Indian Journal of Extension Education
Vol. 51, No. 3 & 4, 2015 (104-107)

Technological Constraints Perceived by Dairy Entrepreneurs

Navab Singh[1], F. L. Sharma[2], J. L. Chaudhary[3] and S. D. Dhakar[4]

ABSTRACT

The present study was undertaken to find out the technological constraints faced by the dairy cooperative society members and non-members in adoption of advanced dairy production technology. A total of 240 respondents (120 members and 120 non-members of dairy cooperative societies) were included in the sample of the study. The results of the study indicated that low draft capacity of crossbreed male, less area under fodder crops, shortage of water for green fodder production, inadequate and costly medicines, non-remunerative price of milk, low conception rate through A.I., non-availability of mineral mixture were the important constraints expressed by the members of dairy cooperative societies in the adoption of advanced dairy production technology. Whereas, non-members of dairy cooperative societies also perceived similiar constraints with different level of severity.

Keywords: Constraints, dairy cooperative society, members, non-members.

INTRODUCTION

Dairy cooperatives in India, being the replication of the 'Anand' type dairy cooperatives, have played a major role in production and marketing. It undertakes milk production enhancement programme through artificial insemination, veterinary services, inputs like cattle feed, fodder seeds, proper marketing and credit facilities. The extension functionaries of the dairy cooperatives also conduct educational programmes of dairy cooperative society members for improving their level of knowledge, and adoption of scientific management practices of dairy animals. Cooperative societies of milk producers are stated to be the best mean to help the dairy farmers to derive the maximum benefits out of their enterprises. The main objective of milk producer's cooperative societies is to safeguard and protect the interest of milk producers, although the milk producers are facing large number of problems in adoption of advanced dairy production technology. Therefore the present study was undertaken with the specific objective to find the technological constraints faced by the dairy cooperative society members and non-members in adoption of advanced dairy production technology.

METHODOLOGY

The study was conducted in purposively selected Udaipur district of Rajasthan state. The investigation was concerned with "Udaipur Zila Dugdh Utpadak Sahakari Sangh Limited, Udaipur" (Udaipur Dairy Union). The Udaipur dairy union consists of 23 milk procurement routes. Out of these six milk routes were selected randomly. Further, two dairy cooperative societies (DCSs) were selected randomly from each identified milk procurement route. Thus, a total 12 dairy cooperative societies were selected for present investigation. To select the milk producer members, simple random sampling technique was adopted. From each selected dairy cooperative society, 10 milk producer members were selected. Thus, a total of 120 milk producer members were selected from 12 dairy cooperative societies. In order to make it a comparative study a sample of 120 non-members of dairy cooperative societies who did not had any linkage with dairy cooperative societies, were taken randomly from distant villages of same milk procurement routes. Thus, in total 240 respondents (120 members and 120 non-members of dairy cooperative societies) were included in the sample of the study. The information was collected through personal interview technique.

RESULTS AND DISCUSSION

The findings pertaining to technological constraints as perceived by the dairy farmers are presented in the form of breeding, feeding, health care and marketing constraints, which are as follows:

[1.] Assitant Professor (Agricultural Extension Education), College of Horticulture & Forestry, Jhalawar Rajasthan). [2.] Professor & Head, Department of Extension Education, Rajasthan College of Agriculture, MPUAT, Udaipur (Rajasthan)-313001.[3.] Director, Planning and Monitoring, Maharana Pratap University of Agriculture & Technology, Udaipur (Rajasthan) -313001.[4.] Programme Coordinator, Krishi Vigyan Kendra, Bhilwara (Rajasthan).

Breeding constraints

The data presented in Table 1 depict that "low draft capacity of crossbred male" was realized as most important constraint with MPS 71.90. This was followed by problems of "low conception rate through A.I." and "lack of pregnancy testing facilities under field conditions" with MPS 64.70 and 63.90, respectively. Whereas, in case of non-member respondents "non-availability of A.I. services during holidays" was realized as one of the most important constraint, followed by "low conception rate through A.I." and "lack of semen freezing facility".

Further analysis of table clearly shows that "low fat content in the milk of crossbred cow" was expressed as important constraint by the members and non-members of dairy cooperative societies. The respondents of both the categories also faced the serious problem about "non-adoption of scrub and working buffalo bulls" in the study area. The constraint perceived at lowest by the member respondents was "problem of heat detection in buffaloes" but in case of non-member respondents "decline in milk production due to repeated inter-breeding" was expressed at lowest as this category of respondents may not be aware about the disadvantages of inter-breeding in animals.

Table 1: Constraints perceived by the respondents in animal breeding
n = 240

Constraints	Members of DCSs (n=120)		Non-members of DCSs (n=120)		Total	
	MPS	Rank	MPS	Rank	MPS	Rank
Low genetic potential of milch animals	47.20	8	55.00	9	51.11	9
Low pedigree of cattle and buffalo bulls	39.20	12	50.30	11	44.72	11
Decline in milk production due to repeated breeding	47.50	7	25.30	13	36.39	13
Lack of pregnancy testing facilities under field conditions	63.90	3	73.60	8	68.75	5
Lack of semen freezing facility	52.50	6	80.60	3	66.53	6
Low conception rate through A.I.	64.70	2	87.20	2	75.97	1
Non-availability of A.I. during holidays	46.10	10	98.20	1	72.50	3
Low fat content in the milk of crossbred cows	60.30	4	79.40	4	69.86	4
Non-castration of scrub and working buffalo bulls	56.70	5	73.90	7	65.28	7
Problem of abortion in animals	45.30	11	52.80	10	49.03	10
Low draft capacity of crossbred male	71.90	1	77.50	5	74.72	2
Untimely availability of semen of proven bulls	46.70	9	76.10	6	61.39	8
Problem of heat detection in buffaloes	33.30	13	39.70	12	36.53	12

MPS = Mean per cent score
NS = Non-significant.

$r_s = 0.49$
t = 0.89 NS

Calculated value of "t" was 0.89, which leads to conclusion that there was significant difference in the ranks assigned by member and non-member respondents in different aspects of breeding constraints. Similar findings have been reported by Khan (1991) and Balasubramaniam and Johan Knight (1982)

Feeding constraints:

The data in Table 2 depicts that "less area under fodder crops" was expressed as priority problem by the member respondents and ranked first in problem hierarchy. It followed "shortage of water for green fodder production" with MPS 70.00, the realization of problem related to fodder production may be due to the fact that the area under study highly suffered from lack of rain during last 4-5 years. "Non-availability of mineral mixture" was perceived third most important constraint by the members of dairy cooperative societies.

Table 2: Constraints perceived by the respondents in animal feeding
n = 240

Constraints	Members of DCSs (n=120)		Non-members of DCSs (n=120)		Total	
	MPS	Rank	MPS	Rank	MPS	Rank
Less area under fodder crops	72.20	1	93.30	2	82.78	1
Insufficient supply of green fodder during lean season	58.30	4	66.90	6	62.64	6
Costly cattle feeds	50.30	5	97.50	1	73.89	2
Non-availability of mineral mixture	66.10	3	73.30	5	69.72	4
Shortage of water for green fodder production	70.00	2	76.40	4	73.19	3
Unavailability of fodder seeds and other inputs	48.90	6	80.60	3	64.72	5

MPS = Mean per cent score
NS = Non-significant.

$r_s = 0.086$ NS

Table further shows that "costly cattle feeds" was considered as most important constraint by the non-member respondents followed by the problems of "less area under fodder crops" and "unavailability of fodder seeds and other inputs" respectively. The problem related to costly cattle feeds for animals might be due to fact that economic condition of non-member farmers was not good and lack of proper agencies for supply of cattle feeds at reasonable rate. The constraints which was given last importance by the member respondents was "unavailability of fodder seeds and other inputs" because such facilities are provided by the dairy union to the members of dairy cooperative societies. Whereas, in case of non-member respondents "insufficient supply of green fodder during lean season" was realized as least important in feeding constraints of dairy animals.

The calculated value of rank order correlation coefficient (r_s) was found to be 0.086, statistically non-significant. It infers that there is variation in the ranks assigned by both the categories of respondents about feeding constraints of animals. The findings are in agreement with the findings of Sohi and Kherde (1980) who revealed that higher cost was main reason for not providing balanced and commercial feeds to the animals. Pandey and Devi (2000) reported that poor availability of green fodder in all seasons.

Constraints of health care:

The data presented in Table 3 depicts that "inadequate and costly medicines" was the most important health care constraint perceived by the member respondents while, it was ranked second by the non-members. The next important problem perceived by the member respondents was "ineffective control measures against parasites" whereas non-members perceived it fourth important

Table 3: Animal health care constraints expressed by the dairy farmers
n = 240

Constraints	Members of DCSs (n=120)		Non-members of DCSs (n=120)		Total	
	MPS	Rank	MPS	Rank	MPS	Rank
Unavailability of veterinary facilities	36.10	3	83.30	1	59.72	2
Inadequate and costly medicines	60.30	1	64.70	2	62.50	1
Ineffective treatment against diseases	33.30	5	61.70	3	47.50	3
Irregular vaccination facilities	34.20	4	33.30	5	33.75	5
Ineffective control measures against parasites	38.60	2	53.10	4	45.83	4

MPS = Mean per cent score
NS = Non-significant.

r_s = 0.30 NS

Further analysis of table shows that "unavailability of veterinary facilities" was expressed as one of the most serious problem by the non-member respondents, while it was ranked third by the member respondents. In majority of the cases no veterinary services provided to ailment animals on account of non-availability of these services in the non-members villages. The calculated value of rank order correlation was 0.30 which is statistically non-significant at 5 per cent level of significance. The findings are in accordance with the findings of Thorat and Kulkarni (1994), Pandey and Devi (2000) who concluded that high cost of medicines as the important problem perceived by the dairy farmers.

Marketing constraints

The data presented in Table 4 Showed that "non-remunerative price of milk" was the most important marketing problem as perceived by the member and non-member respondents. This was followed by the constraint of "lack of milk collection facility in the evening". The realization of problem related to non-remunerative price of milk may be because of the reason that both the categories of dairy farmers are not getting remunerative price of milk against the expenditure incurred in the milk production.

Table further indicates that the third emphasis by the members of DCSs was given on "faulty detection of milk fat" while it was ranked fourth by the non-member respondents. The problem of "mode of payment is inconvenient to the dairy farmers" was perceived as less important by the members of dairy cooperative societies and ranked last in the problem hierarchy, while, non-member respondents considered it, as one of the important constraint of marketing of milk. The majority of non-member respondents realized that private vendors are generally not making payment timely and completely to the dairy farmers.

Table 4: Marketing constraints perceived by the dairy farmers
n = 240

Constraints	Members of DCSs (n=120)		Non-members of DCSs (n=120)		Total	
	MPS	Rank	MPS	Rank	MPS	Rank
Non-remunerative price of milk	71.10	1	76.40	1	73.75	1
Mode of payment is inconvenient to the dairy farmers	33.30	4	53.90	3	43.61	3
Faulty detection of milk fat	34.20	3	33.30	4	33.75	4
Lack of milk collection facility in the evening	34.40	2	57.80	2	46.11	2

MPS = Mean per cent score
NS = Non-significant.

r_s = 0.80 NS

The calculated rank order correlation (r_s) value was found to be 0.80, which is statistically non-significant hence, inference can be drawn that ranks accorded by the member respondents are not similar with the ranks accorded by non-member respondents about marketing constraints.The above findings are in line with the findings of Sharoti (1989) and Pareek (1998).

CONCLUSION

It can be concluded from the above discussion that low draft capacity of crossbred male, less area under fodder crops, shortage of water for green fodder production, inadequate and costly medicines, non-remunerative price of milk, low conception rate through A.I., non-availability of mineral mixture were the important constraints expressed by the members of dairy

cooperative societies in the adoption of advanced dairy production technology. Whereas, non-members of dairy cooperative societies perceived most important constraints were namely non-availability of A.I. services during holidays, low conception rate through A.I., costly cattle feeds, unavailability of fodder seeds and other inputs, non-availability of veterinary facilities, inadequate and costly medicines, non-remunerative price of milk and lack of milk collection facility in the evening.

Paper received on : April 21, 2015
Accepted on : June 4,2015

REFERENCES

Balasubramaniam, R. and Johan Knight, A. 1982. "Bottlenecks in modern dairying". *Indian J. Extn. Edu.,* XVIII (I&2):102-105.

Khan, I.M. 1991. "Attitude and aspirations of farm women towards rearing crossbred cattle in Jaipur district (Rajasthan)". M.Sc. Thesis (unpublished), RAU, Bikaner, Campus SKN COA, Jobner.

Pandey, A.K. and Devi, K.H.B. (2000). "Constraints in adoption of dairy husbandry". *Rural India*, 63: 165-169.

Pareek, S.S. 1998. "A study on behavioral changes of farmers regarding advanced techniques for dairy development in Bikaner district of Rajasthan state". Ph.D. Thesis (unpublished), RAU, Bikaner, Campus RCA, Udaipur.

Shroti, A.K. 1989. "An analysis of constraints in milk procurement in milk producers cooperative union limited, Aligarh". M.Sc. Thesis (unpublished), NDRI, Karnal.

Sohi, J.S. and Kherde, R.L. (1980). "A study of the job activities of the milk procurement personnel". *Indian J. Ext. Edu.*, XVI(122):86.

Thorat, D.R. and Kulkarni, B.R. 1994. "Constraints faced by the dairy farmers". *Maharashtra. J. Extn. Edn.*, 13: 305-306.