

Impact of specialized trainings of dairy farming on the knowledge level of farmers in Punjab

■ APARNA AND J.S. HUNDAL¹

Members of the Research Forum

Associate Author :

¹Department of Animal Nutrition,
Guru Angad Dev Veterinary and
Animal Sciences University,
LUDHIANA (PUNJAB) INDIA

AUTHOR FOR CORRESPONDENCE :

APARNA
Krishi Vigyan Kendra, ROPAR
(PUNJAB) INDIA
Email : aparnapau@gmail.com

Abstract : To evaluate the effectiveness of specialized trainings on dairy farming, 120 farmers were interviewed with a pre-tested questionnaire before the start and after completion of training. The study revealed that age-wise respondents were uniformly distributed among all age groups and out of which 17.5 per cent respondents were graduates. Only 9.2 per cent of the farmers belonged to high level knowledge category before training whereas after training 60.0 per cent ($P < 0.01$) of farmers possessed high level knowledge. The awareness perceived by farmers about breeding, feeding and management was significantly ($P < 0.05$) higher after training. About 5.2 ± 0.18 and 13.0 ± 0.16 responses of farmers were found correct pre training and post training, respectively. Therefore, from present study it may be concluded that specialized training is an effective tool to improve the knowledge and understanding of farmers about dairy farming.

Key words : Perceived effectiveness, Dairy farming, Knowledge level, Trainings

How to cite this paper : Aparna and Hundal, J.S. (2016). Impact of specialized trainings of dairy farming on the knowledge level of farmers in Punjab. *Vet. Sci. Res. J.*, 7(2) : 79-82, DOI : 10.15740/HAS/VS RJ/7.2/79-82.

Paper History : Received : 20.05.2016; Revised : 17.08.2016; Accepted : 04.09.2016

INTRODUCTION

Dairy industry in India has made significant progress after independence with milk production in the country growing at the rate of 4 per cent to 5 per cent per annum and shooting from 55.7 MT in 1991-92 to 132.4 MT in 2012-13 (NDDB, 2014). This growth has placed India as the largest producers of milk in the world. It is rather unfortunate that despite being one of the world's largest milk producing countries, the per capita availability is among the lowest in the world, 290 g per person 2011-12 (NDDB, 2014). In Punjab the situation is better than some of other states as per capita availability here is 945g/day. But, Dairy sector in Punjab is still being governed by small and marginal level dairy farmers. As per USDA report India targets to take to 140MT in 2014 (Economic Times, 2013). The need of hour is to make efforts to improve the productivity of dairy cattle by encouraging better health management practices, These practices must ensure that the milk and milk products produced are safe and suitable for their intended use, and also that the dairy farm enterprise is viable into the future, from the economic, social and environmental perspectives.

In order to meet above objectives need for knowledge and skill based training is recognized in specific areas like identifying the symptoms of contagious diseases, source of micro-organisms, use of disinfectants, disease control and preventive vaccination (Vimal Raj Kumar, 2003 and Lalitha and Seethalakshmi, 1999).

Krishi Vigyan Kendra Ropar (Punjab) is a grass root level extension institute governed by Punjab Agricultural University, Ludhiana regularly organizes trainings to educate the unemployed youth, farmers and farm women of Punjab about profitable livestock farming *viz.*, dairy, poultry, dairy, Piggery and fisheries, etc. Training is an integral and critical input for the human development for bringing out desirable changes in human knowledge (Biswas *et al.*, 2008). Success of such trainings will be dictated by the perceived effectiveness whether these improve farmers' knowledge and understanding about technical aspects of livestock farming or not. So an effort has been made to study the training impact. This article presents the results of a study designed to assess the impact of specialized trainings of dairy farming on knowledge level of farmer.

RESEARCH METHODOLOGY

The present study was conducted on the farmers from different areas of Punjab who attended the specialized trainings on dairy farming organized by Krishi Vigyan Kendra, Ropar (Pb) between July 1st 2011 to Jan 31st 2015. One hundred twenty farmers were interviewed with a pre-tested questionnaire before the start and after completion of training and results were prepared to know the perceived effectiveness of training. A set of 20 knowledgeable items, containing information on different aspects of dairy farming were presented to the respondents. The information about independent variables *viz.*, age and education was collected with the help of structured schedule and scales. Each correct response was given a score of one. Gain in knowledge was assessed by obtaining the difference between the knowledge levels at pre-exposure and post-exposure stages of the training. The data were analyzed by ANOVA (Snedecor and Cochran, 1994) by using the software package SPSS version 16 (SPSS, 2007).

RESULTS AND DISCUSSION

The study revealed that respondents were uniformly distributed among three age groups *i.e.* 31.7 per cent trainees belonged to 18-31 age group, 36.7 per cent trainees belonged to 32-45 years and 31.7 per cent belonged to 46-60 years age group. Out of total respondents about 30.0 per cent were educated upto primary and 52.5 per cent farmers were entered in this profession after clearing their 10th examination and 17.5 per cent respondents were graduates.

The data regarding knowledge level of farmers about dairy farming (Table 1) revealed that 70.0 per cent of the farmers belonged to low, 20.8 per cent of the farmers belonged to moderate and only 9.2 per cent of the farmers belonged to high level knowledge category before training whereas after training 60.0 per cent ($P < 0.01$) of farmers possessed high level knowledge (Table 1) which indicated that training is an effective tool to improve the knowledge level of farmers significantly. The results were agreed with Sharma *et al.* (2014) where average knowledge score of the trainees increased from 4.44 to 6.32 after training. Similarly Ashraf *et al.* (2012) also reported significant ($P < 0.01$) improvement in the knowledge level of the participants after attending the training.

The data highlights (Table 2) that the knowledge of farmers about breeds of cattle, Artificial insemination and Embryo Transfer Technology had low (52.5, 9.2 and 10.0%, respectively) before training whereas it was significantly ($P < 0.05$) higher after they got training (87.5, 83.4 and 71.7%, respectively).

Table 1 : Knowledge level of farmers regarding dairy farming				
Knowledge level	Frequency (n=120)		Per cent	
	Pre training	Post training	Pre training	Post training
Low	84.0 ^b	20.0 ^a	70.0	16.67
Moderate	25.0	28.0	20.84	23.34
High	11 ^a	72.0 ^b	9.17	60.00

Figures with different superscript in a row differ significantly, $P < 0.01$

Table 2 : Impact of dairy farming training on knowledge level of farmers regarding different aspects of dairy farming

Sr. No.	Statements	Frequency		Per cent	
		Pre training	Post training	Pre training	Post training
1.	Breeds used in India for commercial dairy farming	63 ^a	105 ^b	52.5	87.5
2.	Colostrums feeding of new born calf	36 ^a	56 ^b	30.0	46.7
3.	What is the composition of calf starter?	11 ^a	73 ^b	9.2	60.8
4.	Age at which calves should be disbudded	54 ^a	96 ^b	45.0	80.0
5.	Do you know about artificial insemination	11 ^a	100 ^b	9.2	83.4
6.	Do you know about Embryo transfer technology	12 ^a	86 ^b	10.0	71.7
7.	How much mineral mixture is recommended in 100kg of concentrate mixture	47 ^a	83 ^b	39.2	69.2
8.	Feeding of different categories of dairy animals	36 ^a	113 ^b	30.0	94.2
9.	Knowledge regarding direction and dimensions of shed	36 ^a	84.5 ^b	30.0	70.8
10.	Knowledge about udder hygiene	23 ^a	101 ^b	19.2	84.2
12.	Recommended deworming schedule of dairy animals	23 ^a	100 ^b	19.2	83.4
13.	Knowledge of vaccination schedule	66 ^a	117 ^b	55.0	97.5
14.	Common diseases in cattle	11 ^a	88 ^b	9.2	73.4
15.	Name the disease that can cause abortion in cows	13 ^a	88 ^b	10.8	73.3
16.	Name the diseases of zoonotic importance in dairy animals	11 ^a	73 ^b	9.2	60.8

Figures with different superscripts in a row differ significantly, P<0.05

As balanced and economical feeding is the base of a successful dairy farming, the study of knowledge of farmers regarding feeding practices of dairy animals indicated that only few farmers knew about feeding of different categories of dairy animals (30 %), colostrums feeding (30%), composition of calf starter (9.2 %) and use of mineral mixture (39.2%) before training. However, after training 30.0 per cent, 46.7 per cent, 60.8 per cent and 69.2 per cent of farmers had awareness about feeding of different categories of dairy animals, colostrums feeding, composition of calf starter and use of mineral mixture in dairy animals, respectively. The differences in pre and post training responses were significant (P<0.05). Kumar *et al.* (2013) also found highly significant difference (P<0.01) in the knowledge level of the respondents on cattle feed computation before and after training. Similarly Sharma *et al.* (2014) also reported significant (P<0.01) improvement in farmers' knowledge of feed management score (3.64 to 6.39) after attending training on dairy farming.

The poor knowledge of farmers (Table 2) direction and dimensions of shed (30 %), age of disbudding in calves (45 %) and udder hygiene (19.2 %) before training was significantly (P<0.05) improved by training.

The awareness perceived by farmers regarding common diseases of dairy animals (9.2 vs 73.4%), vaccination schedule (55.0 vs 97.5%), deworming schedule (19.2 vs 83.4%) and abortion due to diseases (10.8 vs 73.3%), were significantly (P<0.05) higher after training as compared to before training. Only 9.2 per cent farmers having awareness about zoonotic diseases before pre exposure that was improved significantly (60.8 %) post training. Biswas *et al.* (2008) also reported that there was a significant difference in knowledge of respondents on deworming, artificial insemination and vaccination as a result of training.

Critical study of data revealed that 5.2 ± 0.18 and 13 ± 0.16 responses of farmers were found correct pre training and post training, respectively that may be due to effect of training on knowledge level of farmers. Similar results were also obtained by Vidya *et al.*, 2010 where pre exposure mean score was 7.98 and post exposure mean score was 14.91. Noor and Doha (2011) also concluded that training had positive impact to the farmer's perception and performance. The reason for higher knowledge of the trained respondents might be due to appropriateness of the covered subject matter, practical training environment, use of multimedia teaching aids, experienced experts and exposure visit at dairy farm etc. Higher interest of trainees and availing of opportunity to discuss their doubts with specialists may be another possible reason for their improved knowledge level.

Conclusion :

The scientific knowledge about any enterprise is crucial for its success. The present study revealed that there is a highly significant ($P < 0.05$) improvement in the knowledge of dairy farmers on various aspect of dairy rearing traditionally as well as scientifically. Therefore, from present study it may be concluded that specialized training is an effective tool to improve the knowledge and understanding of respondents about dairy farming but it is suggested that regular training programme must be made compulsory for the development of the interest and knowledge of dairy farmers to updates them with latest trends and research in dairy farming.

LITERATURE CITED

Ashraf, E., Hayat, Z., Khan, M.Z.U., Samiullah, Atif M.A. and Haider, M.S. (2012) Impact of dairy farm management training workshop on the knowledge level of participants *Internat. J. Agric. Appl. Sci.*, **4**(2): 86-89

Biswas, S., Sarkar, A. and Goswami, A. (2008). Impact of KVK training on advance dairy farming practices in changing knowledge and attitude of Prani- Bandhu. *J. Dairying Foods Home Sci.*, **27**(1): 43-46.

Chandrashekar, B.R., Lakshminnarayan, M.T., Krishnamurthy, B. and Shivaramu, K. (1998). Rabies: factors influencing the knowledge of veterinarians. *Mysore J Agri. Sci.*, **32** : 225-28.

Kumar, R.B., Baskaran, D., Saraswathi, S., Theophilus, C. and Kumar, A. (2013). Impact of training program in adoption of cattle feed computation by farmer interest groups of Tamil Nadu. *Tamil Nadu J. Vet. & Animal Sci.*, **9** (4): 264 – 271

Lalitha, N. and Seethalakshmi, M. (1999). Decision making behavior of women in dairy sector – A micro study”. Master of Veterinary Science Thesis, College of Veterinary and Animal sciences, Kerala Agricultural University, Thrissur 680651

Noor, K.B.N. and Doha, K. (2011). Investigating training impact on farmer’s perception and performance. *Internat. J. Hum. Soc. Sci.*, **1**(6): 145-152.

Sharma, M., Singh, G. and Keshava (2014). Impact evaluation of training programmes on dairy farming in Punjab State. *Indian Res. J. Ext. Edu.*, **14**(1):105-108

Snedecor, G.W. and Cochran, W.G. (1994). *Statistical methods*. 8th Ed. Oxford and IBH Publications, New Delhi.

SPSS (2007). Statistical packages for Social Sciences. Ver. 126, SPSS Inc., Illinois, USA.

Vidya, P., Manivannan, C. and Kumar, N.K. Sudeep (2010). The effectiveness of an educational interactive video- DVD on dairy health management practices in terms of knowledge gain among dairy. *J. Rural Res. & Policy*, **5** (7) :

Vimal Raj Kumar, N. (2003). Training needs of dairy farm instructors of the dairy development department of Kerala”. Master of Veterinary Science Thesis, College of Veterinary and Animal sciences, Kerala Agricultural University, Thrissur 680651.

WEBLIOGRAPHY

Economic Survey (2014). India logs record milk production in FY’13By PTI | 9 Jul, 2014, 03.16PMIST <http://economictimes.indiatimes.com/>

Milk production in India (2014). www.nddb.org

7th
Year
★ ★ ★ ★ ★ of Excellence ★ ★ ★ ★ ★