

Impact of Training Programme in Terms of Gain in Knowledge for Sustainable Agriculture

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ABSTRACT

Assessing the training needs and evaluating the outcomes of training are crucial, both for training providers and recipients of training to ensure that training is effective and resources are widely used. Training is critical input for the farmers for quick transfer of technology and a way to improve their agriculture and uplift their socio-economic condition. Thus, the importance of training as an indispensable instrument for human resource development at any level cannot be ignored. The study was conducted at Sardar Smruti Kendra, J. A. U., Junagadh. Total 46 farmers from different villages of Jamnagar district were participated in three days training programme held during 14th-16th May, 2015. In order to determine the level of knowledge before and after training and to ascertain the correlation of their level of knowledge with different factors, the study was conducted. The results of the study revealed that the gain in knowledge after training was increase 8.70 percent in medium group and 2.17 percent in high level of knowledge group of young farmers. Whereas, decrease in case of low-level group of knowledge is 10.87 percent. This clearly indicated that medium and high knowledge group were dominant only after underwent training. The results reflected that the knowledge level before training was correlated with socio-economic characteristics viz. education, unirrigated land, cropping intensity and training received. While only education and training received were correlates after training of improved agricultural technology. The co efficient of regression (determination) indicated that all the sixteen variables together explained 54.59 percent variation in the knowledge of before training of trainees and 56.17 percent variation in knowledge of after training of improved technology of agriculture. That means, it indicated an increase in knowledge of the respondent after training, which was found to significant.

Keywords: Knowledge level, Tomato Growers, Training programme

INTRODUCTION

Impact assessment is generally regarded as an essential part of any project and is equally applicable to information of improved agricultural technologies. Training is critical input for the farmers for quick transfer of technology and a way to improve their agriculture and uplift their socio-economic condition. The International Labour Organization (1986) defined training as activities which essential aims at providing the skills, knowledge and attitude required for employment in a particular occupations or for exercising a function in any field of economic activities. Institutional training programme are designed to acquaint farmers with modern and scientific techniques of farming and also to disseminate information to the farming community for the improvement of socio-economic status. To keep the

pace with the development in agriculture technology, it is imperative to streamline the transfer of technology system, so that the benefits of innovations can reach the farming community in the quickest possible time. For speedy transfer of improved agricultural technologies, role of research and training for farmers has been recognized according to their requirement. Thus, the importance of training as an indispensable instrument for human resource development at any level can not be ignored. In this context, the Sardar Smruti Kendra (SSK), Junagadh Agricultural University (JAU), Junagadh has organized an institutional training programme of selected farmers from various villages of Jamnagar district in collaboration with Agricultural Technology Management Agency (ATMA), Jamnagar. Keeping these points in view, present study was conducted with the following objectives.

OBJECTIVES

- (i) To know the level of knowledge of farmers regarding improved agricultural technologies
- (ii) To determine the relationship between knowledge level of farmers and their selected socio-economic characteristics
- (iii) To assess the change in knowledge level before and after institutional training programme

METHODOLOGY

The Sardar Smruti Kendra, Junagadh Agricultural University, Junagadh is organizing institutional and non-institutional training programme for farmers, farm women and youth of the Saurashtra region. Agricultural Technology Management Agency (ATMA), Jamnagar has organized three days farmers training programme during May 14th - 16th, 2015 at Sardar Smruti Kendra, G. A. U., Junagadh.

Total 46 farmers from various villages of Jamnagar district had participated in training programme. In order to measure the impact of training on change in knowledge regarding improved agricultural technologies a study was conducted. Keeping the theme of the training content in mind a simple objective type knowledge inventory was prepared and pre and post test before training and after training respectively were conducted for data collection. The number and percentage and pair 't' test were employed for interpretation of the data.

A schedule developed for the purpose was administered to the respondents before and after training programme and data were collected. For analysis of the level of knowledge regarding the agricultural technologies, the correct response was given '1' score whereas '0' score was given to incorrect response. The mean percent knowledge was computed by the following formula.

$$\text{Knowledge} = \frac{\text{Total score obtained}}{\text{Potential score}} \times 100$$

RESULTS AND DISCUSSION

Level of Knowledge

Table 1 : Distribution of respondents on the basis of knowledge level before and after training

n = 46

Level of knowledge	Before training		After training		Difference in percent
	No. of respondent	Per cent	No. of respondent	Per cent	
Low	10	21.74	05	10.87	- 10.87
Medium	29	63.04	33	71.74	+ 8.70
High	07	15.22	08	17.39	+ 2.17
Total	46	100.00	46	100.00	

The Table 1 revealed that in case of before training, more than three-fifth (63.04 per cent) of the respondents had medium level of knowledge. Whereas in case of after training, the respondents had 71.74 per cent of the knowledge of

improved agricultural technologies. The difference between before and after training is increase 8.70 per cent in medium group of knowledge level.

Difference of knowledge before and after training

Table 2 : Average score of knowledge of farmers among before and after training

n = 46

Category	No. of respondent	Mean	Standard deviation	't' value
Before training	46	45.6524	18.2842	0.75474 **
After training	46	69.8761	13.1648	-

** = significant at 0.01 per cent level.

It is observed from Table 2 that the mean score of knowledge of farmers who received training was higher than that of before training of farmers and difference was found

to be statistically significant at 1 per cent level. This higher score can be attributed to the impact of training centre.

Correlates of Knowledge

Table 3 : Relationship of independent variable with knowledge level of respondents before and after training of improved agricultural technologies n = 46

Sr. No.	Independent variable	Correlation co-efficient (r)		Partial regression co-efficient (b)		' t ' value	
		Before training	After training	Y ₁	Y ₂	Y ₁	Y ₂
X ₁	Age	0.17906	0.08993	0.0007	0.0040	-0.143	-0.340
X ₂	Education	0.46182**	0.44690**	0.2576	0.2739	3.172	3.307
X ₃	Irrigated land	0.10364	-0.04249	0.0819	0.0352	-1.608	-1.028
X ₄	Unirrigated land	-0.24493*	-0.16072	0.0824	0.0348	-1.614	-1.023
X ₅	Total land holding	-0.15328	-0.16379	0.0826	0.0355	1.616	1.034
X ₆	Cropping intensity	0.26868*	0.23309	0.0153	0.0511	0.672	1.249
X ₇	Training received	0.30415**	0.30615**	0.1379	0.1468	2.154	2.234
X ₈	Cast	0.19957	0.18127	0.0091	0.0246	0.517	0.855
X ₉	Family type	-0.04461	-0.04294	0.0024	0.0009	-0.266	-0.165
X ₁₀	Family income	-0.08717	-0.11661	0.0057	0.0004	0.409	-0.111
X ₁₁	Farming experience	0.12022	0.01763	0.0273	0.0121	0.902	0.597
X ₁₂	Social participation	-0.06115	-0.06858	0.0592	0.0243	-1.351	-0.850
X ₁₃	Economic motivation	0.09821	0.08899	0.0366	0.0817	-1.049	-1.606
X ₁₄	Extension participation	0.10996	0.03871	0.0018	0.0831	-0.277	-1.621
X ₁₅	Mass media exposure	0.12921	0.18842	0.1377	0.2389	1.066	3.017
X ₁₆	Distance from training centre	0.12129	-0.06437	0.0458	0.0281	-1.180	-0.915

Y₁ = Before training – Multiple R² = 0.5459, Multiple R = 0.7389, F value for R = 2.179**

Y₂ = After training – Multiple R² = 0.5617, Multiple R = 0.7495, F value for R = 2.323**

The data presented in Table 3 indicated that out of 16 independent variables only four variables viz. education, unirrigated land, cropping intensity and training received in case of before training and two variables viz. education and training received in case of after training had significant relationship with the knowledge score of the respondents.

The co-efficient of determination R² = 0.5459 (before training) and R² = 0.5617 (after training) indicated that all the sixteen variables together explained 54.59 per cent variation in the knowledge in case of before training of trainees and 56.17 per cent variation in the knowledge in case of after training was observed. That means, it indicated an increase in knowledge of the respondent after receiving the training. This was found significant.

CONCLUSION

It is concluded that the gain in knowledge after training was increase 8.70 percent in medium group and 2.17

percent in high level of knowledge group of young farmers. That means, medium and high knowledge group were dominant only after underwent training.

The difference in mean score of knowledge of farmers was found to be significant at 1 percent level. It is obviously stated that the training to youths is working as an innovative tool for acquiring the technological know-how in agriculture.

The results reflected that the knowledge level before training was correlated with socio-economic characteristics viz. education, unirrigated land, cropping intensity and training received. While only education and training received were correlates after training of improved agricultural technology. Thus, education and training are utmost important to increase the knowledge.

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