Journal of Life Sciences 11 (2017) 150-154
doi: 10.17265/1934-7391/2017.03.006

Constraints Hindering the Adoption of Scientific Dairy Farming Practices by Members and Non-members of Dairy Co-operative Societies (DCS)/Milk Producer Institutions (MPI)

Beloori Bhargava Santosh[1], Mallampati Srinivasa Reddy[2], Chedurupally Satyanarayana[3] and Mallam Mahender[4]

1. Veterinary Dispensary, Rangampet 502381, Medak District, Telangana State, India

2. Department of Veterinary and Animal Husbandry Extension Education, College of Veterinary Science, Hyderabad 500030, PVNR TVU, Telangana State, India

3. Department of Veterinary and Animal Husbandry Extension Education, College of Veterinary Science, Korutla 505326, PVNR TVU, Telangana State, India

4. College of Dairy Technology, Kamareddy 503111, PVNR TVU, Telangana State, India

Abstract: The present study was conducted in four districts of Telangana State of India with 120 respondents in which 60 were members and other 60 were non-members of DCSs (Dairy Co-operative Societies)/MPIs (Milk Producer Institutions). Constraints perceived in dairy farming and suggestions elicited by members and non-members were noted, tabulated and analyzed. The major constraints perceived by half or more than half of members were scarcity of water (91.67%), lack of green fodder (88.33%), preferring NS (natural service) than AI (Artificial Insemination) (83.33%), negligence in feeding pregnant and dry animals (81.37%), insufficient loan amount (78.33%), tendency to feed only grass and brans (71.67%), lack of availability of sufficient labour (70.00%), lack of remunerative price for milk (66.67%), high cost of feed (61.67%), lack of fodder conservation (55.00%) and high cost of animals (50.00%). Whereas major constraints perceived by non-members were scarcity of water (96.67%), lack of green fodder (93.33%), preferring NS than AI (88.33%), lack of availability of sufficient labour (85.00%), negligence in feeding pregnant and dry animals (83.33%), tendency to feed only grass and brans (78.33%), high cost of animals (75.00%), complex procedure for obtaining loans (71.67%) and high cost of feed (66.67%). Suggestions elicited by members majorly were providing subsidy for purchase of animals/providing loans on par with the cost of animal (81.67%), enhancing the procurement price (70.00%), providing more incentives (60.00%), encouraging calf rearing (58.33%) and conducting frequent animal health camps (50.00%). In case of non-members major suggestions elicited were conducting frequent animal health camps (68.33%) and providing subsidy on purchase of animals/providing loans on par with the cost of animal (58.33%). Considering the above constraints perceived and suggestions elicited by dairy farmers a proper linkage strategy should be developed among private and public sectors in providing need based services to the dairy farmers.

Key words: Constraints, suggestions, dairy co-operative societies, MPIs, members, non-members.

1. Introduction

India ranks first in terms of milk production and bovine population in the world. Dairy is providing livelihood to 60 million rural households in India. Productivity of dairy animals (non descript/Indigenous cattle: 2.54 Kg/day, Buffalo: 5.15 Kg/day and Exotic/Crossbred cattle: 7.15 Kg/day) is very low in the country [1]. Constraints faced by dairy farmers hinder the adoption of improved scientific dairy farming practices which in turn results in low milk production and productivity. Thus livelihood of dairy

Corresponding author: Beloori Bhargava Santosh, PG, veterinary assistant surgeon, research fields: veterinary & animal husbandry extension.

farmers is also affected.

Various services provided by DCSs (Dairy Co-operative Societies)/MPIs to their members like input services, market access, veterinary aid etc., made the members more advantageous than non-members. Constraints perceived not only by non-members but also by members hinder the adoption of improved scientific dairy farming practices. The present study was conducted to analyse the constraints perceived by both members and non-members and suggestions elicited to overcome the constraints.

2. Materials and Methods

The study was conducted in Karimnagar, Warangal Urban, Siricilla and Jagtial districts of Telangana State. One mandal from each district was randomly selected and from each mandal three villages were selected based on their milk procurement (one low, one medium and one high). From each village 5 members and 5 non-members were selected randomly. Thus a total sample of 120 was obtained with 60 members and 60 non-members. An interview schedule was prepared and pretested in non sample area. Data were collected, analysed and interpreted.

3. Results and Discussion

From Table 1 it could be noticed that constraints perceived by the members were in the rank order of scarcity of water (91.67%), lack of green fodder (88.33%), preferring NS than AI (83.33%), negligence in feeding pregnant and dry animals (81.37%), insufficient loan amount (78.33%), tendency to feed only grass and brans (71.67%), lack of availability of sufficient labour (70.00%), lack of remunerative price for milk (66.67%), high cost of feed (61.67%), lack of

Table 1 Constraints perceived by members and non-members.

S.No.	Constraints	Members			Non-members		
		F	%	Rank	F	%	Rank
1	Lack of remunerative price for milk	40	66.67	VIII	15	25.00	XIII
2	Lack of veterinary aid	7	11.67	XIX	21	35.00	XI
3	Irregular supply of feed	-	-	-	7	11.37	XVII
4	Untimely/lack of supply of fodder slips/seeds	8	13.33	XVIII	14	23.33	XIV
5	Scarcity of water	55	91.67	I	58	96.67	I
6	Lack of incentives	13	21.67	XV	-	-	-
7	Lack of training	11	18.33	XVI	18	30.00	XII
8	High cost of medicines	19	31.67	XII	3	5.00	XX
9	High cost of animals	30	50.00	XI	45	75.00	VII
10	High cost of feed	37	61.67	IX	40	66.67	IX
11	Complex procedure for obtaining loan	16	26.67	XIII	43	71.67	VIII
12	Unfriendly repayment schedule	14	23.33	XIV	4	6.67	XIX
13	High rate of interest on loans	-	-	-	6	10.00	XVIII
14	Negligence in feeding pregnant and dry animals	49	81.37	IV	50	83.33	V
15	Preferring natural service (NS) than Artificial Insemination (AI)	50	83.33	III	53	88.33	III
16	Tendency to feed only grass and brans	43	71.67	VI	47	78.33	VI
17	Lack of green fodder	53	88.33	II	56	93.33	II
18	Distant location of milk collection center	-	-	-	1	1.67	XXI
19	Interference of politics in DCSs/MPIs	5	8.33	XX	-	-	-
20	Lack of fodder conservation	33	55.00	X	25	41.67	X
21	Preferring growing cash crops than green fodder	10	16.67	XVII	12	20.00	XV
22	Indiscriminate usage of pure semen	4	6.67	XXI	-	-	-
23	Lack of availability of sufficient labour	42	70.00	VII	51	85.00	IV
24	Insufficient loan amount	47	78.33	V	8	13.33	XVI

fodder conservation (55.00%), high cost of animals (50.00%), high cost of medicines (31.67%), complex procedure for obtaining loan (26.67%), unfriendly repayment schedule (23.33%), lack of incentives (21.67%), lack of training (18.33%), preferring growing cash crops than green fodder (16.67%), untimely/lack of supply of fodder slips/seeds (13.33%), lack of veterinary aid (11.67%), interference of politics in DCSs/MPIs (8.33%) and indiscriminate usage of pure semen (6.67%).

In non-members perceptions of constraints were in descending trend of scarcity of water (96.67%), lack of green fodder (93.33%), preferring NS than AI (88.33%), lack of availability of sufficient labour (85.00%), negligence in feeding pregnant and dry animals (83.33%), tendency to feed only grass and brans (78.33%), high cost of animals (75.00%), complex procedure for obtaining loans (71.67%), high cost of feed (66.67%), lack of fodder conservation (41.67%), lack of veterinary aid (35.00%), lack of training (30.00%), lack of remunerative price for milk (25.00%), untimely/lack of supply of fodder slips (23.33%), preferring growing of cash crops than green fodder (20.00%), insufficient loan amount (13.33%), irregular supply of feed (11.37%), high rate of interest on loans (10.00%), unfriendly repayment schedule (6.67%), high cost of medicines (5.00%) and distant location of milk collection center (1.67%).

From the above table 1 it could be inferred that scarcity of water [2, 3], lack of green fodder [2-7], preferring NS than AI, lack of availability of sufficient labour [5, 7, 8], negligence in feeding pregnant and dry animals [3], tendency to feed only grass and brans were the major constraints perceived by both members and non-members in descending priority order.

This phenomenon seen in study area might be due to drought prevailing in study area during investigation. Animals of all dairy farmers were sent for grazing together along with male animals resulted natural breeding activity in the grazing area. Unlikeliness of people to be as a labourer in others' farm and less family labour were available due to not employing their children in farms so as to make them well educated and well employed. This might be the reason for lack of availability of sufficient labour. Reasons for the last two constraints mentioned in above paragraph might be due to concentration of dairy farmers only on animals in milch, which are immediate sources of income by neglecting other animals.

Other major constraints perceived by members in decreasing rank order were insufficient loan amount, lack of remunerative price for milk [4, 6, 9], high cost of feed [4, 6, 9], lack of fodder conservation and high cost of animals [4].

The probable reasons for above constraints might be provision of loan amount equally for all the applicants by the DCSs/MPIs not considering the cost of animals, feed and availability of animals in the market. Drought conditions prevailing in the study area made members get aware and perceive fodder conservation as one of the major constraints.

Other major constraints perceived by non-members in decreasing order of preference were high cost of animals, complex procedures for obtaining loans from banks [7, 8], high cost of feed [3], lack of fodder conservation [3], lack of veterinary aid [7], and lack of training [3, 8].

High cost of animals combined with complex procedures for obtaining loans might make buying animals a burdensome task for non-members. Feed costs are touching skies which are very far away from the affordability of the farmers, and might made them perceive feed cost as a constraint. Lack of fodder conservation facilities and meagre number of professional veterinary staff in the study area might be the reasons for last three constraints mentioned in above paragraph.

Suggestions elicited Table 2 by members in the descending order of their importance were providing subsidy for purchase of animals/providing loans on par with the cost of animal (81.67%), enhancing the

Table 2 Suggestions elicited by members and non-members.

S.No.	Suggestions	Members			Non-members		
		F	%	Rank	F	%	Rank
1	Enhancing the procurement price	42	70.00	II	-	-	-
2	Improving veterinary services	27	45.00	VI	19	31.67	IV
3	Providing more incentives	36	60.00	III	-	-	-
4	Conducting regular training programmes	24	40.00	VII	23	38.33	III
5	Encouraging calf rearing	32	58.33	IV	16	26.67	V
6	Encouraging fodder cultivation In their fields	20	33.33	IX	13	21.67	VII
7	Conducting frequent animal health camps	30	50.00	V	41	68.33	I
8	Providing subsidy on purchase of animals/ providing loans on par with the cost of animal	49	81.67	I	35	58.33	II
9	Encouraging fodder cultivation in waste lands	16	26.67	X	15	25	VI
10	Need of special help line for dairy	10	16.67	XII	9	15	VIII
11	Increasing attendance in training	21	35.00	VIII	-	-	-
12	Timely supply of fodder slips/seeds	5	8.33	XIII	7	11.67	IX
13	Fodder conservation	14	23.33	XI	4	6.67	X

procurement price (70.00%), providing more incentives (60.00%), encouraging calf rearing (58.33%), conducting frequent animal health camps (50.00%), improving veterinary services (45.00%), conducting regular training programmes (40.00%), increasing attendance in training (35.00%), encouraging fodder cultivation in their fields (33.33%), encouraging fodder cultivation in waste lands (26.67%), fodder conservation (23.33%), need of a special help line for dairy (16.67%) and timely supply of fodder slips/seeds (8.33%).

Suggestions elicited from Table 2 by non-members in rank order were conducting frequent animal health camps camps (68.33%), providing subsidy on purchase of animals/providing loans on par with the cost of the animal (58.33%), conducting regular training programmes (38.33%), improving veterinary services (31.67%), encouraging calf rearing (26.67%), encouraging fodder cultivation in waste lands (25.00%), encouraging fodder cultivation in their fields (21.67%), need of special help line for dairy (15.00%), timely supply of fodder slips/seeds (11.67%) and fodder conservation (6.67%).

Providing subsidy for purchase of animals/providing loans on par with the cost of the animal [4, 10, 11], enhancing the procurement price [11], providing more incentives, encouraging calf rearing, conducting frequent animal health camps [5], improving veterinary services [4, 5], conducting regular training programmes [4, 5] and increasing attendance in training were major suggestions elicited by members. Whereas, conducting frequent animal health camps [5], providing subsidy on purchase of animals/providing loans on par with the cost of the animal [4, 10, 11], conducting regular training programmes [4, 5] and improving veterinary services [4, 5] were major suggestions elicited by non-members. This depicts that dairy farmers in the study area were in need of financial, educational and medical support from concerned authorities.

4. Conclusions

Scarcity of water, lack of green fodder, preferring NS than AI and tendency to feed only grass and brans were the major constraints perceived by both members and non-members. Besides that insufficient loan amount, lack of remunerative price for milk and high cost of feed were majorly perceived by members while high cost of animals, complex procedures for obtaining loans from banks and high cost of feed were majorly perceived by non-members. Providing subsidy for purchase of animals/providing loans on par with the cost of the animal, enhancing the procurement price of milk, providing more incentives,

encouraging calf rearing and conducting frequent animal health camps were the major suggestions elicited by members whereas conducting frequent animal health camps, providing subsidy on purchase of animals/providing loans on par with the cost of the animal, conducting regular training programmes and improving veterinary services were major suggestions elicited by non-members. Department of Animal Husbandry, co-operative agencies and MPIs that are operating in the area should make efforts to educate the farmers on fodder conservation, preparation of low cost balanced feed with locally available resources, calf rearing, care of pregnant and dry animals and should take steps to increase attendance and attentiveness of trainee farmers in training programmes. Government should have proper regulatory mechanism to work out cost of milk production at farmers' level and fix the remunerative price. Considering strengths and weaknesses of public and private sectors, it is felt appropriate to develop a proper linkage strategy among private and public veterinary services in providing training programmes and need-based services. If the constraints are tackled and productivity of dairy animals is enhanced not only the livelihood of dairy farmers will be increased but also fodder shortage will be decreased.

Acknowledgements

The authors acknowledge the PVNR Telangana Veterinary University for the financial help extended and management of Karimnagar and Mulukanoor Dairies and Animal Husbandry Department for facilitating the authors in scientific conduction of the research work.

References

[1] BAHS. 2016. "A Technical Note on Basic Animal Husbandry Statistics." Department of Animal Husbandry, Dairying and Fisheries, Government of India. Accessed on May 16, 2017. http://dahd.nic.in/sites/default/files/BAHS-2016%20Updated%20on%2016.08.16.pdf.

[2] Singh, M., Chakravarty, R., and Bhanotra, A. 2015. "Constraints Perceived by the Tribal Dairy Farmers of Ranchi, Jharkhand in Animal Health Care and Management Practices." *Indian Journal of Dairy Science* 68 (5): 519-21.

[3] Rathod, S. 2012. "A Study on Impact of Dairy Co-operative Societies in the Empowerment of Women-Success Story of Mulkanoor Women Co-operative Dairy." PhD Thesis, Sri Venkateswara Veterinary University, Tirupati.

[4] Bharwad, A. M., Bhadesiya, C. M., and Vaidya, A. C. 2016. "Ascertainment of Constraints Faced by Dairy Farmers for Adoption of Scientific Dairy Farming Practices in Anand District, Gujarat." *Life Sciences Leaflets* 74: 61-7.

[5] Malivad, Y. G., Bhatt, M. R., Dedun, V. S., and Naik, R. M. 2016. "Constraint Faced by Milch Animal Rearing Famers." *International Journal of Agricultural Sciences* 8 (22): 1448-9.

[6] Nagrale, B. G., Datta, K. K., and Chauhan, A. K. 2015. "An Analysis of Constraints Faced by Dairy Farmers in Vidarbha Region of Maharashtra." *Indian Journal of Dairy Science* 68 (4): 390-4.

[7] Meena, M. I., Dudi, A., and Sharma, N. K. 2013. "Constraints of Women Dairy Co-operative Societies in Adoption of Animal Husbandry Practices." *Asian Journal of Dairy and Food Research* 32 (2): 96-100.

[8] Ashraf, S., Iftikhar, M., Khan, G. A., Shahbaz, B., and Ashraf, I. 2013. "Performance Evaluation of the Dairy Farmers Regarding Adoption of Precise Dairy Farming Practices in the Punjab, Pakistan." *African Journal of Dairy Farming and Milk Production* 1 (3): 51-6.

[9] Narayan, L., Meena, G. L., and Upadhyay, B. 2014. "Constraints Analysis of Dairy Farming in Banswara District." *Indian Journal of Extension Education and Rural Development* 22: 81-4.

[10] Dhayal, B. L., Meena, J. P., Patel, M. L., and Mehta, B. M. 2015. "A Study on Knowledge and Adoption Level of Improved Animal Husbandry Practices by Milk Producer in Vadodara District of Gujarat." *Agricultural Update* 10 (2): 144-8.

[11] Ranuji, C. R. 2006. "A Study on Entrepreneurial Behaviour of Dairy Farmers." PhD Thesis, University of Agricultural Sciences, Dharwad, India.