

Impact of Krishi Vigyan Kendra on the knowledge level of the farmers in respect to training programmes

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Abstract

A survey study was done during the years 2017-18 and 2018-19 on 100 beneficiaries of four adopted villages of Krishi Vigyan Kendra, Bichpuri (Agra) located in two different blocks of Agra districts of Uttar Pradesh to know the impact of training programme on knowledge level of the farmers in reference to the nature of trainings, farmers reaction on training contents and change in farmers skills. The data analyzed revealed that respondents react on the training programmes conducted by KVK in a very positive manner. Participants were found satisfied with the trainers because of their keen interest in imparting training programmes. On the nature of trainings statements like "related to major problems of district" and "need based trainings" were ranked I and II by the respondents. Farmers gave maximum importance to "high yielding varieties seeds" followed by "cropping patterns". Further study revealed that after trainings there was drastic change occur in their skills like application of neem cake, bio-fertilizer and bio-pesticides getting more production of vegetables.

Key Words: Training, beneficiaries, adopted, bio-fertilizer, bio-pesticides

Introduction

Agriculture in India is one of the most important sectors of its economy. About 43.00% of India's geographical area is used for agricultural activity. It is the means of livelihood of almost two thirds of the work force in the country.

It is estimated that percentage of agricultural workers of total work force would drop to 25.7% by 2050 from 58.2% in 2001 (GOI, MF 2018). Use of science and technology, knowledge empowerment and capacity building through trainings can enable farmers to make them competitive and induce inclusive growth.

Dahama and Bhatnagar (1980) mentioned that man's knowledge like machines can rapidly become obsolescent. Training is a mean to reduce the obsolescence among people and organizations in view of relentless technological advancements and innovations. Training improves a person's skill, power of intelligence and develops in him the desired attitude and values. So far, the achievements in respect of

agricultural growth and food production have been spectacular with self-sufficiency in food grains. Ingle (1997) observed that 90.00% of the trained farmers of KVK knew soil type required for summer groundnut. As regards sowing time, about 95.00% of trained farmers were acclimatized. However, 96.66% of the trained farmers have knowledge about seed rate. About seed treatment with fungicides 55.66%, trained farmers knew. Fifty per cent of the trained farmers knew the *Rhizobium* culture treatment. Regarding the fertilizer dose, 75.00% of trained farmers knew the recommended dose.

Krishi Vigyan Kendra contributed positively in enhancing the adoption level of farmers in various aspects of agricultural production technologies through trainings. Hundal *et al.* (2016) studied the role of training in changing knowledge level of farmers and reported that only 4.4% of the farmers belonged to high level knowledge category before training whereas 81.9% of the farmers were in this category after training. Due to the interventions of KVK scientists in trainings, demonstration activities, on farm trials and other extension activities helped in enhancing the

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knowledge level of farmers which in turn led higher adoption of agricultural production technologies (Singhal & Vatta (2017).

Therefore, there is an urgent need to provide package of initiatives for transfer of technology, improving input use efficiency, promoting investments in agriculture both in private as well as public sectors and creating a favorable economic environment.

Materials and Methods

The study was conducted during the year 2017-18 and 2018-19 in four adopted villages of Krishi Vigyan Kendra (Agra) located in two blocks of Agra districts of Uttar Pradesh (Table 1). The focus of the study was to assess the impact of KVK training programmes and to estimate their knowledge about KVK and to illicit suggestion if any, from the trainees for conducting better and efficient training programmes'. Both purposive and random sampling technique was adopted to select the blocks, villages and 100 respondents.

A schedule was specifically designed keeping in view the objectives of the programme. Information gained in the field study, consultation with the literature and experts helped to prepare a tentative schedule. Care was taken to avoid ambiguous and vague items. Most of the questions were close-ended and as such care was taken to encompass all possible responses, whether prevalent to that condition or not. In case of open-ended questions exact answers were received as pronounced by the respondents. After the interview schedule was prepared it was translated into the local language and responses were recorded. It is pre-testing with 10% of total population at random and necessary modifications were made based on the validity of the item.

The interviewer made the respondent felt that him answer were important. Systematically, the question was asked as specified in the questionnaire and an informal discussion was made to collect the data/investigation was continued from first week of

June to last week of July. The data thus collected were tabulated under different training variables (Farmers reaction on nature of training, farmer's reaction on content of training, change in farmer's skill, degree of improvement in skill and change in farmer's income) and subjected for empirical measurement and analysis.

The following parametric statistical methods were used in this study based on the nature of data and the type of information required.

1. Percentage

Percentages were used in description analysis for making simple comparisons. For calculating percentages, the frequency of a particular cell was multiplied by 100 and divided by the total number of respondents in that particular category to which cell they belonged.

$$\text{Percentage: } P = \frac{x}{n} \times 100 \text{ Where,}$$

P = Percentage,

x = Frequency of respondents

n = Total number of respondents

2. Mean score and rank order

Total scores obtained from each scale are drawn and mean score was obtained by dividing it with the number of respondents and on the basis of mean score rank was given.

$$\text{Mean score} = \frac{\text{Total score obtained}}{\text{Number of respondents}}$$

Results and Discussion

The nature and content of training have been evaluated separately keeping in mind the basic concept behind KVK activities and the principles of training. The magnitude of change in the skill of beneficiary farmers have been attempted to measure, reaction of farmers on the nature of training. The result presented in the Table 1 indicates that majority of the respondents assigned the 1strank to the statement training programme "related to major problems of district". The

Table 1: Selection of district, blocks, villages and respondents

Name of the KVK	Name of district	Name of the block	Name of the village	Name of the village with No. of respondents
Agra	Agra	Achenera	Nagla Mansa	25
			Ardaya	30
		Kheragarh	Nagla Vishnu	25
			Nagla Heera Singh	20

Table 2: Reactions of farmers on the nature of training organized by Krishi Vigyan Kendra

S. No.	Farmers Statements	Agree	Undecided	Disagree	Mean score	Rank
1.	Related to major problems of district	97	3	0	3.00	I
2.	Need and problem based trainings	95	4	1	2.90	III
3.	Working methods are appropriate related to youth	98	2	0	2.74	V
4.	Trainers take keen interest	88	8	4	2.78	IV
5.	Beneficial to all groups of individual	89	7	4	2.97	II
6.	KVK organized trainings as per farmers convenience	78	19	3	2.13	VIII
7.	Trainings are fit as per existing resources	67	20	13	2.65	VI
8.	Teaching aids are used during trainings	80	12	8	2.45	VII
9.	Trainings are fit to the prevailing social customs	34	23	43	1.98	X
10.	Trainers give importance to farmers views	87	12	1	2.12	IX

2nd rank went in favor of the statement “beneficial to all groups of individual”. The third and fourth ranks were given to “need and problem based trainings” and “trainers take keen interest” respectively. “working methods are appropriate related to youth”, “trainings are fit as per existing resources”, “teaching aids are used during trainings”, “KVK organized trainings as per farmer’s convenience” and “trainers give importance to farmers views” were ranked 5th, 6th, 7th, 8th and 9th the prevailing social custom”. Thus the respondents in general had a high appreciation for the

quality of training imparted through project respectively. The last ranked assigned was “trainings are fit to the prevailing social customs”. The findings are in conformity with the findings Singh *et al.* (2011) and Medhi *et al.* (2017).

The findings related to farmers’ training content (Table 3) indicate that most of the beneficiary farmers give maximum importance to high yielding varieties seeds for increasing productivity followed by improved cropping system. They also gave 3rd rank more importance to the integrated pest, disease and

Table 3: Reactions of farmers on content of training organized by Krishi Vigyan Kendra

S. No.	Items	Agree	Undecided	Disagree	Mean score	Rank
1.	High yielding varieties	97	3	0	3.10	I
2.	Cropping Systems	95	4	1	2.99	II
3.	Integrated Farming System	45	4	51	2.03	XVIII
4.	Integrated pest, disease and weed management	98	2	0	2.89	III
5.	Off-season vegetables cultivation	88	8	4	2.69	V
6.	Layout and management of orchards	89	7	4	2.55	IX
7.	Production and Management technology of tuber crops	78	19	3	2.67	VI
8.	Processing and value addition in fruits and vegetables	67	20	13	2.13	XIII
9.	Nursery management of vegetable crops	80	12	8	2.79	IV
10.	Production and management technology of medicinal plants	34	23	43	1.87	XX
11.	Integrated Nutrient Management	87	12	1	2.34	XII
12.	Production and use of organic inputs	55	45	0	2.14	XIV
13.	Soil and water testing	87	12	1	2.65	VII
14.	Animal Nutrition Management	78	19	3	2.59	VIII
15.	Disease Management in animals	57	23	20	2.33	XI
16.	Household food security by kitchen gardening and nutrition gardening	56	32	12	2.11	XV
17.	Design and development of low/minimum cost diet	47	35	18	2.01	XVII
18.	Location specific drudgery reduction technologies	45	35	20	2.00	XVI
19.	Farm Machinery and its maintenance	67	29	4	1.89	XIX
20.	Integrated pest, disease and weed management	89	9	2	2.43	X

Table 4: Change in farmers skill after training organized by KVK

S. No.	Items	Agree	Undecided	Disagree	Mean score	Rank
1.	Adoption of alternative cropping systems	89	11	0	3.10	I
2.	Awareness of Integrated Farming System	57	34	9	2.13	XIII
3.	Adoption of micro Irrigation/irrigation				2.79	IV
4.	Use of balance dose of fertilizers	87	11	2	1.87	XX
5.	Off-season vegetables cultivation	43	34	23	2.34	XII
6.	New orchards developed Layout and management of orchards	35	48	17	2.14	XIV
7.	Improvement in the production and management technology of tuber crops	88	11	1	2.65	VII
8.	Pickles and Achar making	45	37	18	2.59	VIII
9.	Good management of vegetable nursery	87	8	5	2.33	XI
10.	Adoption of production of spices and medicinal plants	23	53	24	2.11	XV
11.	Use of soil testing based fertilizers	92	8	0	2.01	XVII
12.	Adoption of organic farming	0	89	11	2.00	XVI
13.	Awareness of SHC	22	67	10	1.89	XIX
14.	Good selection of animal nutrition	88	12	0	2.43	X
15.	Improved disease management system in animals	47	48	5	2.67	VI
16.	Awareness of food security by kitchen gardening and nutrition gardening	22	66	12	2.99	II
17.	Improvement in developing low/minimum cost diet	76	23	1	2.03	XVIII
18.	Adoption of drudgery reduction technologies	10	78	12	2.89	III
19.	Development of good farm machinery keeping	54	35	11	2.69	V
20.	Methods, dose and time of application of plant protection chemicals	88	10	2	2.55	IX

weed management as most of the crop failure is due to the disease pest infestation. Training on soil and water testing management practices of livestock, production and management technology of tuber crops were preferred in their respective orders. They also gave importance to the training on nursery management of vegetable crops. Integrated farming system, vermiculture programme, processing and value addition in fruits and vegetables production and management technology of medicinal plants were least preferred by the beneficiary farmers. This may be due to the unavailability of resource or input for these enterprises. About the training on farm machinery and its maintenance, the reaction of the farmers was nil.

It was found that trainings were effective in increasing the skills of trainees as indicate by table 4. It is evident from the findings that there was maximum change in improved intercultural practices. The respondents were found to have developed their skill due to training in respect of dose, time and method of application of fertilizers, Next to the

above two items the respondents were found to have improved their skill in dose, time and method of application of plant protection chemicals, adoption of alternative cropping pattern, good management practices of livestock, vermin-composting preservation of seeds respectively. The findings are in conformity with the findings of Kulkarni and Nikhade (1996), Hundal *et al.* (2016) and Medhi *et al.* (2017).

One of the main features of Krishi Vigysn Kendra is to trained farmers through different training programmes. The respondents in general responded the training programme conducted by the organizers in a very positive manner. The farming community in general was satisfied on factors like periodicity, duration, and personal conveniences, methodology and content of training. The participants were fully satisfied with the trainers because of their keen interest in imparting training programme. With regard to training content it appeared from the study that the beneficiary farmers attached maximum importance to high yielding varieties seeds followed by cropping pattern. The study revealed essence of

urgency and importance for subject matter areas like plant protection, animal husbandry, home science etc.

The study further revealed that the farmers have undergone change not only in the knowledge but also in their skill. Maximum gain in skill was found to occur in improved intercultural practices like application of neem cake, bio-fertilizer and bio-pesticides for getting more production of vegetables. The farmers were found to have gained in skill in areas of application of fertilizer and plant protection chemical, cropping pattern, animal husbandry, poultry, and home science practices. There is improvement in socio economic condition of respondents. There is improvement in food habit, housing, clothing, children education, material possession. They have accounts in banks, post offices, cooperative societies. Changing knowledge, attitude and skill through training is considered to be the major achievement of the Krishi Vigyan Kendras.

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