Indian Journal of Extension Education
Vol. 53, No. 1, 2017 (135-139)

Constraints Experienced by Dairy Farmers in Adoption of Improved Animal Husbandry Practices

Ashwar, B. K.[1], Ashwar K. B. [2] and Patel K.L. [3]

ABSTRACT

The major constraints experienced by the dairy farmers in adoption of improved animal husbandry practices were inadequate irrigation facilities for growing green fodder for animals (100 %), followed by non-availability of elite sires for breeding purpose in villages (97.5 %) and too much of repeat breeding through A. I.(96.4 %). The non-availability of expert services to treat repeat breeders(95 %), lack of knowledge about control measures of clinical and sub clinical mastitis(93.6 %) and infertility problems in dairy animals(93.3 %), non-availability of input for green fodder(92.8 %), were also major problems in adoption of improved animal husbandry practices. Measures suggested by the dairy farmers to overcome the barriers in adoption were to make provision of adequate water for fodder cultivation, improvement of skill of para- veterinarians and provision of required number of elite bulls for natural services at the village level. Regular training to dairy farmers, a competitive price for milk products, arrangement for fodder depots, heath services and timely vaccination were also some of the suggested important needs of dairy farmers.

Key words: constraints, improved animal husbandry practices, adoption, dairy farmers

INTRODUCTION

Though India possesses more than 14 per cent of world's cattle population and more than 56 per cent of world's buffalo population, it contributes only 18 per cent of world's total milk production (NDDB, 2014). Active implementation of various schemes and programmes to augment productivity of dairy animals has not attained the desired results. One of the reasons for this is non-adoption or partial adoption of modern dairy practices, which could be attributed to certain constraints at the end users' level. A sound knowledge of constraints can be helpful in formulating remedial measures. The purpose of this study was to bring to light the type of different constraints and the intensity with which the dairy farmer view them and to invite suggestions from the dairy farmers to overcome these constraints in future.

METHODOLOGY

The present study was conducted in Banaskantha, Sabarkantha, Mehsana, and Patan the leading milk producing districts of the state, ranking first, second and third, respectively in milk production in the state. These four districts were selected purposively as more than 32 per cent of the total milk produced in the state came only from these districts (Gujarat State A.H. Dept. 30th Survey Report-2013). Random sampling technique was used for selection of talukas, villages and the respondents. From each of the above districts two talukas were selected, from each taluka three villages were selected making a list of 24 villages and from each village fifteen respondents were selected making a list of total 360 respondents. The dairy farmers were contacted in person and were asked open-ended questions to enlist the constraints they faced in adoption of improved animal husbandry practices and also the suggestions they had in their mind to overcome these problems. The collected data was analyzed, tabulated and inferences were drawn accordingly.

RESULTS AND DISCUSSION

The major constraints reported by farmers ranked as per priority presented in Table 1, revealed that all the (100 %) dairy farmers stated inadequate or lack of irrigation facilities for cultivation of green fodder for animals as the main constraint. Breeding related problems like non-availability of elite sires for breeding purpose in villages (97.50 %) and too much of repeat breeding due to faulty Artificial Insemination (96.40 %) were also

[1.] Associate Professor and Principal, Polytechnic in Veterinary Science and A.H., Sardar krushinagar Dantiwada Agricultural University (SDAU), Sardarkrushinagar, Banaskantha [2.] M.Sc. Scholar, Department of Food Science and Nutrition , Aspee College of Home Science and Nutrition. , SDAU, Sardarkrushinagar. [3.] Veterinary officer, Department of Animal Husbandry, Gujarat.

reported by farmers. High price of feed and fodder, comparatively low rate of milk and milk products and non-availability of good producing dairy animals were also felt as important barriers for dairy farming. Lack of knowledge about importance of washing udder before and after milking constrained about 80 per cent of the workers.

Table 1: Constraints experienced by dairy farmers in adoption of improved animal husbandry practices.

n = 360

Major areas of Constraints	No. of Respondent	Percent of Respondent	Rank
Breeding Constraints			
Non -availability of elite sires for breeding purpose in villages.	351	97.5	I
Repeat breeding due to faulty A.I. techniques.	347	96.4	II
Non-availability of expert services to treat repeat breeders.	342	95.0	III
Lack of proper guidance to ove rcome Infertility and reproduction related problems in dairy animals.	336	93.3	IV
Delay in getting A.I. services at doorstep.	327	90.8	V
Difficulty in taking estrous animals to AI centers because of long distance of A.I centers.	253	70.3	VI
Non-availability of AI services at AI center in afternoon hours and on holidays.	237	65.8	VII
Feeding Constraints			
Inadequate or lack of irrigation facilities for cultivating green fodder for animals.	360	100	I
Non-availability of improved seed and other inputs for green fodder production.	334	92.9	II
High cost of feed and fodder for dairy animals.	288	80	III
Awareness for scientific dairy farming Constraints			
Lack of knowledge about control measures of clinical and sub clinical mastitis.	337	93.6	I
Notion that animals need water only once or maximum twice a day.	334	92.8	II
Lack of knowledge about importance of providing inexpensive but comfortable housing.	327	90.8	III
Lack of knowledge about importance of washing udder before and after milking for udder health.	288	80	IV
Inadequate training facilities for dairy farm women and dairy farmers.	255	70.8	V
Non-availability of high yielding crossbred animals.	252	70	VI
Non-availability of high yielding buffaloes.	227	63.1	VII
Lack o f knowledge about maintaining records on breeding, milk marketed and other expenditure incurred.	219	60.3	VIII
Health Care Constraints			
Lack of knowledge about importance of deworming in dairy animals.	279	77.5	I
Cost of medicine and charges of services are very high.	259	71.9	II
Indifference about the vaccination as prophylactic measures against contagious diseases.	240	66.6	III
Treatment facilities were not readily available in the village.	198	55	IV
Marketing Constraints			
Prices of milk and milk products are comparatively low.	259	71.9	I
Lack of appreciation and recognition in terms of cash or kind on hygienic milk production.	216	60.0	II

Constraints experienced in adoption of breeding practices:

Non -availability of elite sires for breeding purpose in villages was reported by 97.5 per cent respondents and ranked first. Repeat breeding due to faulty A.I. techniques, non-availability of expert services to treat repeat breeders and lack of proper guidance to overcome Infertility and reproduction related problems in dairy animals were reported by 96.4, 95 and 93.3 per cent of the respondents and ranked 2nd, 3rd and 4th, respectively. Delay in getting A. I. services at doorstep and Difficulty in taking estrous animals to AI centers because of long distance of A.I. centers in addition to to the non-availability of AI services at A.I. center mostly in afternoon hours and even on holidays were also the some of the problems encountered by farmers.

The herd strength per farmer is not sufficient to maintain their own bulls and the professional bull keepers and bull service providers mostly belonged to the landless labour categories and have very poor socio-economic condition. They hardly have any knowledge about the importance of genetic makeup of bull and hence do not keep progeny tested bulls or pedigreed bulls. This is the reason for non-availability of good sires for natural service. Secondly, we do not have the policy for castration of scrubbed bulls due to which farmers get their animals served through any available bull. The Artificial Insemination (A. I.) workers mostly hailing from dairy cooperatives had under gone 30-45 days training which was insufficient to perform A.I. with perfection and skill. They had very rare chance to undergo quality refresher training to improve their skill and knowledge. It is observed that these people mostly indulged themselves in treatment of animals for more remuneration both in terms of cash and popularity or prestige (like to be called a doctor) and provided less attention to A. I. or improving skill for A. I.. This might be the reasons for more number of repeat breeding problems through A. I. Acute Shortage of trained veterinarian is there, number of veterinary dispensary were vacant or looked after by in charge officers. In addition, the dairy and animal husbandry extension network is still in an infant stage. There was also an inadequate number of A. I. experts resulted in delay in getting services of A. I. at their doorstep. More over the oestrous animals are hypersensitive, taking them to A.I. centre from field or home was also a problem. The A. I. workers at their center performed A.I. mostly in morning hours and in afternoon they attended field visits was the reason of non-availability of A. I. workers at the center in after noon hours. These could be reasons for out come reported breeding constraints.

Constraints experienced in adoption of feeding practices:

Inadequate or lack of irrigation facilities for cultivating green fodder for animals, non-availability of improved seed and other inputs for green fodder production and high cost of feed and fodder for dairy

animals were the three major constraints reported by 100, 92.8 and 80 per cent farmers and ranked 1st ,2nd and 3rd respectively. North Gujarat is frequently facing the problem of low rainfall and sometimes draught. Water is a major constraint for growing green fodder for animals, which they considered as a serious bottleneck for dairy industry. Moreover, dairy farming is a major source of livelihood in North Gujarat so feed and fodder were always in high demand and due to shortage the prices of feed and fodder were very high in these areas. Feed and fodder was one of the worst addressed areas of research in the field of veterinary science and animal husbandry even from farmers' side there was less awareness on this aspect, so quality seed and other input were always a problem.

Constraints experienced in (getting) awareness on scientific dairy farming practices:

Lack of knowledge about control measures of clinical and sub clinical mastitis was reported by 93.6 per cent of respondents and ranked first. The notion that animals need water only once or maximum twice a day, lack of knowledge about importance of providing inexpensive but comfortable housing and lack of knowledge about importance of washing udder before and after milking for udder health was reported 92.8, 90.8 and 80 per cent of respondents and ranked second, third and fourth respectively. Inadequate training facilities for dairy farm women and dairy farmers(70.8), non-availability of high yielding crossbred animals(70.0), non-availability of high yielding buffaloes(63.1), and lack of knowledge about maintaining records on breeding, milk marketed and other expenditure incurred(60.8), were ranked 4th, 5th, 6th, 7th, 8th, 9th, and 10th, respectively.

Farmers were not aware of the losses due to subclinical mastitis, need for udder hygiene for control of subclinical & clinical mastitis. It was also felt that there was no information or trusted regulated market to get high yielding cows-buffaloes. Recording keeping part was totally missing; farmer did not perceived dairy farming as a business-industry. They were offering water only once or twice in a day, did not know the adverse effect of irregular and inadequate supply of quality water on production performance of dairy animals. Training component was almost lacking no farmers had undergone any kind of training on scientific dairy farming.

Regarding awareness towards scientific and improved animal husbandry practices, the farmers had least exposure to mass media, minimum contacts with extension workers and less or no participation in extension meetings may be due to the lack leisure time available with them, some time the time of extension meeting also clashed with their routine activities. They even did not have knowledge of the economic losses they had incurred and were incurring due to faulty management practices or having not followed the recommended practices. Hence, there was a need for involvement of farmers to have more awareness about improved dairy farming practices.

Constraints experienced in adoption of health care practices:

Lack of knowledge about importance of deworming in dairy animals was reported by 77.5 and ranked first. The cost of medicine and charges of services are very high, lack of knowledge of importance of vaccination as prophylactic measures against contagious diseases and treatment facilities were not readily available in the village were reported by 71.9, 66.7 and 55 per cent of respondents and ranked second, third and fourth, respectively among the health care constraint. The cost of medicines and treatment charges was also very high which sometimes rose beyond the common-man's reach. Since animal farming was the major source of livelihood, they had no option than to spend any cost for treatment. Since the farmers were less aware and more ignorant of preventive measures, they did not consider its importance seriously. Government dispensaries rendered services at free of cost or at very nominal fees but taking animal to dispensary was very difficult and risky, even the doctors may not be available at dispensary all the time. The cooperative dairies were also very active in these areas and provided veterinary services to its member farmers at their doorstep at affordable charges. These services were very economical as dairy cooperatives charged minimum- token fees. However, the cooperative doctors were less popular and less trusted among farmers, because they were generally fresh graduates with less field exposure. Lack of facilities for readily available treatment was reported as least felt constraint by respondents (55 %). This may be due to good veterinary services provided by the cooperative dairies concerned, state veterinary hospitals of the areas, First Aid Veterinary Centers (FAVCs) and may only have been stated due to the time taken by the veterinarian from the dairy-center to the farmers' residence.

Constraints experienced in adoption of marketing practices:

Marketing of milk was not a problem for farmers because of well-established cooperative set up in North Gujarat but remunerative price was the issue. Nearly 72 per cent of farmer were of opinion that price of milk was comparatively low. This might be due to the fact that there was great hike in price of concentrates, roughages,

medicines and other dairy inputs, in comparison the increase in milk price by dairy cooperatives was felt inadequate by farmers. Secondly to produce hygienic milk costed much in turns cooperatives paid nothing additional to farmers, only due the price policy of cooperative dairies. There was no provision of premium price for quality- hygienic milk. Price was decided only on fat and solid not fat content of milk. The findings are in line with those reported by Dixit and Narwal (1991), Sheela and Sundara Swami (1994), Thorat and Kulkarni (1994), Shinde *et. al.* (1998) and Bindu *et. al.* (2001).

Suggestions from dairy farmers:

An attempt was made in this study to know the views of dairy farmers for the solution of their problems in dairy farming. The respondents were asked to suggest the possible solutions they considered necessary to overcome the constraints associated with adoption of improved animal husbandry practices and these suggestions ranked in order are depicted in Table. 2.

Table 2: The important suggestions of dairy farmers to overcome the constraints in adoption of improved animal husbandry practices.

n = 360

Suggestions	No. of Respon Dent	Percent of Respon dent	Rank
Provision of irrigation facility should be there from Government side for cultivating green fodder for animals.	360	100	I
Required number of elite bulls should be made available in villages and should be replaced from time to time.	307	85.3	II
Lay inseminators of village milk co -operative societies should be given extensive training to improve knowledge and skill for better result of artificial insemination.	305	84.7	III
Livestock inspector of state animal husbandry department may be given training for success of artificial insemination and reduction in reproductive disorders.	284	78.9	IV
Expert services should be made readily available at village level to treat the repeat br eeding and anoestrous animals.	277	76.9	V
Dairy farmers should be given training on the aspects of mastitis control, importance of timely vaccination, deworming and management and health aspects.	273	75.8	VI
Training should be made available at village or at Taluka level.	270	75	VII
Remunerative prices for milk and milk products should be provided.	264	73.3	VIII
Veterinary services should be made available at village level and that to at affordable price.	234	65.0	IX
Fodder storage depot sho uld be there from government side and at the time of drought, government should provide feed and fodder to dairy farmers for their animals on rationing basis.	231	64.2	X
Mastitis control measures should be there at every village level through Dairy co-operatives or ICDP work.	213	59.2	XI
Advisory services for purchase of high yielding crossbred animals and high yielding buffaloes should be made available for dairy farmers.	180	55.0	XII
Provision should be there for timely vaccination at doorstep.	196	54.4	XII
Provision of incentive for production of hygienic milk should be there.	187	51.9	XIV

The suggestions, it could be concluded that irrigation facility for growing fodder was the first and prime requirement of dairy farmers as most farmers were facing the problem of high price of feed and fodder and lack of irrigation facility for its production at their own field. Secondly, the anoestrous or repeat breeding was a major roadblock in the success of dairy farming and is truly reflected in suggestions like improvement of skill of lay inseminators and provision of required number of elite bulls for natural services at village level. Lack of knowledge and desire for improvement is also reflected in the suggestions of the need for training of dairy farmers. Around 73 per cent of the farmers demanded payment of competitive prices for their products. In famine conditions, feeding livestock became a severe threat for the dairy farmers and to tide over the problems faced, arrangement for fodder depots were needed. Health services were also a matter of concern and demand for timely vaccination at doorstep and treatment at affordable prices were also needed.

There existed a gap between knowledge level and extent of improved animal husbandry practices' adoption, which necessitated the need for imparting training to the dairy farmers to bridge the gap between knowledge level and extent of adoption. Role of livestock inspectors in improving the adoption must also be examined. Training needs of lay inseminators of village milk co-operative societies for improving the adoption level was worth assessing. Practice wise knowledge level and extent of adoption may also be studied to find out the practices needed to be concentrated for encouraging adoption. Due to the wide gap between the recommendations of scientists and practices of dairy farmers, the reception granted to the innovations has not been encouraging. The various constraints discussed in the present study may be deemed to held back the wide scale adoption of improved animal husbandry practices. On the basis of the constraints reported by dairy farmers corrective measures should be taken up to popularize the innovations among the dairy farmers. Suggestions from dairy farmers definitely plays an important role and should be given due consideration while formulating the strategies for expansion of dairy farming.

CONCLUSION

Any activity whether of a single individual or a group, whether in private or public sector, whether concerning social, political, religious or economic matters is never without some sort of ordinary, moderate or acute constraint. If one considers dispassionately, even the most successful act is seldom without the existence of

constraints, hurdles, roadblocks or difficulties. It could at the best be said, in this context that, if we want our activity to be a great success, the possible barriers/hurdles/ problems/impediment should be envisioned in advance and appropriate action should be taken to eliminate or minimize their influences. It is not considered enough to merely cite the constraints, but the real purpose is to bring about consciousness and realizations for dealing with them on the basis of further knowledge. The suggestions of the farmers also give us an idea about their needs and how they expect the scientists and research workers to solve them. Just like fore-warned is fore-armed, the knowledge about constraints and farmers suggestions can make the policymakers and implementers of the programmes, wise and confident to minimize, if not completely eliminate, these constraints.

Paper received on : July 14, 2016
Accepted on : July 25, 2016

REFERENCES

Bindu, P., Sharma, F .L. and Panwar, J. S. 2001. Constraints encountered by farmwomen in management of dairy animals in southern Rajsthan. *Indian Dairyman.* 53(7):53-57.

Dixit, V.B., Narwal, R.S. and Shethi, N. 1991. Farmer's knowledge and attitude towards management practices in buffaloes. *Maharashtra Journal of Extension Education.* 9: 174-177.

GSAHD, 2013. 30th Survey Report on estimation of major livestock products 2012-13. Directorate of Animal Husbandry, Gujarat State., Gandhinagar-382010. Gujarat, India.

NDDB, 2014. Annual Report NDDB, 2013 -2014. Published by National Dairy Development Board. PB No 40, Anand, 388001, Gujarat, India. Telephone: (02692) 260148/260149/260160, Fax: (02692) 260157, E-mail: anand@nddb.coop

Sheela, B. and Swami Sundara 1994. Problems of dairy practicing women. *Maharashtra Journal of Extension Education* 13:295-296.

Shinde, V. G., Sangle, G .K. and Dikle, R.N.1998 Adoption of improved dairy practices by dairy farmers. *Maharashtra Journal of Extension Education* 17:144-151.

Thorat, D. R. and Kulkarni, B. R. 1994. Constrians faced by the dairy farmers. *Maharashtra Journal of Extension Education*13:305-306.