CORRELATES OF DAIRY FARMING KNOWLEDGE

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This study on dairy farming knowledge conducted in the villages of Karnal indicated that in all areas of dairy farming except in fodder production, the level of knowledge was significantly high in trained farmers than untrained ones. Further the study revealed that the selected Socio-psychological, communication and economic characteristics of the farmers namely farm size, education herd size, milk production, wheat production, communication exposure. ecnomic motivation and risk orientation had positive and significant correlation with the dairy farming knowledge. Out of these eight iudependent variables, communication exposure, risk orientation and wheat production explained 50 per cent of the total variation in the dairy farming knowledge.

The recent advances in agriculture science including dairying have provided immense opportunities for increasing crop as well as milk production. In order that farmers take advantage of new dairy technology, necessary changes need to be brought in their knowledge. The present study was aimed to find the differential knowledge of trained and untrained farmers of Krishi Vigyan Kendra villages of Karnal. Another objective was to determine the relationship as well as the contribution of selected personal traits to the knowledge of the farmers.

MATERIAL AND METHODS

In the persent investigation knowledge was operationalised as a body of understood information possessed by the respondent regarding scientific dairy farming practices, such as breeding, feeding, fodder production, management and health care of animals. It was measured with the help of knowledge test developed by this study.

The study was conducted in the ten villages adopted by KVK, Karnal (Haryana). This Kendra was purposively selected because of its training programmes organised for the farmers in respect of various dimensions of dairying. It had trained 60 farmers upto 1979-80. Data were collected from 50 trained farmers and another 50 untrained farmers relected randomly from each of the 10 villages at the rate of fine farmers in each category.

RESULTS AND DISCUSSION

The differential knowledge in various areas of dairying independently as well as total knowledge was found out and presented in Table 1.

A perusal of the data in Table 1 revealed that in all areas, knowledge was significantly high among trained

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farmers in comparison to untrained ones. In respect of total dairy knowledge, the value of 't' was significant at 1 per cent level which showed, that the degree of knowledge among trained farmers was higher than untrained ones. It was interesting to note that there was no difference in knowledge with regard to fodder production between the trained and untrained farmers. It might be due to the reason that fodder production was not paid much attention in the course contents of the training programmes as compared to other areas, or another probable reason could be that farmers were growing berseem fodder crop extensively in the study area. It was therefore expected that farmers were having good knowledge about berseem as compared to other fodder crops. It was further revealed that although there was difference in knowledge with regard to health care in both the groups. They were having low knowledge in health care as compared to other areas, on the basis of their mean score. This simply suggest that the knowledge with regard to various diseases, precaution to be taken and common treatment which could be given more emphasis on the part of KVK Instructor enabling the farmer to acquire more knowledge in this aspect. Similarly, more exposure to the production technique of various other fodder crop of Kharif and Rabi was required by the farmers to gain knowledge in fodder production, and its preservation.

Correlation analysis of selected personal characteristics with dairy farming knowledge has been presented in Table 2.

As indicated in Table 2 in the case of trained farmers, six out of eight independent variables were found to have significant correlation coefficients with dairy knowledge. The two variables i.e. education and milk production were found to be non-significant. This might be due to the fact that not much of the variation was observed in the educational profile of the trained and untrained groups seperately, however in pooled sample the variation existed, which resulted in significant relationship with knowledge.

In the case of untrained farmers four variables namely, herd size, milk production, wheat production and communication exposure were found to be significant at 1 per cent of probability level. While farm size and economic motivation were significant at 5 per cent level of probability. The other two variables namely education and risk orientation were found to be statistically non-significant.

In pooled sample, seven out of eight variables were significant at 1 per cent level, whereas remaining one variable i.e. farm size was significant at 5 per cent level of probability, which indicated that increase in size of holding would probably increase the knowledge. This view has been strongly by Gopal (1974). Further it could be observed that increase in educational level of the respondent would increase the knowledge and is in confirmity with the findings of Gopal (1974) and Pawar

(1979). The relationship between herd size and knowledge (.33) was highly significant.

The relationship of milk production and wheat production with knowledge have also shown highly significant correlation coefficients i.e. .29 and .54 respectively. In former case it was logical that one who produces more milk certainly have high knowledge of dairying. In later case, it could be argued thar the farmer who is high wheat producer might be having dairy farming as a secondary business through which he might have increased his knowledge regarding dairying. The significant relationship was also observed between communication exposure and knowledge which was so obvious because of the phenomenon that farmer having more extension contacts and exposure to various media would have more knowledge due to interaction with the extension workers and this would lead him to have more knowledge.

The relationship of economic motivation and risk orientation with knowledge showed significant correlation coefficients i.e. .35 and .61 respectively. In former case it could be argued that the farmer who wants to maximise his profits naturally would possess more knowledge about his enterprise. In later case the farmers having higher risk bearing tendency would increase their knowledge. This finding is supported by Chauhan (1979). This phenomenon has a sound logic due to the fact that the farmer with risk bearing ability could channelise his efforts to procure credit, and marketing, facilities and could establish better

contacts with extension agents to acquire more and more knowledge about dairy farming, in comparison to another farmer who does not have risk bearing ability.

To ascertain the contribution of independent characteristics to the knowledge of dairying, regression analysis was employed which is reported in Table 3.

In the case of trained farmers, the regression analysis (Table 3) showed that out of the eight variables only risk orientation was having highly significant regression coefficient (3.75**). Other variables did not yield significant regression coefficient. The contribution of all the variables put together towards the knowledge of dairying amongst the trained farmers was found to be 56 per cent (R^2 = 0.56) whereas 41 per cent in the case of untrained farmers, whose F values, 6.76 & 3.64 were found to be highly significant. Wheat production was the only variable which yielded significant regression coefficient (2.88**). In pooled data two variables namely communication exposure and risk orientation were having highly significant regression coefficients, while another variable i.e. wheat production would yield significant regression coefficient. All the variables explained 50 per cent of the variation. The F Value, 11.83, was found to be highly significant. So, it could be said that mainly communication exposure and risk orientation and also wheat production were the dominant corre-

lates of dairy farming knowledge, considering the pooled data.

It could be suggested on the basis of the above results that the trained famers should be oriented to appreciate risk bearing ability enabling them to take risk in the adoption of new practices. Since, wheat production has shown positive and significant relationship, with dairy knowledge, it suggests that package of practices regarding wheat production should also find place in Training Programmes. So that the innovative farmers increase their subject matter knowledge with regard to wheat production practices as well as milk production practices. It could also be suggested that besides

the organization of training programmes, other media should also be tried to give better exposure to the farmers about the improved practices in agriculture including dairying.

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Table 1   Comparative data in respect of knowledge about the improved practices of dairy farming

Area of dairying	Trained farmers (N=50) (Mean Score)	Untrained farmers (N=50) (Mean Score)	't' value
Breeding	62.70	43.50	7.34**
Feeding	84.16	74.00	3.12**
Fodder production	48.66	44.10	1.35 N. S.
Management	85.66	77.30	4.40**
Health care	27.54	15.48	7.18**
Total	57.64	47.56	5.24**

** Significant at 0.01 level of probability.
N. S. Non Significant.

Table 2 : Association of Independent Variables with knowledge (Dairying).

Independent variables.	Trained farmer (N=50)	Untrained farmer (N=50)	Pooled (N=100)
Farm size	0.325**	0.2980*	0.217*
Education	0.142 NS	0 072 NS	0.303**
Herd size	0.362**	0'445**	0.330**
Milk Production	0.149 NS	0.416**	0.292**
Wheat Production	0.613**	0.446**	0.549**
Communication Exposure.	0.619**	0.425**	0.581**
Economic Motivation.	0.393**	0.276*	0.353**
Risk Orientation.	0.846**	0.264 NS	0.616**

* Significant at 0.05 level of probability.
** Significant at 0.01 level of probability.
N. S. Non Significant.

Table 3   Regression Coefficient between Knowledge of Dairying and the Selected independent variables.

Variables	TRAINED FARMERS (N=50) Regression Coefficient	't' value	UNTRAINED FARMERS (N=50) Regression Coefficient	't' value	POOLED (N=100) Regression Coefficient	't' value
Farms Size	-0.166 (.167)	-0.99	-0.099 (.188)	-0.52	-0.122 (.099)	-.23
Education	-0.227 (.143)	-1.58	-0.796 (.813)	-0.97	-0.061 (.091)	-0.65
Herd size	0.187 (.216)	0.86	1.293 (.815)	1.58	0.271 (.159)	1.50
Milk Production	-0.193 (.192)	-1.02	-0.356 (.701)	-0.50	-0.101 (.154)	0.65
Wheat Production	0.187 (.159)	1.17	2.354 (.922)	2.56*	0.304 (.144)	2.11*
Communication Exposure	0.305 (.193)	1.57	0.594 (.326)	1.82	0.325 (.109)	2.98**
Economic motivation	-0.011 (.110)	-1.07	0.054 (.545)	0.09	-0.012 (.108)	-0.13
Risk Orientation	0.500 (.133)	3.75**	0.214 (.545)	0.39	0.337 (.108)	3.11**
	$R^2=0.56$ $F=6.76**$		$R^2=0.41$ $F=3.64**$		$R^2=0.50$ $F=11.83**$	

*Significant at 0.05 level of probability.

**Significant at 0.01 level of probability.

Figures in parenthesas are standard error of beta co-efficient.