

Impact of Institutional Training on Knowledge of Tribal Farmers

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INTRODUCTION

The transfer of modern agricultural practices to tribal farmers with pre-conceived thoughts of traditional farming, calls for a well developed and organised training programme for tribal farmers. 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 can not be ignored. In this context the Vidya Bhawan Krishi Vigyan Kendra has organised per-season kharif training programme on cereal, pulse and oilseed crops. Keeping these points in view present study was conducted with the following objective :

"To study the gain in knowledge of the tribal farmers after attending the training with regards to improved agricultural practices of cereal, pulse and oilseeds crop".

METHODOLOGY

The Vidya Bhawan Krishi Vigyan Kendra is organising institutional and non-institutional vocational training programmes for farmers, farm women and youths of the Udaipur district. Three pre-kharif on-campus training courses were conducted on cereal,

pulse and oilseed crops for the tribal farmers. For impact assessment of the training, maize, urad and groundnut were selected from cereal, pulse and oilseed crops respectively, because these crops are mainly grown in the area by the farmers. The respondents who were called for attending the short duration trainings constituted the sample for this study. The number of farmers who attended the cereal, oilseed and pulse training programme were 36, 36 and 31, respectively.

In total 103 tribal farmers participated in these training courses from panchyat samiti of Gounda, Jhadol and Kotra of the Udaipur district.

Measurement of Knowledge

Keeping the theme of training in mind, schedules were developed for each training programme for data collection. They were applied to the trainees before and after the training programme. The correct response was given '1' score, whereas, '0' for wrong response. The mean percent knowledge was computed by the following formula.

$$\frac{\text{Total Score Obtained}}{\text{Potential Score}} \times 100$$

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The improvement score for each practice was measured as the difference between after and before training score. To see the significant impact of the training on tribal farmers, 't' test was applied on pre and post training score of individual trainees.

RESULTS AND DISCUSSION

Overall gain in Knowledge :

In order to find out relative gain, knowledge test was administered at before and after training programme for maize,

recorded 41.47 per cent. It was noted that farmers gained more or less similar knowledge (43 per cent) about production technology of maize and groundnut due to training course.

Perusal of Table 1 visualises that 't' values 25.57, 25.53, 36.95 and 41.47 of maize, groundnut, Urad and overall respectively were found to be significant at 0.01 level of probability. This shows that training has positively helped the tribal farmers to increase their knowledge about

Table 1 : Effect of training in gain in knowledge about kharif crop production practices

Sr. No.	Crop	Knowledge before training M.P.S.	Knowledge after training M.P.S.	Gain in Knowledge M.P.S.	't' value
1.	Maize	15.58	58.82	43.24	25.57**
2.	Groundnut	13.83	57.50	43.67	25.53**
3.	Urad	12.22	64.67	52.45	36.95**
	Overall	12.81	60.59	47.78	41.47**

* Significant at 0.01 percent level

M.P.S. = Mean percent score

groundnut and Urad crops. The difference between the scores pre and post training constituted the gain in knowledge of the farmers. Table 1 indicates that farmers possessed total 12.81 per cent technical knowledge before conducting the training programmes on improved production practices of maize, groundnut and Urad. Trainings were imparted to the farmers through lecture, group discussion and learning by doing methods. After imparting intensive training, the overall gain in knowledge of respondents was

improved cultivation practices of maize, groundnut and Urad.

The finding is in line with the finding of Pathodia and Panwar (1990), who revealed that the overall gain in knowledge of the respondents was 45.69 per cent in the field of crop husbandry.

Individual Practice-wise gain in knowledge:

The findings regarding gain in knowledge of tribal farmers about individual practice of maize, groundnut and Urad

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are presented in this section. For this, mean percent scores were calculated and gain in knowledge of each practice was found.

The Udaipur zone is predominantly occupied by the tribal population which constitute 45.70 per cent of the total tribal population of the Rajasthan. Maize is main food staple crop of tribals in this zone. This crop is grown in large area in kharif season. With this point of consideration, pre-kharif on campus training was conducted for 36 tribal farmers on improved maize cultivation

59.72 M.P.S. in the practice of seed treatment. This was followed by soil treatment, fertilizer application, field preparation and sowing method, where the M.P.S. was 56.48, 49.61 and 47.61, respectively. The 't' value show that there was significant difference between pre and post-knowledge of the tribal farmers about improved maize cultivation practices. Therefore, selected maize technologies for the training were effective in imparting scientific knowledge to farmers.

The finding is supported by the finding of Kulhari and Kavia (1990), who revealed

Table 2 : Knowledge gained by the farmers about improved cultivation practices of maize

Sr. No.	Practices	Knowledge before training M.P.S.	Knowledge after training M.P.S.	Gain in knowledge M.P.S.	't' Value
1.	Improved varieties	17.01	62.55	45.54	9.61**
2.	Field preparation & sowing method	23.02	70.63	47.61	17.21**
3.	Seed rate & spacing	22.22	68.75	46.53	10.33**
4.	Seed treatment	4.86	64.58	59.72	10.86**
5.	Soil treatment	2.78	59.26	56.48	8.93**
6.	Fertilizer application	15.87	65.48	49.61	11.69**
7.	Chemical weed control	1.85	35.19	33.34	7.93**
8.	Insect-pest and diseases	9.92	48.02	38.10	17.80**
9.	Harvesting & storage	24.31	62.50	38.19	9.68**

** Significant at 0.01 per cent level

M.P.S. = Mean percent score

technology. Table 2 shows that farmers had poor knowledge about all the improved cultivation practices of maize prior to training. The highest knowledge was recorded 24.31 per cent in the practice of harvesting and storage of the crop. After completion of the training, farmers gained highest knowledge

that 72.20 per cent farmers attained higher levels of knowledge due to training. Similar results were obtained by Singh (1977).

A six days institutional training programme was organised on groundnut cultivation technology in view of improving the economic condition of the tribal farmers.

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Table 3 indicates that farmers possessed very low knowledge on the practices of groundnut such as seed treatment (2.31 per cent), irrigation management (11.11 per cent), weed control (11.80 per cent) and soil treatment

impact of training was found in gain in knowledge of the respondents about groundnut technology.

The similar findings have been reported

Table 3 : Knowledge gained by the farmers about improved cultivation practices of groundnut

Sr. No.	Practices	Knowledge before training M.P.S.	Knowledge after training M.P.S.	Gain in knowledge M.P.S.	't' Value
1.	Improved varieties	14.19	56.48	42.29	10.00**
2.	Field preparation & soil treatment	13.42	65.27	51.85	11.62**
3.	Seed treatment	2.31	52.32	50.01	12.48**
4.	Seedrate & spacing	21.43	68.65	47.22	11.54**
5.	Fertilizer application	14.58	63.83	49.25	9.45**
6.	Chemical weed control	11.80	61.11	49.31	9.71**
7.	Irrigation Management	11.11	70.83	59.72	9.37**
8.	Plant protection measures	14.93	46.53	31.60	6.80**
9.	Harvesting & storage	17.36	59.03	41.67	6.23**

** Significant at 0.01 per cent level

M.P.S. = Mean percent score

(13.42 per cent) before training programme. The highest knowledge score recorded was 17.36 per cent on harvesting and storage practice of groundnut. Although, there was more than 40 per cent increase in the knowledge of the farmers about all the improved groundnut cultivation practices due to training. The knowledge score of the irrigation management of groundnut crop was 11.11 M.P.S. which increased upto 70.83 per cent. Further analysis of the table shows that calculated value of 't' was higher than its tabulated value at 1 per cent level of significance in all the practices. Hence, it is concluded that the significant and positive

by Chauhan, Singh and Singh (1990), who revealed that there was considerable increase of knowledge about oilseed crops, since the knowledge score ranged from 48 to 67 per cent after completion of training.

Table 4 shows that the tribal farmers possessed low knowledge regarding the all improved production practices of Urad before conduction of training. The knowledge score on these practices ranged from 2.15 to 29.00 M.P.S. During the investigation it was found that farmers were not growing this crop on scientific line. There fore, farmers were taught about the importance of Urad in diet and

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Table 4 : Knowledge gained by the farmers about improved production technology of Urad.

Sr. No.	Practices	Knowledge before training M.P.S.	Knowledge after training M.P.S.	Gain in knowledge M.P.S.	't' Value
1.	Improved varieties	11.16	52.90	41.74	10.14**
2.	Field preparation & soil treatment	17.34	68.16	50.82	10.51**
3.	Seed treatment	11.61	54.19	42.58	11.11**
4.	Seedrate & spacing	22.58	75.00	52.42	11.20**
5.	Fertilizer application	7.53	77.96	70.43	17.81**
6.	Chemical weed control	2.15	39.78	37.63	8.41**
7.	Irrigation Management	29.00	77.42	48.42	7.55**
8.	Plant protection measures	5.38	61.83	56.45	16.50**
9.	Harvesting & storage	9.67	71.77	62.11	15.84**

** Significant at 0.01 per cent level

M.P.S. = Mean per cent score

enhancing the economic condition of the tribals, less input requirement than other crops at the time of initial stage. So the farmers showed great interest and actively participated in pulse production training programme. The farmers gained knowledge as 70.43 per cent in the practices of fertilizer application due to training. This was followed by harvesting and storage, plant protection measures, seedrate and spacing, and soil treatment, where the M.P.S. was 62.11, 56.45, 52.42 and 50.82, respectively. Table 4 further indicates that calculated value of 't' was greater than its tabulated value in all the improved practices of Urad. Hence, it is concluded that training has considerably increased the farmers' knowledge about Urad technology.

Findings are in line with the findings of Anantharaman and Ramanathan (1990) who reported that the increase in the

knowledge level ranged from 16.6 to 116.2 percent with an average of 62.77 per cent, which shows that the programme was beneficial for the participants to acquire knowledge.

CONCLUSION

The investigation clearly indicates that tribal farmers are significantly benefitted by institutional kharif training programmes. Further it is concluded that farmers gained 43.24, 43.67 and 52.45 per cent knowledge about improved technological aspects of maize, groundnut and Urad respectively. Therefore, it is suggested that followup programme should be conducted on priority basis so that the knowledge of the trainees can be brought into the real practice.

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❖ He began to realize the deep truth that no one, broadly speaking, ever wishes to hear what you have been doing.

- ANGELA THIRKELL

❖ Winners do not do different things They do things differently

- SHIV KHERA

❖ Success comes to those who keep striving. While failure stalks those who give up

❖ A candle which is not lit cannot light others; A teacher who is also not learning cannot teach others

❖ It is only when we forget all our learning that we begin to know

- HENRY DAVID THOREAU