



ISSN: 2456-2912

VET 2023; SP-8(3): 30-32

© 2023 VET

[www.veterinarypaper.com](http://www.veterinarypaper.com)

Received: 08-05-2023

Accepted: 12-06-2023

**Gagandeep Singh**

Regional Research and Training  
Centre, of Guru Angad Dev  
Veterinary and Animal Sciences  
University, Talwara, Hoasharpur,  
Punjab, India

**Rakesh Kumar Sharma**

Regional Research and Training  
Centre, of Guru Angad Dev  
Veterinary and Animal Sciences  
University, Talwara, Hoasharpur,  
Punjab, India

**Hujaz Tariq**

Regional Research and Training  
Centre, of Guru Angad Dev  
Veterinary and Animal Sciences  
University, Talwara, Hoasharpur,  
Punjab, India

**Corresponding Author:**

**Gagandeep Singh**

Regional Research and Training  
Centre, of Guru Angad Dev  
Veterinary and Animal Sciences  
University, Talwara, Hoasharpur,  
Punjab, India

## Impact of training on knowledge and awareness levels of dairy farmers in Kandi Area of Hoshiarpur District of Punjab

Gagandeep Singh, Rakesh Kumar Sharma and Hujaz Tariq

DOI: <https://doi.org/10.22271/veterinary.2023.v8.i3Sa.599>

### Abstract

In order to assess the knowledge level of dairy farmers and to study the impact of training on the awareness levels of dairy farmers of the Kandi area of Punjab. A total of around 110 farmers were randomly selected and were interviewed by using a previously prepared questionnaire. All these farmers were provided trainings and were again assessed after a gap of around one year after the completion of training. In the training, lectures were delivered to them on the various management, reproductive, health and nutritional aspects of dairy farming. In the pre-training survey, it was seen that most of the farmers are having very less knowledge about the scientific methods of dairy farming leading to the losses in the dairy farming. Almost all the farmers were practicing colostrum feeding to the newborn calves only after shedding of placenta of animals due to which calf mortality was reported. Similarly, there was very less knowledge to the farmers about the importance of balanced feeding, green fodder and mineral mixture supplementation for the dairy animals. Among the reproductive problems, anestrus and repeat breeding were the major problem reported by the farmers. Among these farmers, a major group of farmers have now started feeding mineral mixture to their animals. About 25 per cent of the farmers were not following any proper hygienic practices during milking which improved significantly post-training. Overall, the farmers have reported an improvement in the productivity of their animals after adopting the scientific methods of dairy farming.

**Keywords:** Kandi area, Punjab, awareness, dairy farming, impact, training

### 1. Introduction

Kandi area is predominantly agricultural, with farming being the primary occupation for the local population. Dairy farming and animal husbandry also play a significant role in the livelihoods of the people. However, various challenges such as small and marginal landholdings, and undulating terrain with lesser water availability often results in low fodder production resulting in suboptimal agricultural productivity and therefore limiting the economic opportunities for farmers (NAIP, 2014) [6]. Further, in this area majorly the livestock farmers are having limited modern scientific know-how, various misconceptions about the modern livestock-rearing practices and minimal available resources at farms often resulting in low production and economic returns (Singh *et al.*, 2019) [9]. Therefore, there is need for spreading awareness of modern scientific knowledge and interventions among the dairy farmers which can be attained by conducting various specialized dairy farming training for these farmers on the need basis involving the proper assessment of the farmers before and after training them. Lastly, it is also necessary to assess the adoption levels among the trainee farmers after conducting the training for assessing the future challenges and needs of these farmers. Therefore, the present study was conducted to assess the impact of training on the awareness levels of dairy farmers of the Kandi area of Punjab.

### 2. Materials and Methods

The present study was conducted on the trainees of District Hoshiarpur who attended various training programs on dairy farming at Regional Research and Training Center Talwara, Guru Angad Dev Veterinary and Animal Science, Ludhiana Punjab during years 2019 to 2021.

All the Trainee farmers (N=110) were asked various questions from a thoroughly prepared questionnaire before the various training programs. After the successful conduction of trainings, the farmers were again reassessed after one year to see the impact on knowledge and awareness among the farmers. The training was majorly done in the form of lectures conducted at various villages alongside a few on-farm practical demonstrations on farmers' doorstep with a group of farmers. The questions were broadly divided into four different categories *viz.* Udder management, feeding management, disease prevention and reproductive

management. The data were collected, evaluated and presented using frequencies and percentages as statistical measures for its interpretation.

### 3. Results and Discussion

The results pertaining to the impact of various trainings on knowledge awareness on a different aspect of dairy farming has been presented in Table 1. Overall, the result indicated an increase in the awareness level of knowledge among the trainees post-training and is discussed below under different subheadings.

**Table 1:** Impact of dairy farming training on the knowledge level of farmers regarding different aspects of dairy farming

Parameter	Frequency		Percentage	
	Pre-training	Post-training	Pre-training	Post-training
<b>Feeding management</b>				
Mineral mixture feeding to animals	33	79	30.00	71.82
Calf starter	5	33	4.55	30.00
Transition feeding	22	41	20.00	37.27
Importance of Green fodder	61	89	55.45	80.91
Silage preparation	4	18	3.64	16.36
Colostrum feeding before shedding of placenta	8	72	7.27	65.45
<b>Udder health Management</b>				
Full hand Milking	69	93	62.73	84.55
Udder hygiene/Mastitis	28	57	25.45	51.82
Importance of Dry period	39	72	35.45	65.45
<b>Disease management</b>				
Knowledge of Vaccination	35	65	31.82	59.09
Knowledge of Deworming	41	87	37.27	79.09
Diseases causing abortion	4	23	3.64	20.91
Zoonotic diseases and prevention	12	24	10.91	21.82
<b>Reproductive management</b>				
Proper time of Artificial insemination	56	81	50.91	73.64
Retention of placenta and management	22	47	20.00	42.73
Anoestrous causes and prevention	12	41	10.91	37.27
Reproductive record keeping	5	31	4.55	28.18

#### 3.1 Feeding Management

Feeding management is considered as the backbone of successful dairy farming considering the dependency of around 70% of the total cost on feed of livestock (Aparna and Hundal, 2016) [1]. It was observed that farmers have very little knowledge on feeding management before training. It was found that although a considerable number of farmers had knowledge about the importance of green forage (55.45%) but its availability was found limited due to lack of irrigation facilities as area primarily lies in semi-arid zone. The farmers had limited knowledge on silage making which did not improve even after training possibly due to limited fodder availability in the area. Further, very little farmers had knowledge about the feeding for different phases of animals like calf starter (4.55%) and transition feeding (20%) which improved by and 25 and 18% respectively post training. There was an average awareness among the farmers regarding the importance of mineral mixture (33%) in dairy animals which showed maximum improvement by around 42% post-training and farmers was found to use the university-prepared Mineral mixture after the training. Kavitha, *et al.* (2020) [5] also reported better knowledge on feeding management after training among dairy farmers.

Colostrum feeding is crucial for the health and development of new born calves. Colostrum is the first milk produced by the mother cow after giving birth. Calves should receive colostrum as soon as possible after birth. The first few hours are critical because the calf's ability to absorb antibodies from colostrum decreases rapidly after birth. Ideally, the calf

should consume colostrum within the first 2 hours after birth, and certainly no later than 6 hours. However, a common myth was observed in the area that the calves should be given colostrum only after shedding of placenta which often deprived calves with the colostrum during the crucial initial hours. The same showed a significant improvement of around 57% among the trainee farmers. The above findings corroborate well with Singh *et al.* (2019) [9].

#### 3.2. Udder Management

Udder health management is another crucial parameter for dairy cattle farming to ensure optimal milk production, prevent infections, and maintain overall cow health. Proper hygiene is essential to prevent udder infections. Before milking, thorough cleaning of udder and teats is important to prevent infections and only 26% of the farmers were found to follow the practice which improved to 51% after the training. Further, proper milking techniques are also important to minimize the risk of udder infections. During the training, the farmers were practically demonstrated the same and an improvement of around 22% was observed among the farmers. Lastly, proper care during the dry period is essential for udder health. Implementing a dry cow management program that includes proper nutrition, minimum 60 days dry period and regular udder hygiene is also necessary for better production and udder health. Trainees had an improvement of around 30% regarding the dry cow management. Chandawat and Singh, (2013) [3] and Rajappan, *et al.* (2014) [7] also found

similar results on knowledge improvement regarding udder health among farmers after training.

### 3.3. Disease Prevention and Control

Disease prevention and control are critical aspects of cattle management to ensure the health and well-being of the animals. Important practices and strategies for disease prevention and control in cattle generally include proper hygiene, vaccination, and deworming and zoonotic disease prevention. Vaccinations are vital for preventing infectious diseases in cattle. A proper vaccination schedule is very important. Similarly, deworming, also known as anthelmintic treatment, is also an important component of cattle management to control and prevent internal parasite infestations. Internal parasites, such as gastrointestinal worms, can negatively impact cattle health, growth, reproduction, and overall productivity. Lastly, Zoonotic diseases are infections that can be transmitted between animals and humans and therefore, need to be well managed on farm. Before training only 31, 38 and 11% of trainees had knowledge of vaccination schedules, deworming and zoonotic diseases which changed to 59, 79 and 21% respectively after the training. Biswas *et al.* (2008) <sup>[2]</sup> also found a significant change in the knowledge of respondents on deworming and vaccination after training. Similar finding was observed by Hari, *et al.* (2018) <sup>[4]</sup>.

### 3.4. Reproductive Management

Reproductive management is a critical aspect of dairy cattle management to maximize fertility, optimize breeding efficiency, and achieve a successful reproductive performance. Oestrus detection, timed artificial insemination, reproductive health monitoring, nutrition and body condition and reproductive record keeping are some key practices and considerations for better reproductive management of dairy cattle. Effective reproductive management is essential for achieving high conception rates, minimizing calving intervals, and maximizing the overall reproductive efficiency of dairy cattle herds. There was an improvement in knowledge of reproductive health management by 23 and 25% for timely artificial insemination and reproductive record keeping respectively. Rathod, *et al.* 2016 <sup>[8]</sup> also found similar findings regarding the knowledge reproductive improvement among the trainees.

### 4. Conclusion

The scientific knowledge level including feeding, udder health, reproductive management and disease prevention and control of dairy farmers was found to improve after the training. Therefore, there is need to conduct more such training programs in the area to enhance the productivity of dairy animals with better returns and know-how in the farmers.

### 5. References

1. Aparna, Hundal JS. Impact of specialized training in dairy farming on the knowledge level of farmers in Punjab. *Veterinary Science Research Journal*. 2016;7(2):79-82.
2. Biswas SA, Sarkar AS, Goswami A. Impact of KVK training on advanced dairy farming practices in changing knowledge and attitude of prani-bandhu. *Journal of Dairying, Foods and Home Sciences*. 2008;27(1):43-46.
3. Chandawat MS, Singh HP. Comparison of overall knowledge about improved agricultural practices of

wheat production technology of beneficiaries and non-beneficiaries farmers at KVK operational Area Banswara and Dungarpur districts of south Rajasthan. *Journal of Community Mobilization and Sustainable Development*. 2013;8(1):135-139.

4. Hari R, Kolekar DV, Shyam J, Sharma NK, Patel RK. Adoption of vaccination, deworming and artificial insemination practices by the farmers of Bareilly district of Uttar Pradesh and Solapur district of Maharashtra. *Inter. Journal of Livestock Research*. 2018;8(7):319-328.
5. Kavitha NV, Rajkumar V, Manokaran S. Knowledge level of dairy farmers in improved dairy farming practices. *International Journal of Science, Environment*. 2020;9(3):493-499.
6. NAIP. Final report: NAIP Component-3 Sub-project (Sustainable Livestock-based farming system for livelihood security in Hoshiarpur district of Punjab). Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana. 2014;4:91.
7. Rajappan V, Naik VR, Karthikeyan D. Knowledge level of farmers and extent of adoption of improved pigeon pea technologies in KVK adopted villages: An analytical study. *Journal of Food Legumes*. 2014;27(1):52-55.
8. Rathod P, Chander M, Sharma C. Adoption status of artificial insemination in Indian dairy sector: Application of multinomial logit model. *Journal of Applied Animal Research*. 2016;45(1):442-446.
9. Singh, G, Sharma RK, Verma HK, Singh J. Livestock Management Practices followed by Kandi Farmers of Hoshiarpur District of Punjab. *International Journal of Current Microbiology*. 2019;8(11):982-990.