Int.J.Curr.Microbiol.App.Sci (2017) *6*(3): 878-890

International Journal of Current Microbiology and Applied Sciences
ISSN: 2319-7706 **Volume 6 Number 3 (2017) pp. 878-890**
Journal homepage: http://www.ijcmas.com

Original Research Article https://doi.org/10.20546/ijcmas.2017.603.103

Farmers' Perception towards Effectiveness of Krishi Vigyan Kendra (KVKs): A Study in Uttarakhand, India

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Keywords

Performance, Perception, Effectiveness, Krishi Vigyan Kendras (KVKs).

Article Info

Accepted:
15 February 2017
Available Online:
10 March 2017

A B S T R A C T

The study was conducted in the state of Uttarakhand, with two purposively selected KVKs Dhakrani representing the plains region of Garhwal division and Bageshwarre presenting the hill region of Kumaon division. A simple random sampling technique was used to select 160 respondents from eight villages from both KVK. Finding of the study revealed that, majority of the beneficiaries had middle age group, educated up to higher secondary, medium family size, marginal land holding, medium media ownership, extension contact, information seeking behaviour and social participation. Findings regarding effectiveness revealed favourable perceptions towards training programmes, teaching & subject matter/ quality of scientists, physical facilities, advisory services & supplies and other supporting activities. However, unfavourable perceptions towards front line demonstration (FLD) and on farm trail (OFTs) was found. Over all farmers' perceptions towards effectiveness of KVKs was medium (47.00%). Performance of training programmes and FLDs of KVK Bageshwar was found better as compared to KVK Dhakrani, whereas performance in respect of OFTs and other extension activities of KVK Dhakrani was found better as compared to KVK Bageshwar.

Introduction

Agriculture is the principal engine of economic growth in India as more than half of the population of the nation depends on it. Poverty and unemployment are the major areas of concern for the rural society. The government and non-government agencies have started numerous programmes for motivation and training of farmers, farmwomen and rural youth. Indian Council of Agricultural Research (ICAR) introduction Krishi Vigyan Kendras (KVKs)as grassroots vocational training centre, it has emerged focal point of technology transfer through its diverse activities like OFT (On farm trail), FLD (Front line demonstration), capacity building, updating knowledge & skills of extension personnel and farmers. KVKs are grassroots level organizations meant for

application of technology through assessment, refinement and demonstration of proven technologies under different 'microfarming' situations in a district (Das, 2007). Since the establishment of the first KVK at Pondicherry in 1974, the number of KVKs has grown to 641 plus**.** Studies have indicated limited success of KVKs in terms of impact. The Indian Parliamentary Standing Committee on Agriculture (1995) reported that no realistic, technical and economic analysis was ever conducted to evaluate the implementation and adoption technology transferred by the KVKs. It suggested that performance evaluation of the trainings organized by the KVKs should be conducted to identify the constraints and impacts (Anonymous, 2002). Further, it observed that there is shortfall in training courses conducted for practicing farmer/rural youth and extension personnel. The objective of testing developed technologies, identifying constraints and formulating recommendations by conducting on farm trail (OFTs) were not being achieved fully by KVKs. Consequently, there is no mechanism to ensure that the information on latest crop varieties released and technologies developed by ICAR and other organizations were disseminated to KVKs for conducting FLDs (Performance Audit of Agricultural Extension Activities in ICAR, Report No. PA 2 of 2008). As the number of KVKs continues to grow, the quality of performance becomes the prime concern to understand factors which contribute to the success or failure of KVKs, Thus, keeping in view of the above fact, this study was undertaken to evaluate the performance of Krishi Vigyan Kendra (KVKs) and to find out the farmers' perceptions about effectiveness of KVKs.

Materials and Methods

The study was conducted in the state of Uttarakhand. Thirteen KVKs have been set up at each of the district headquarters in Uttarakhand. Out of thirteen established KVKs, nine are under GBPUAT, Pantnagar, and two are under the Uttarakhand University of Horticulture & Forestry, Bharsar, and the remaining two are under an ICAR-VPKAS, Almora**.** Out of 13 Krishi Vigyan Kendra, two KVKs - KVK Dhakrani, of Dehradun district (Garhwal division) and KVK Sinduri Baskhola of Bageshwar district (Kumaon division) were selected purposively for the present study because performance evaluation of only those KVKs can be done which have been in existence for a reasonable period of time (5 years for the present study). Eight villages were selected from each KVKs- four villages within the radius of 05km and the other four beyond radius of 05km for each KVK. Thus total 16 villages and 10 respondents were randomly selected from each of the selected villages. Thus total 160 respondents were selected. Farmers perception about effectiveness of Krishi Vigyan Kendra was measured with the help of Likert type scale which were rated on a five point continuum, namely Strongly agree, Agree, Undecided, Disagree and Strongly disagree with a score of 4, 3, 2, 1 and 0, respectively for positive statement and vice-versa. Based on the score assigned to the respondents, the mean and standard deviation were calculated and categorized into three categories. Structured and pre-tested interview schedule was personally administered to collect primary data for the study. Appropriate statistical tools like frequency, percentage, t test and multiple regression analysis were used to draw the meaningful interpretation.

Results and Discussion

Socio-economic, communication and psychological characteristics of KVK's beneficiaries (respondents)

Finding of the study revealed [Table 1] that majority of the beneficiaries were male

(63.00%), middle aged (55.00%), had educational qualification up to higher secondary (49.00%) and medium family size (40.00%). Majority of the beneficiaries were from joint family (69.00%) and belonged to general caste (45.00%). Beneficiaries mainly relied on farming for livelihood (38.00%), had land up to one acre (54.00%). Results revealed that majority of the beneficiary were from Above poverty line (71.00%). It was also found that majority of beneficiaries had medium level of media ownership (50.00%), mass media exposure (77.00%), extension agency contact (68.12%) and information seeking behaviour (65.62%). It depicts that [Table 1] majority of the beneficiaries had low level of social participation (59.37%). The findings of this study are in line in case of education with Goswami (2008), Singh and Kumar (2012)and Mandve (2013). Results of the present study are in conformity with respect of family size with Singh and Kumar (2012) and Gangwar (2014). Similar findings reported by Tomar *et al*., (2016) and Verma *et al*., (2016) in respect of extension agency contact, information seeking behaviour and social participation.

Farmers' perceptions about effectiveness of KVKs

Result revealed that [Table 2] majority of the KVK beneficiaries had favourable perceptions towards training programmes (50.00%), followed by low (34.00%) and only15.00 per cent respondents had high favourable perception. Findings of Ahmad *et al*., (2012) revealed that majority of respondents (63.42%) reported that training programme was fully based on their needs and problems followed by those (23.44%) reporting that it was partially need based. Senthilkumar (2014) also revealed that KVK training was perceived as most effective by the respondents as reflected from their perception score of 67.73.Majority of respondents was found medium favourable perception towards teaching and subject matter/ quality of scientists (47.00%), followed by 34.00 per cent medium and only 19.00 per cent had high favourable perception. Table 2 revealed that majority of respondents had favourable perception towards physical facilities (52.00%) followed by high favourable perception 28.00 per cent and only 19.00 per cent had low favourable perception on existing facilities. Result on advisory and Supplies services revealed that 45.00 per cent had medium favourable perception (Improved seed, planting material and insecticide etc.) followed by 32.00 per cent high favourable perception and only 22.00 per cent had low favourable perception. It is observed that majority of respondents had medium favourable perception on other supporting activities (48.00%). It depicts from table 2 that majority of the beneficiaries had unfavourable perceptions (49.00%) towards front line demonstration followed by 42.00 per cent had medium favourable perception and only 15.00 per cent had high favourable perception towards front line demonstration. About 59.00 per cent respondents had low favourable perception towards on-farm trials followed by medium perception (24.00%) and only 17.00 per cent had high favourable perception towards on farm trial. From the above it can concludes that farmers' had unfavourable perception towards FLD and OFTs and FLDs techno effectiveness was least favourable due to not demonstrating production potential of newly released varieties and proven technologies of agriculture and allied sectors from KVKs in the farmers' fields.

Many farmers even did not know what is OFT and even the knowledge and experience of the scientists conducting OFTs was doubted. Thus, due importance needs to be given to find out farmer's interests and needs, and then accordingly conduct the trials. With seeking

participation of farmers in conducting OFTs may enhance the learning outcomes besides increasing adoption of the latest technology.

Multiple regression analysis of selected characteristics of farmers and their perceptions about effectiveness of KVKs

The results revealed that [Table 3] the value of 'F' statistic 7.81(Training programme), 5.65(OFTs) was significant at 5% probability level where as the value of 'F' statistic 1.4321 (FLDs), were not significant. This indicates that selected characteristics of the respondents were the factors that influence the farmer's perception towards KVK trainings, OFTs and FLDs. However, the value of Coefficient of Determination (R^2) was 0.43, 0.12 and 0.35 which means that characteristics included in the study collectively contributed to the extent of 43.01, 12.14 and 35.30 per cent only. The remaining unexplained variation could be due to other variable/factors not included in the sample. The 'F' statistic 4.13 (Teaching and subject matter/ quality of scientist), 5.07(Physical facilities) and 3.76 (Advisory services and supplies) was significant. This indicates that selected characteristics of respondents were the factors that influence the farmer's perception towards Teaching and subject matter/ quality of scientist, Physical facilities, Advisory services and supplies. The value of Coefficient of Determination (R^2) was 0.28, 0.32 and 0.26 which means that variables included in the study collectively contributed to the extent of 28.52, 32.88 and 26.65 only. The remaining unexplained variation could be due to other variable/ factors not included in the sample. The value of 'F' statistic 6.12 (other supporting activities) and 6.98 (overall effectiveness of KVKs) was significant. This indicates that selected independent variables were the factors which influenced the farmer's perception towards other supporting activities and overall effectiveness of KVKs and the value of Coefficient of Determination (R^2) was 0.37 and 0.40 which means that characteristics included in the study collectively contributed to the extent of 37.14 and 40.29 only.

Multiple regression analysis revealed [Table 3] that out of 14 variables; only gender, education, caste, family type, occupation, mass media exposure, information seeking behaviour and social participation had significant effect on farmer's perceptions about effectiveness of KVKs training programmes. This study reiterated the importance of variables such as gender, education, caste, family type, occupation, mass media exposure, information seeking behaviour and social participation in determining the farmer's perceptions about effectiveness of KVKs.

Performance of Training and Developmental Activities of KVKs from 2009- 2014

The findings revealed [Table 6] that performance of KVK, Dhakrani in respect of training programmes organized against the targets was satisfactory as its achievement was 82.71 per cent during the period under study. On the other hand, performance of KVK Bageshwar was 90.67 per cent. Comparative analysis of the study revealed that performance of KVK Bageshwar was better as compared to KVK Dhakrani. Achievement of Front Line demonstrations (FLDs) against the targets set by the KVK Dhakrani was found less as compared to corresponding achievement by the KVK Bageshwar. The findings of the study are in conformity with Singh and Singh (2010) revealed that ICAR- KVKs had better performance than NGO & SAU- KVKs. While contradictor findings observed by Ahmad *et al*., (2012) that KVKs working under NGOs have performed better in

providing benefits to the farmers (44.65%) followed by SAUs (37.03%) and ICAR institute (18.32%).Out of 91 Frontline demonstrations planned; KVK Bageshwar achieved 93.40 per cent during 2009-2014. Therefore, performance of KVK Bageshwar in respect of FLDs was found to be better as compared to KVK Dhakrani. Regarding On Farm Testing (OFTs) achieved against the set target, performance of KVK Dhakrani was better (93.54%) as compared to KVK, Bageshwar (80.00%). Out of 31 OFTs planned, KVK Dhakrani conducted only 29. However, KVK Bageshwar conducted 28 OFTs against the set target of 35. Thus, the performance of KVK Dhakrani was found to be better in terms of OFTs as compared to KVK Bageshwar.

Table.1 Socio-economic, communication and psychological characteristics of KVKs beneficiaries

Sl No.	Particulars of Variables	Beneficiaries N-160	
		Frequency	%
1.	**Age**		
(i)	Young (up to 30 year)	25	15.00
(ii)	Middle (31 to 50years)	88	55.00
(iii)	Old (above 50 years)	47	29.00
2.	**Gender**		
(i)	Male	101	63.00
(ii)	Female	59	37.00
3.	**Education**		
(i)	Illiterate	21	13.12
(ii)	Can read and write	2	1.25
(iii)	Primary Education	16	10.00
(iv)	Secondary Education	24	15.00
(v)	Higher Secondary Education	78	48.75
(vi)	Diploma	2	1.25
(vii)	Graduate and above	17	10.63
4.	**Caste**		
(i)	General	72	45.00
(ii)	OBC	44	27.00
(iii)	SC	24	15.00
(iv)	ST	20	12.00
5.	**Family type**		
(i)	Nuclear	49	30.00
(ii)	Joint	111	69.00
6.	**Family size**		
(i)	Small (up to 4)	37	23.00
(ii)	Medium (5 to 8)	65	40.00
(iii)	Large (above 8)	58	36.00
7.	**Annual income**		
(i)	Above poverty line (>Rs. 27,000 per annum)	114	71.00
(ii)	Below poverty line (<Rs. 27,000 per annum)	46	29.00

8.	**Size of land holding**		
(i)	Landless	8	5.00
(ii)	Marginal (Up to 1 ha)	87	54.00
(iii)	Small (1 to 2 ha)	48	30.00
(iv)	Semi-medium (2 to 4 ha)	11	7.00
(v)	Medium (4 to 10 ha)	6	4.00
(vi)	Large (>10 ha)	0	0.00
9.	**Occupation of head of the household/Family**		
(i)	Labour	24	15.00
(ii)	Caste occupation	6	4.00
(iii)	Business	36	22.00
(iv)	skill profession	7	4.00
(v)	Cultivation/Farming	61	38.00
(vi)	Service	26	16.00
10.	**Media Ownership**		
(i)	Low (upto2)	72	45.00
(ii)	Medium (3 to 4)	80	50.00
(iii)	High (above 4)	8	5.00
11.	**Mass media exposure**		
(i)	Low (upto11)	22	14.00
(ii)	Medium (12-21)	123	77.00
(iii)	High (above 21)	59	37.00
12.	**Extension agency contact**		
(i)	Low (upto12)	32	20.00
(ii)	Medium (13 to 21)	109	68.00
(iii)	High (above 21)	19	12.00
13.	**Information seeking behavior**		
(i)	Low (upto23)	42	26.00
(ii)	Medium (24 to 30)	105	65.00
(iii)	High (above 30)	13	8.00
14.	**Social participation**		
(i)	Low (upto6)	95	59.00
(ii)	Medium (7 to 10)	42	26.00
(iii)	High (above 10)	23	14.00

Table.2 Farmers' perceptions about effectiveness of KVKs (N=160)

Sl No.	Perceptional Factor Dimension	Degrees of perception of beneficiaries	
		Frequency	**%**
1.	Farmer's perceptions towards training programmes		
(i)	Low (up to 42)	55	34.00
(ii)	Medium (43-55)	81	50.00
(ii)	High (Above 55)	24	15.00
2.	Farmer's perceptions towards front line demonstration		
(i)	Low (up to 7)	78	49.00
(ii)	Medium (8-14)	67	42.00
(ii)	High (Above 14)	15	9.00
3.	Farmer's perceptions towards on-farm trials		
(i)	Low (up to 5)	95	59.00
(ii)	Medium (6-14)	38	24.00
(ii)	High (Above 14)	27	17.00
4.	Farmer's perceptions towards teaching and subject matter/		
(i)	quality of scientist		
(ii)	Low (up to 16)	55	34.00
(iii)	Medium (17 to 23)	75	47.00
	High (Above 23)	30	19.00
5.	Farmer's perceptions towards physical facilities		
(i)	Low (up to 25)	31	19.00
(ii)	Medium (26 to 35)	84	52.00
(iii)	High (Above 35)	45	28.00
6.	Farmer's perceptions towards advisory services and supplies		
(i)	Low (up to 19)	36	22.00
(ii)	Medium (20 to 28)	72	45.00
(iii)	High (Above 28)	52	32.00
7.	Farmer's perceptions towards other supporting activities		
(i)	Low (up to 12)	65	40.00
(ii)	Medium (13 to 21)	78	48.00
(iii)	High (Above 21)	17	10.00
8.	**Over all farmer's perceptions towardseffectiveness of**		
(i)	**KVKs**		
(ii)	Low effectiveness (up to 132)	58	36.00
(iii)	Medium effectiveness (133 to 178)	75	47.00
	High effectiveness (Above 178)	27	17.00

Table.3 Multiple regression analysis of selected characteristics on different dependent variables

	Training programmes			FLDs			OFTs			Teaching and subject matter/ quality of scientist		
Variables	**Coeff. (β)**	**SE**	**"t" stat.**	**Coeff. (β)**	**SE**	**"t" stat.**	**Coeff. (β)**	**SE**	**"t" stat.**	**Coeff. (β)**	**SE**	**"t" stat.**
Age	0.054	0.032	1.652 NS	0.004	0.020	0.206 NS	0.022	0.022	0.987 NS	0.006	0.015	0.444NS
Gender	6.877	1.077	6.383**	-0.367	0.659	-0.557 NS	1.855	0.746	2.486*	2.014	0.506	3.977**
Education	-0.073	1.009	-0.072 NS	-0.036	0.618	-0.059 NS	0.769	0.699	1.100 NS	1.264	0.474	2.665**
Caste	0.271	0.844	0.320 NS	1.181	0.517	2.284*	-0.638	0.584	-1.091 NS	-0.428	0.397	-1.078NS
Family type	1.942	0.968	2.005*	-0.155	0.593	-0.262 NS	0.931	0.670	1.388NS	-0.422	0.455	-0.928NS
Family size	0.156	0.152	1.031 NS	-0.154	0.093	-1.663 NS	-0.028	0.105	-0.270 NS	0.073	0.071	1.034NS
Annual income	-6.8E-0	8.1E-0	-0.836 NS	-7.2E-0	4.96 E-0	-1.461 NS	3.61E-0	5.61E-0	0.644 NS	4.82E	3.81E	1.266NS
Occupation	-1.234	0.621	-1.985*	-0.643	0.380	-1.690 NS	-0.431	0.430	-1.002 NS	0.197	0.292	0.676NS
Size of land holding	-0.321	0.210	-1.527 NS	0.191	0.129	1.482 NS	0.059	0.145	0.407NS	0.153	0.099	1.547NS
Media ownership	1.100	0.560	1.964*	-0.325	0.343	-0.948 NS	-0.543	0.388	-1.399 NS	-0.082	0.263	-0.312NS
Mass media exposure	-0.497	0.134	-3.694**	0.095	0.082	1.160 NS	-0.178	0.093	-1.918*	-0.083	0.063	-1.321NS
Extension agency contact	0.191	0.119	1.602 NS	-0.094	0.073	-1.289 NS	0.084	0.082	1.017 NS	0.094	0.056	1.683NS
Information seeking behaviour	0.275	0.129	2.124*	0.165	0.079	2.088*	0.217	0.089	2.421*	0.019	0.060	0.324NS
Social participation	-0.399	0.197	-2.016*	0.091	0.121	0.756 NS	-0.424	0.137	-3.097*	-0.318	0.093	-3.428**

$\beta_o = 40.362$, $R^2 = 0.430\beta_o = 7.144$, $R^2 = 0.121\beta_o = 7.959$, $R^2 = 0.353$; $\beta_o = 18.777$, $R^2 = 0.285$

F stat = 7.816* F stat = 1.432F stat = 5.652* Fstat=4.133* df=Regression (14) +Residual (149)=159

SE= Standard Error

* Significant at 0.05 level of probability

** Significant at 0.01 level of probability

Table.4 Multiple regression analysis of selected characteristics on different dependent variables

	Physical facilities			Advisory services and supplies			Other supporting activities,			Overall effectiveness of KVKs		
Variables	**Coeff. (β)**	**SE**	**"t" stat.**	**Coeff. (β)**	**SE**	**"t" stat.**	**Coeff. (β)**	**SE**	**"t" stat.**	**Coeff. (β)**	**SE**	**"t" stat.**
Age	0.050	0.024	2.018*	0.018	0.022	0.814NS	-0.001	0.020	-0.083NS	0.155	0.102	1.518NS
Gender	0.894	0.809	1.104NS	1.834	0.726	2.524*	1.688	0.678	2.488*	14.074	3.348	4.202**
Education	0.696	0.758	0.918NS	-1.300	0.680	-1.910*	-0.289	0.635	-0.456NS	0.828	3.137	0.264NS
Caste	-1.360	0.634	-2.143*	-0.936	0.569	-1.643 NS	-0.680	0.532	-1.278NS	-2.731	2.625	1.040NS
Family type	-0.164	0.727	0.226NS	0.799	0.653	1.224 NS	2.293	0.609	3.759**	4.624	3.010	1.536NS
Family size	-0.187	0.114	1.636NS	-0.053	0.102	-0.520NS	0.156	0.095	1.632NS	0.033	0.472	0.070NS
Annual income	9.86E	6.08E	1.621NS	0.000	5.46E	2.251*	5.94E	5.1E-0	1.164NS	0.000	0.000	0.971NS
Occupation	0.625	0.467	1.338NS	1.169	0.419	2.790**	-0.145	0.391	-0.372NS	-0.004	1.932	0.002NS
Size of land holding	0.325	0.158	2.053*	-0.208	0.142	-1.465 NS	-0.067	0.132	-0.511NS	0.232	0.655	0.354NS
Media ownership	0.782	0.421	1.857*	-0.099	0.378	-0.264 NS	-0.556	0.352	-1.575NS	0.515	1.742	0.295NS
Mass media exposure	-0.207	0.101	-2.056*	-0.086	0.090	-0.947 NS	-0.161	0.084	-1.910*	-1.110	0.418	-2.654**
Extension agency contact	-0.057	0.089	0.644NS	0.098	0.080	1.220NS	0.084	0.075	1.125NS	0.331	0.370	0.894NS
Information seeking behaviour	0.090	0.097	0.925NS	0.149	0.087	1.707 NS	0.224	0.081	2.752**	1.119	0.402	2.781**
Social participation	-0.528	0.148	-3.550**	-0.129	0.133	-0.970 NS	0.064	0.124	0.517NA	-1.588	0.615	-2.582*

β_o = 31.207, R^2 = 0.328 β_o = 19.233, R^2 = 0.266 β_o = 9.924, R^2 = 0.371 β_o =134.514, R^2 = 0.402

F stat = 5.075*

F stat =3.764*F stat = 6.120

F stat = 6.988*

df=Regression(14)+Residual(149)=159

SE= Standard Error

* Significant at 0.05 level of probability

** Significant at 0.01 level of probability

Table.5 Multiple regression analysis of selected characteristics of the farmer's and their perceptions about effectiveness of KVKs

Variables	Other supporting activities,			Overall effectiveness of KVKs		
	Regression coefficients (β) values	Standard error	"t" Value	Regression coefficients (β) values	Standard error	"t" Value
Age	-0.001	0.020	-0.083^{NS}	0.155	0.102	1.518^{NS}
Gender	1.688	0.678	2.488*	14.074	3.348	4.202**
Education	-0.289	0.635	-0.456^{NS}	0.828	3.137	0.264NS
Caste	-0.680	0.532	-1.278^{NS}	-2.731	2.625	-1.040NS
Family type	2.293	0.609	3.759**	4.624	3.010	1.536NS
Family size	0.156	0.095	1.632^{NS}	0.033	0.472	0.070NS
Annual income	5.94E	5.1E-0	1.164^{NS}	0.000	0.000	0.971NS
Occupation	-0.145	0.391	-0.372^{NS}	-0.004	1.932	-0.002NS
Size of land holding	-0.067	0.132	-0.511^{NS}	0.232	0.655	0.354NS
Media ownership	-0.556	0.352	-1.575^{NS}	0.515	1.742	0.295NS
Mass media exposure	-0.161	0.084	-1.910*	-1.110	0.418	-2.654**
Extension agency contact	0.084	0.075	1.125NS	0.331	0.370	0.894NS
Information seeking behaviour	0.224	0.081	2.752**	1.119	0.402	2.781**
Social participation	0.064	0.124	0.517NA	-1.588	0.615	-2.582*

β_o= 9.924R^2 = 0.371 β_o = 134.514R^2 = 0.402

F stat = 6.120F stat = 6.988*

* Significant at 0.05 level of probability

** Significant at 0.01 level of probability

Table.6 Performance of Training and Developmental Activities of KVKs from 2009- 2014

Year	Training Programme						Front Line Demonstrations(FLDs)						On Farm Trials (OFTs)					
	KVK Dhakrani			KVK Bageshwar			KVK Dhakrani			KVK Bageshwar			KVK Dhakrani			KVK Bageshwar		
	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%	T	A	%
April 2009-March 2010	135	98	72.6	100	88	80	135	98	72.6	100	88	80	10	10	100	10	5	50
April 2010-March 2011	121	121	100	101	93	92.1	121	121	100	101	93	92.1	7	7	100	5	5	100
April 2011-March 2012	50	60	120	101	88	87.1	50	60	120	101	88	87.1	4	4	100	7	7	100
April 2012-March 2013	95	45	47.4	64	70	109	95	45	47.4	64	70	109	4	2	50	5	4	80
April 2013-March 2014	85	78	91.8	95	79	83.1	85	78	91.8	95	79	83.1	6	6	100	8	7	87
Total (Overall Achievement)	486	402	82.71	461	418	90.67	486	402	82.71	461	418	90.67	31	29	93.54	35	28	80

(**Source**: Performance ofactivities of KVKsevaluated on the basis ofAction plan and Annual reports of KVK from 2009-2014)

It may be conclude that through secondary data and supplemented by in-depth interview and observation from the two KVKs, the achievements of KVK in respect of training programmes, FLDs and OFTs varied year to year. It may due to differences in local training needs, availability of infrastructure, availability of fund, vehicles, staff etc. Byin-depth observation, the researcher noted that different types of demonstration units have not yet been completed even after 11 years of establishment of KVK Dhakrani but in KVK Bageshwar multiple numbers of demonstrations unit were existing. Another reason could be the lack of clear guidance regarding short and long term training as it creates lots of confusion among the trainers of KVKs. So, there is a need to organize different types of vocational trainings and demonstrate the potential of newly released varieties/technology over traditional practices by KVKs with adequate facilities.

The conclusion drawn from the present study was majority of the beneficiaries were male, middle aged, medium family size, joint family, relied on farming for livelihood, marginal, medium level of media ownership, mass media exposure, extension agency contact, information seeking behaviour and low level of social participation. Over all farmers' perceptions towards effectiveness of KVKs was medium. Performance of both KVKs was good in respect of training programmes organized while performance of KVK Bageshwar in respect of FLDs was found to be better as compared to KVK Dhakrani.

Acknowledgement

The authors express their deep sense of gratitude to all farmers, scientist of ICAR-VPKAS, Uttarakhand University of Horticulture & Forestry and the Faculty of Department of Agricultural Communication, GBPUAT, Pantnagar, 263145 Uttarakhand, especially Dr. M.A. Ansari, and Dr. B. Kumar for their enormous support and cooperation to carry out the study smoothly.

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How to cite this article:

Rupesh Ranjan, M.A. Ansari, A.P. Verma, S. Shekhar and Rashit, S. 2017. Farmers' Perception towards Effectiveness of Krishi Vigyan Kendra (KVKs): A Study in Uttarakhand. *Int.J.Curr.Microbiol.App.Sci.* 6(3): 878-890. doi: https://doi.org/10.20546/ijcmas.2017.603.103