

STUDIES ON THE SOCIO-ECONOMIC STATUS AND GAP IN MANAGEMENT PRACTICES AMONG DAIRY FARMERS IN SHAHDOL DISTRICT OF MADHYA PRADESH, INDIA

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Abstract

The study was conducted on 400 farmers of four blocks of district Shahdol – a prominent tribal district of Madhya Pradesh. Most of the farmers were in age group between 31-40 years and illiterate. They reared more than four animals and not cultivated green fodder. They grazed their animals in the forest. Lack of good quality feed and fodder the productivity was very low.

Among the constraints perceived by milk producers indicated that first rank given to lack of knowledge of scientific feeding with mean 1.35 ranked first, followed by high calf mortality with mean 1.32 and high cost investment in construction of scientific dairy shed with mean of 1.26. It was conclude that scientific feeding and calving interval period directly affect the milk production and economic returns of the dairy farmers. The gap between standardised and existing management practices as high and low cost practices, the high gap was in block Jaisinghnagar, 84% followed by Gohparu, 83.17% due to lowest educational status among farmers.

Key words: Milk production, dairy farmers, management practices, high and low cost practices.

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Introduction

India is world's largest milk producer, with 133 million tons production (2012-13). Per capita daily availability of milk has increased over the years to reach 290 g (Economic survey, 2011-12), which resembles world's average of 289.31 g per day. The contribution of agriculture and allied sectors to the national gross domestic product (GDP) has declined from 55% (1950s) to 39.5% (1982) and 23.9% (2001-02). However, livestock sector has been among the few high growth sectors in rural India. It accounted for 25.5% of agricultural GDP and about 5.6% of total GDP in 2001-02 (CSO, 2003). Feeding, breeding, housing and health care are the major components of livestock management for increasing dairy production. The country's annual milk production could increase more rapidly, if milch animals are provided feed and health care. This has been demonstrated in the Co-operative dairy network under the Operation flood, (Aneja and Puri, 1997). Dairy in Shahdol is not an organised activity among farmers, but as an allied activity. The productivity is very low. Therefore, the study was conducted to explore the reasons.

Material and methods

The present study was undertaken in the four blocks (Sohagpur, Burhar, Gohparu and Jaisinghnagar) of Shahdol district during the year 2012. Five villages of each block and 20 animal rearers from each village were randomly selected. Thus, the sample size consisted of 400 respondents spread across the twenty selected villages in four blocks of the district. The data were collected by personal interview.

Results and discussion

The results of data collected as per research methodology laid down in the preceding chapter have been presented and discussed in detail in this chapter. For the sake of convenience, results and discussion of the present investigation are presented under the following subsections.

4.1 Socioeconomic status of dairy farmers of Shahdol district

The distribution of dairy farmers according to their socio-economic status is presented in Table 1. The data shown confirmed hypothetical presumptions that these personal traits attributed to their managerial capability.

4.1.1 Age

Perusal of the data reveals that majority of dairy farmers were in the age group between 31-40 years in the district. In Burhar and Sohagpur blocks majority of farmers in 31-40 years, which were 33% and 31% respectively. However, in Gohparu and Jaisinghnagar areas, majority farmers were in 41-50 years age group, which were 31% and 30% respectively.

4.1.2 Education

Regarding education of dairy farmers, majority of them were found illiterate in all areas of the study which were highest in Gohparu 46% and minimum in Burhar block 26%. However, farmers having higher education were higher in Sohagpur block 10%. Thus dairy farming remains in the hands of illiterate farmers and primary educated farmers.

Table 1. Socio-economic status of dairy farmers

S. No.	Trait/category of trait	No./percent			
		Sohagpur	Burhar	Gohparu	Jaisingh nagar
1.	Age				
	Upto 30 years	28	25	19	18
	31-40 years	31	33	27	24
	41-50 years	23	20	31	30
	Above 50 years	18	22	23	28
2.	Education				
	Illiterate	28	26	46	42
	Primary	30	31	21	22
	Junior	19	17	18	17
	High School	13	17	09	12
	Above high school	10	09	06	07
3.	Size of land holding				
	Landless	09	07	05	06
	Upto1 ha	27	26	32	28

	1-2 ha	33	38	27	35
	2-3 ha	19	21	22	19
	More than 3 ha	12	08	14	12
4.	Herd size				
	Upto 2 animals	19	17	24	21
	3-4 animals	38	36	37	41
	Above 4 animals	43	47	39	38
5.	Area under fodder crop				
	Nil	48	46	50	48
	Upto 1 acre	44	43	41	43
	More than 1 acre	08	11	09	09

4.1.3 Size of land holding

Regarding land holding, majority of farmers were small farmers 38%, 35% & 33% in Burhar, Jaisinghnagar and Sohagpur block respectively followed by small farmers in Gohparu (27%).

4.1.4 Herd size

Regarding herd size in Burhar, Sohagpur and Gohparu blocks farmers had above 4 animals, which were nondescript, were 47%, 43% & 39%). However, in Jaisinghnagar 41% farmers had 3-4 animals.

4.1.5 Area under fodder crop

As far as area under fodder crop was concerned more than 50% farmers were not cultivating fodder for their animals and approximately 43% farmers produced fodder in less than 1 acre of land.

Gap between standardized and existing management practices among the bovine dairy farmers.

Cattle and buffalo management practices were categorized on the basis of cost involved, viz., high and low cost practices. The managerial practices were categorized in to 'high cost' practices which includes housing, feeding and healthcare practices and 'low cost' practices

which includes breeding, calf rearing and milking practices. In the present investigation the studies were also conducted gap between standardized and existing management practices among the bovine dairy farmers. The data showing in Table 9.1, 9.2, 9.3 and 9.4. Indicate the distribution of the dairy farmers according to their level of gap of various practices.

Among low cost practices, it is very clear that most of the farmers were in the high gap in all the areas. In calf rearing practices, 80, 83, 81 and 88% of farmers in Sohapur, Burhar, Gohparu and Jaisinghnagar areas, were in high gap category. This might be due to not adopting some of the important practices like right time of colostrum feeding, disinfection of navel cord, colostrum feeding on the basis of weight of calf and regular vaccination. In breeding practices, 75, 72, 79 and 76% farmers were in high gap category in Sohagpur, Burhar, Gohparu and Jaisinghnagar areas, respectively. This might be due to unawareness of the important practices like pregnancy diagnosis, right time of breeding and treatment of repeat breeders in all the study areas. In milking practices, 80, 84, 84 and 88% farmers were in high gap category in respective blocks. This might be due to not following full hand milking method, teat sealing, milking record and time taken in milking (>7 minutes).

In high cost practices viz., feeding, housing, and health care practices, the average percentage of low, medium and high gap farmers in Sohagpur areas were 12, 8, 80; 17, 13, 70 and 5,17, 78%, respectively. In Burhar these were 8, 12, 80; 10, 16, 74 and 9, 12, 79%, in Gohparu areas 5, 8, 87; 0, 18, 82 and 0, 14, 86% and in Jaisinghnagar 0, 12, 88; 10, 12, 78 and 3, 11, 86%, respectively.

In feeding practices, a considerable large, 88% of the dairy farmers were found in high gap category in Jaisinghnagar areas. Similarly in Gohparu, Burhar and Sohagpur areas, 87, 80 and 80% of the dairy farmers were found in high gap category. This might be due to lack of green fodder and high cost of feed. In housing practices 70, 74, 82 and 78% farmers of Sohagpur, Burhar, Gohparu and Jaisinghnagar areas, were in high gap category. This might be due to lack of drainage facility and ventilation in houses, but in Sohagpur areas these facilities were found slight better than others. In health care practices 78, 79, 86 and 86% farmers were in the high gap

category in Sohagpur, Burhar, Gohparu and Jaisinghnagar areas, respectively. This might be due to poor veterinary setup in the village level and high cost of treatment.

Table 2. Gap between standardized and exiting management practices among the bovine dairy farmers in Sohagpur block

S. No.	Practices	High gap	Medium gap	Low gap	Total
Low cost practices					
1.	Calf rearing practices	80	10	10	100
2.	Breeding practices	75	18	07	100
3.	Milking practices	80	10	10	100
High cost practices					
1.	Feeding practices	80	08	12	100
2.	Housing practices	70	13	17	100
3.	Health care practices	78	17	5	100
Total		463	76	61	600
(%)		(77.16)	(12.67)	(10.17)	(100)

Table 3. Gap between standardized and exiting management practices among the bovine dairy farmers in Burhar block

S. No.	Practices	High gap	Medium gap	Low gap	Total
Low cost practices					
1.	Calf rearing practices	83	12	05	100
2.	Breeding practices	72	18	10	100
3.	Milking practices	84	10	06	100
High cost practices					
1.	Feeding practices	80	12	08	100
2.	Housing practices	74	16	10	100
3.	Health care practices	79	12	09	100
Total		472	80	48	600
(%)		(78.67)	(13.33)	(8)	(100)

Table 4. Gap between standardized and exiting management practices among the bovine dairy farmers in Gohparu block

S. No.	Practices	High gap	Medium gap	Low gap	Total
Low cost practices					
1.	Calf rearing practices	81	11	08	100
2.	Breeding practices	79	21	-	100
3.	Milking practices	84	14	02	100
High cost practices					
1.	Feeding practices	87	08	05	100
2.	Housing practices	82	18	-	100
3.	Health care practices	86	14	-	100
Total		499	86	15	600
(%)		(83.17)	(14.33)	(2.5)	(100)

Table 5. Gap between standardized and exiting management practices among the bovine dairy farmers in Jaisinghnagar block

S. No.	Practices	High gap	Medium gap	Low gap	Total
Low cost practices					
1.	Calf rearing practices	88	12	-	100
2.	Breeding practices	76	20	04	100
3.	Milking practices	88	10	02	100
High cost practices					
1.	Feeding practices	88	12	-	100
2.	Housing practices	78	12	10	100
3.	Health care practices	86	11	03	100
Total		504	77	19	600
(%)		(84.00)	(12.83)	(3.17)	(100)

The overall percentage of the farmers in high gap, medium gap and low gap categories were 77.16, 12.67, 10.17; 78.67, 13.33, 8.0; 83.17, 14.33, 2.5 and 84.00, 12.83, 3.17% in Sohagpur, Burhar, Gohparu and Jaisinghnagar areas respectively. Malik (1997) and Sheoran and Kumar

(1988) found better condition in their study areas regarding gap between standardized and existing management practices.

CONCLUSION

It was concluded that economics of dairy farming depends on the scientific management practices. The performance of the animals can be increased by scientific feeding and breeding of improved animals because calving interval period directly affect the economics of the farmers.

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References

- Dhiman, P.C., Singh, Narendra and Yadav, B.L. (1990). A study on cattle and buffalo feeding and breeding practices in adopted and non-adopted village of Hissar district. *Indian J. Anim. Prod. Mgmt.*, **6**(2): 90-94.
- Gulati, S.K., Garg, M.R., Serashia, P.L. and Scott, T.W. (2003). Enhancing milk quality and yield in the dairy cow and buffalo by feeding protected nutrient supplement. *Asia Pac J. Clin Nutr.* **12**: S61.
- Hammon, H.M., Metges, C.C., Junghans, P., Becker, F., Bellmann, O., Schneider, F., Nurnberg, G., Dubreuil, P. And Lapierre, H. (2008). Metabolic changes and net portal flux in dairy cows fed a ration containing rumen protected fat as compared to control diet. *Dairy Sci.* **91**:208-217.
- Kalyankar, S.D., Gujar, B.V., Patange, D.D.G.R. and Londhe, G.K. (2004). Adoption of dairy management practices of Marathwadi buffaloes in their home tract. *Indian J. Dairy Sci.*, **57**(6): 421-423.
- Kokate, K.D. and Tyagi, P. (1991). Factors contributing to the level of breeding gaps in cattle of tribal milieu. *Mah. J. Ext. Edu.*, **XIII**: 209-216.
- Malik, D.S. (1997). Studies on managerial practices of Murrah buffalo in its home-tract of Haryana. Ph.D. thesis, NDRI, Karnal.

- Palmquist, D.L. and Jenkins, T.C. (1980). Fat in lactation ration. Review. *J. Dairy Sci.* **63**: 1-14.
- Singh, P., Singh, M., Verma, M.L. and Jaiswal, R.S. (2004). Animal husbandry practices in Tarikhet block of Kumaon hill of Uttaranchal. *Indian J. Anim. Sci.*, **74**(9): 997-999.
- Sinha, R.R.K., Dutt, Triveni, Singh, R.R., Singh, Mukesh and Bhushan, Bharat (2010). Studies on breeding and health care management practices in rural, semi-urban and urban areas of Bareilly district of Uttar Pradesh. *Indian J. Anim. Prod. Mgmt.*, **26**(1-2):11-15.
- Snedecor, G.W. and Cochran, W.G. (1994). Statistical methods, 9th ed. Oxford and IBH publishing Co., Calcutta.