarajan and Thomas (1990).

Table 2: Constraints faced by Jaffrabadi buffalo owners in adoption of proper housing management

Sr. No.	Constraints	Level of Adaption (%)
1.	Lack of space	46.3
2.	Lack of capital	69.7
3.	Problems of labour	51.5
4.	Lack of knowledge	39.7
5.	Lack of time to manage scientific shed	62.2
6.	Lack of proper ventilation	43.0

Breeding practices

The most important factor for low adaption of breeding practices was the poor results of A.I. This constraint had been faced by 83.0 % of the respondent followed by the unavailability or distanced location of A.I. centers (73.4%) and inadequate facilities at A.I. center (54.4%). Other constraints such as lack of knowledge about time of mating, inexperienced staff at A.I. centers, small size of heard and individual personal barriers were respectively 46.3, 32.7, 42.1 and 21.5 per cent. (Table 3). These results line with Sharma and Gutam (2010) and Bidwe *et al.* (2009).

Table 3: Constraints faced by Jaffrabadi buffalo owners in breeding management

Sr. No.	Constraints	Level of Adaption (%)
1.	Inaccessibility of AI center	73.4
2.	Inadequate facilities at AI center	54.4
3.	Poor Results of AI	83.0
4.	Lack of knowledge about time of mating	46.3
5.	Inexperienced staff at AI centers	32.7
6.	Small size of herd	42.1
7.	Individual or personal barriers	21.5

Milking management practices

The most important Constraints in adoption of milking practices was low economic gains as expressed by 74.5 per cent owners followed by ignorance about time of drying off (46.6%), problems of labour (44.0%), lack of knowledge about scientific methods of milking (38.5%) and then small size of herd (36.4%). (Table 4). These findings were supported by Satyanarayan and Jagadeeswary (2010) and Ramamurthy and Sinha (1989).

Table 4: Constraints faced by Jaffrabadi buffalo owners in adoption of selected milking management practices

Sr. No.	Constraints	Level of Adaption (%)
1.	Small herd	36.4
2.	Ignorance about time of drying off	46.6
3.	Low economic gains	74.5
4.	Lack of knowledge about scientific methods of milking	38.5
5.	Problems of labour	44.0
6.	Lack of knowledge about improved technology used and proper market	42.1

Calf management practices

The lack of capital was major constraints faced by 45 per cent of respondents followed by Lack of knowledge 38.5 per cent, unavailability of medicines by 32.5 per cent, distance location of veterinary service center and lack of scientific knowledge by 28.6 per cent and 25.0 per cent respectively. (Table 5). These results were in line with Gupta *et al.,* (2004).

Table 5: Constraints faced by Jaffarabadi buffalo owners in adoption calf management practices

Sr. No.	Constraints	Level of Adaption (%)
1.	Unavailability of medicines and disinfectants	32.5
2.	Distant location of veterinary hospital	28.6
3.	Lack of capital	45.0
4.	Lack of knowledge	38.5
5.	Lack of scientific knowledge	25.0

Health care and disease prevention practices

It was clear that, lack of knowledge about cause and control of diseases was the prominent constraint encountered by 64.2% buffalo owners. This was followed by non availability of adequate veterinary services, unavailability of high cost of medicines / disinfectants, Lack of labour and no provision for testing of animals for various diseases with 46.0 per cent, 45.0 per cent, 43.5 per cent and 35.0 per cent respondents respectively. (Table 6). These results are in agreement with Amandeep Kaur et al. (2006) and Kunzru and Tripathi (1994).

Table 6: Constraints faced by Jaffrabadi buffalo owners in health care and disease prevention

Sr. No.	Constraints	Level of Adaption (%)
1.	Lack of knowledge about cause and control of disease	64.2
2.	Non availability of adequate Veterinary services	46.0
3.	Non availability and high cost of medicines / disinfectants	45.0
4.	No provision for testing of animals	35.0
5.	Lack of labor	43.5

Conclusions

The study indicated that High price of concentrates; lack of capital, a poor result of A.I., low economic gains and lack knowledge about cause and control of diseases was the most important constraint as perceived by Jaffarabadi buffalo owners in adoption of feeding, housing, breeding, milking, calf management and health care and disease prevention practices. These constraints were due to the weak economic position and lesser economic incentives from Government to promote dairy farming among the farmers. This might be due to flow of information from research' station to the dairy farmers lead to lack of knowledge about improved dairy farming practices and their perceived results, thus lesser adoption on their part.

References

Amandeep Kaur Mohi and Jasvinder Singh Bhatti 2006. Constraints encountered by dairy farmers in adoption of improved dairy farming practices .J. Dairying, food and H.S. 25 (1) 47-50.

Bidwe K.U., Chavan S.D. and Padghan P.V. 2009. Studies on breeding management practices followed By the buffalo owners of Buldana district of Maharashtra. Indian j. Anim. Res., 43(1): 71-74.

Gupta, L.R., Hariom, Yadav, R.S. and Grewal, S.S. 2004. Effect of different housing systems on the performance of Murrah buffalo heifers during winter. Indian J. Anim. Sci. 74(12):1240.

Kunzru, O.N. and Tripathi, H. 1994. A comparative study of adoption of dairy farm technologies between non members and members of dairy co-operative villages. Indian J. Anim. Sci. 64(5): 501-507.

Ramamurthy, H.S. and Sinha, M.N. 1989. A study of factors associated with improvement in dairying status of members of dairy cooperatives. Indian J. Anim. Prod.Mgmt . 5 (2) : 46-50.

Satyanarayan, K. and Jagadeeswary, V. 2010. A Study on Knowledge and adoption behavior of livestock farmers Indian J. Anim. Res. 44(2): 100-106.

Sharma, R.K. 1980. A study of socio-physiological and infrastructural constraints in the efficient exucation of ICDP. Ph.D. Thesis, NDRI.

Sharma, K. and Gautam 2010. Constraints perceived by dairy farmer in adoption of recommended buffalo Husbandry practices. Indian J. Dairy Sci. 63 (3): 225-232.

Snedecor, G.W. and Cochran, W.G 1994. Statistical method 8th Ed Oxford and IBH Pub. CO., Calcutta.

Singh, S.P., and Singh, M. 2005. Problems of buffalo keepers in Etawah district of Uttar Pradesh. Indian Dairyman. 57 : 10.

Thiagarajan M.and Thomas C. K.1990 Housing effect on crossbreed cows in hot humid climate. Indian J.Anima. Sci. 61(11). 1222-1225

Verma A.K. and Sastry N.S.R.(1996) Reproductive management of buffalo being in Haryana. National symposium on Buffalo Research for Higher productivity, held at ccs Haryana Agriculture University. Hisar session – IV Pp : 55