

## **Knowledge Level of Dairy Farmers in Un-Adopted Villages of Krishi Vigyan Kendra about Scientific Dairy Farming Practices**

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### **Abstract**

*The study was carried out in six un-adopted villages of Krishi Vigyan Kendra, Bichpuri, Agra, Uttar-Pradesh to know the knowledge level of dairy farmers with respect to the different component of scientific dairy farming practices for the year 2011-12. Twenty farmers from each village constituting the sample size of 120 dairy farmers were included in the study. The study reveals that majority of dairy farmers had medium knowledge on different component of scientific dairy farming practices. But, very few dairy farmers had high knowledge about the scientific dairy farming practices which showed that different dairy development agency working in Agra district were not providing adequate knowledge about the scientific dairy farming practices to the farmers. The knowledge index of different aspect of scientific dairy farming practices of breeding, feeding, health care, management and fodder production were 33.18, 29.46, 34.70, 36.35 and 35.55 percent respectively and overall knowledge index of scientific dairy farming practices was 33.85 percent which indicates poor knowledge level of dairy farmers in the un-adopted village's of Krishi Vigyan Kendra.*

Key words: knowledge, Breeding, feeding, Health care, Management, Fodder production, Dairy farmer.

### **Introduction**

India is the highest milk producing country in the world. With 112 million tones of milk production during 2009-10 and estimated production of 116 million tons during 2010-11, undoubtedly India stands highest among the major milk producers of globe. Surprisingly it is more interesting that the national milk production has increased more than five folds from about 20 million tons in 1970 to 112 million tons in 2010. India has about 127million adult breedable female buffaloes and cows. Some 70 million rural households are engaged in milk production with a very high proportion being the small and marginal farmers and the landless. The nation's milk supply comes from millions of small producers, disbursed throughout the rural area. These farmers maintain on an average a herd of only 1-3 milch animals comprising cow/buffaloes (Bhasin, 2012). But, the major drawback of dairy sector in India is its low productivity. One of the major reasons of low productivity could be due to traditional dairy farming practices by the farmers. It is well recognized that for increasing productivity and production with aim to make dairy business more remunerative, it is essential

to go for adoption of scientific dairy farming practices in the field of breeding, feeding, health care, management and fodder production.

Numbers of improved technologies have been developed in the previous years in the field of dairying sector; however, these have not been successful in changing the socio-economic condition of farmers to desired level. This failure may be attributed to lack of intensive efforts to transfer the technologies from the scientific institution to the grass root level. Krishi Vigyan Kendra (KVK) is an innovative institution of ICAR under TOT programme which pay an important role for transfer of all feasible technologies in the field of agriculture and allied field from scientific institution to farmer's field level through various means like training to farmer, rural youth, farm women and extension functionary. Frontline demonstration, on farm trial, animal health camps, field days, farmers mela, technical week, farm advisory service other extension activities organized by KVK in the operational area/ adopted villages. KVK, Bichpuri, Agra was established in the year 2002 under administrative control of Raja Balwant Singh College, Agra, U. P., with aim to improve the socio-economic status of poor farmers in

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the Agra district.

In this context, it becomes pertinent to gather information from the farmers about knowledge on scientific dairy farming practices from the field level, which could help in formulating action plan as per need of farmers in the un-adopted villages of KVK, Agra. Similar to programmes organized by KVK, in the adopted villages. Hence, this study was carried out in the few un-adopted villages of Agra districts to ascertain the level of knowledge to prepare action plan in the experimental villages for their development in dairying sector.

**Materials and Methods**

The study was conducted in purposively selected un-adopted villages (non-operational area) of Krishi Vigyan Kendra (KVK), Bichpuri of Agra district for the year 2011-12. There are 15 development blocks in the district out of six which blocks with one village of each block namely, Nagla Heera Singh (Akola), Beerai (Sayia), Mewali (Jagnair), Naya Bass (Samsabad), Partappur (Fathehabad), Arjun ka pura (Pinahat) were selected for the study purpose. The list of KVK un-adopted villages in the selected blocks was obtained. First of all, a list of dairy farmers was prepared for the selected villages and randomly selected twenty dairy farmers in each village. In the total of 120 farmers were included randomly in the study. The data were accumulated relevant to survey with the help of a comprehensive well structured schedule by personally interviewing the farmer of selected villages. Knowledge levels of the farmers were measured with respect to the different component of scientific dairy farming practices as per scale developed by Verma (1993). To measure the knowledge level of farmers, farmer’s responses were recorded. The mean score and standard deviation for knowledge were calculated to categorize the respondents into three group viz.; low, medium and high knowledge. Knowledge index were determined by using formula given below:

$$\text{Knowledge Index} = \frac{\text{Obtained score}}{\text{possible score}} \times 100$$

The data were than classified, tabulated and statistically analyzed which led to the following results. Knowledge level of respondent are further categorized into low, medium and high for different component of scientific dairy farming practices like breeding, feeding, health care, management and fodder production.

**Result and Discussion**

The majority of respondents belong to medium level of knowledge in all the component of scientific dairy farming practices. In breeding aspect, 62.50% of respondent have medium knowledge, followed by 30% of respondent had low knowledge and only 7.50% of respondent had only high knowledge on breeding

aspect (Table 1). Similarly, majority of farmers have medium knowledge (60%) in feeding aspect, followed by high knowledge (12%) and low knowledge (28%) of scientific dairy farming practices. In health care, majority of farmers (65%) had medium knowledge, followed by 27 percent had low knowledge and 8 percent high knowledge, respectively. With respect to management practices, more than 67 percent dairy farmers had medium knowledge and only 7 percent dairy farmers had high knowledge in the study area. In the fodder production aspect, 67 percent of respondent have medium knowledge, followed by 23 percent of respondent had low knowledge and only 10 percent of respondent had only high knowledge on fodder production aspect.

Table 1: Distribution of respondents according to knowledge categories

Area	Number	Percentage
<b>Breeding:</b>		
Low	36	30.00
Medium	75	62.50
High	09	07.50
Total	120	100.00
<b>Feeding:</b>		
Low	34	28.00
Medium	72	60.00
High	14	12.00
Total	120	100.00
<b>Health Care:</b>		
Low	32	27.00
Medium	78	65.00
High	10	08.00
Total	120	100.00
<b>Management:</b>		
Low	31	26.00
Medium	80	67.00
High	09	07.00
Total	120	100.00
<b>Fodder Production:</b>		
Low	28	23.00
Medium	80	67.00
High	12	10.00
Total	120	100.00

Table 2: Distribut6ion of dairy farmers on the basis of knowledge level of scientific dairy farming practices (N=120)

Category	Frequency	Percentage
Low (below 32 score)	32	26.67
Medium (32 to 80 score)	78	65.00
High (above 80 score)	10	08.33
Total	120	100.00

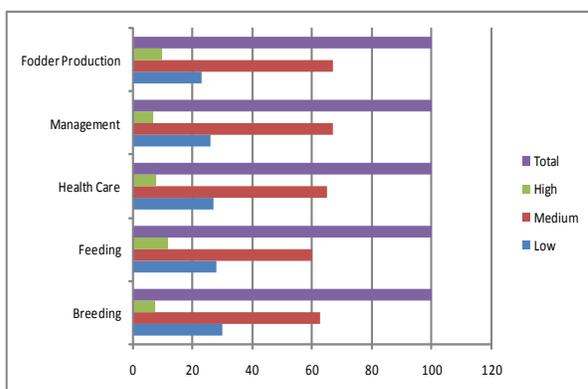
As overall knowledge level of scientific dairy farming practices is concern, as revealed from Table 2

that majority (65%) had medium knowledge, followed by 26.67% have low knowledge and 8.33% have high knowledge in the study area.

Table 3: Knowledge index of scientific dairy farming practices

Area	Knowledge Index (%)	Rank
Breeding	33.18	IV
Feeding	29.46	V
Health Care	34.70	III
Management	36.35	I
Fodder Production	35.55	II
Overall	33.85	

As evident from Table 3 that the knowledge index of different aspect of scientific dairy farming practices of breeding, feeding, health care, management and fodder production were 33.18, 29.46, 34.70, 36.35 and 35.55 percent respectively and overall knowledge index of scientific dairy farming practices were 33.85 percent. The result of investigation indicates knowledge levels of dairy farmers were found poor in the un-adopted village's of Krishi Vigyan Kendra. The study also indicated that different animal husbandry and dairy development agency/department working in Agra district was not improving knowledge of farmers about the scientific dairy farming practices to desired level. The results are comparable with the earlier studies under field condition (Arora et al., 2006, Aulakh et al. 2011, Kumar et al., 2011 and Meena et al., 2011).  
Figure 1: Knowledge level of respondents (in percent)



## Conclusion

It may be concluded that knowledge of scientific dairy farming practices in non-operational area (un-adopted villages) of Krishi Vigyan Kendra, Bichpuri, Agra (U. P.) is unsatisfactory for development in dairy sector. Therefore, Scientists (Animal Husbandry & Dairying), KVK, Bichpuri, Agra must periodically conduct training and awareness programmes with respect to vaccination, deworming, health, infertility aspect camps and breeding, feeding, health care,

management and green fodder production aspect training etc to boost their knowledge in the improved dairy farming practices. Besides this, KVK, should trainee the farmers in making low cost balanced ration and preparation desi mineral mixture from available resources in the area, transfer the scientific techniques for cultivation of green fodder and other fodder throughout the year by conducting frontline demonstration and on-farm trials to the farmers. Techniques of clean milk production, value added dairy products which are locally popular so that farmers in the study area improve their knowledge and try to adopt the recommended dairy farming practices. Moreover, mass media need to be utilized to a great extent for transfer of scientific dairy farming practices to the needy farmers in enriching their knowledge.

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