



## **Evaluation of ICAR Schemes / Approaches- Progressive Farmers Perception on KVKs Activities**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

Krishi Vigyan Kendra, Nagaon has been full-fledged established in 2004 and the institution has been working betterment of the rural livelihood till date. On the basis of Participatory Rural Appraisal (PRA), KVK, Nagaon planned different activities according to the thrust area. On the basis of requirement of the rural community various activities like On Farm Testing, Front Line Demonstration, Training were conducted in order to test performance parameters of newly released varieties of field crops and improved technologies. With an objective to evaluate the impact of different KVK activities disseminated the study was conducted in Nagaon district of Assam covering 40 numbers of beneficiaries. The primary data required for the study were collected from selected sample respondents through specially prepared schedules included the data relating to the profile of respondents, adoption of various improved agricultural practices. various approaches by which help progressive farmers to achieve their needs and found that approach like training is the highest frequency through which farmers are getting benefitted. According to the progressive farmers the various mode of dissemination through which the farmers are benefitted are Other Extension

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activities, Cluster Front Line demonstrations, Front Line Demonstration, On Farm Testing, DFI (Doubling Farmers' Income) stood 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> rank respectively and reveals farmers perceptions towards impact of KVK technologies amongst Progressive farmers and shows that high level of adoption was seen at 42 per cent followed by medium level of adoption at 40.50 per cent. Progressive farmers suggested that KVK should emphasise location specific dissemination of more numbers of latest technologies on agriculture and allied sector followed by steady cooperation. Mechanization, Organic farming, Market network and Horticultural sector ranks 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> respectively in order to increase effectiveness of KVK system according to them. It can be recommended that more research works should be done for farmers friendly technology innovation, mechanized agriculture should be popularized to enhance productivity through establishment of sufficient numbers of Custom Hiring Centre and establishment of proper functioning organized market should be developed through Govt. policies.

*Keywords: Progressive; adoption; livelihood; dissemination; technology.*

## 1. INTRODUCTION

The Krishi Vigyan Kendra deals with different extension activities viz., On farm trails, Frontline, trainings, Scientific awareness, supplement of quality seed etc. which ultimately leads to movement of time need based technology sources from farmers to farmers. Katolee et al (2017) concluded in their findings that adoption level of knowledge had been increased thorough among farmers and farmers were able to improve their managerial task, technological changes through technical guidance and training demonstrated through KVK [1]. Barman et. al (2020) stated that KMAS as ICT tool has emerged as one of the best approaches for disseminating agricultural information dissemination through main line extension system of Krishi Vigyan Kendras [2]. Krishi Vigyan Kendra, Nagaon has been full-fledged established in 2004 and the institution has been working betterment of the rural livelihood till date. On the basis of Participatory Rural Appraisal (PRA), KVK, Nagaon planned different activities according to the thrust area. On the basis of requirement of the rural community various activities like On Farm Testing, Front Line Demonstration, Training were conducted in order to test to test performance of newly release varieties of field crops and improved technologies. Prasad et. al (2018) included in their report the inclusion of various parameters along with their performance for the evaluation of KVKs in order to rank the KVKs [3]. Besides these other programs were organized viz., awareness programme, field day, kisan mela, exhibition, seminar, workshop, diagnostic visit, farmers scientists' interaction in order to uplift rural income. Ananth et. al (2018) described in their review on the innovative extension approaches report about KVK spreading under

diverse host institutions in India along with detailed of innovative extension standard approaches of KVK [4]. Chhodvadia et. al. (2016) reported that a total 5683 numbers of other Extension activities Amreli District of Gujarat State viz., field day, lectures, radio talk, scientist visit to farmer's field, farmer fair, diagnostic service etc. and found that awareness had been increased among the farmers by 69.64% [5].

## 2. MATERIALS AND METHODS

With an objective to evaluate the impact of different KVK activities disseminated the study was conducted in Nagaon district of Assam covering 40 numbers of beneficiaries.

The primary data required for the study were collected from selected sample respondents through specially prepared schedules included the data relating to the profile of respondents, adoption of various improved agricultural practices. Shankar et al. [6] analyzed impact of interventions given by KVK between adopting and non-adopting farmers and found that there is a significant difference in knowledge score of 7 between adopters and non-adopters indicating significant difference in the knowledge gained by adopting farmers over non-adopting farmers [6]. The entire schedule was sent by Agricultural Technology Research Institute (ATARI), Zone -IV to Krishi Vigyan Kendras, Nagaon with an objective to measure the overall evaluation ICAR schemes. The overall study has been divided into the following objectives. 1. Dissemination mode, technology adopted and Impact of KVK activities 2. Best practices, Constraints in adoption of technology with future suggestion. Further, tabular, percent, frequency analysis with proper analytical tools were used in order to interpret the findings.

### 3. RESULTS AND DISCUSSION

Singh et al. [7] also stated that method and need of the certain technology affects farmers vertical and horizontal spread of particular technology and concluded that Front line demonstration found to be also helped in replacement of local unrecommended practices with improved recommended practices [7]. Parameters representing farmers opinion on technology dissemination mode, approaches, impact of different KVK activities are analyzed below. From Table 1 It is clearly evident that Singhal and Vatta (2017) studied impact of Krishi Vigyan Kendra in Jodhpur district Rajasthan and found that majority of the farmers adopted improved agricultural production at 85 per cent whereas very few of respondents had low adoption rate of 15.83 per cent [8]. Singh et al. [9] examined the development of KVKs along with strategies needed for future development and concluded 20 per cent of the total farmers extension network through progressive farmers followed by media including radio, TV, newspaper (19.6%) and private commercial agents (7.4%) [9].

The data depicted in Table-1 showed that, dissemination mode by social media viz., Facebook, whats app are found in regular basis whereas dissipations of technology is highest through various demonstrations by KVK, Nagaon at 70 per cent. Table 2 stated various approaches by which help progressive farmers to achieve their needs and found That approach like Training is the highest frequency through which farmers are getting benefitted. According to the progressive farmers the various mode of dissemination through which the farmers are benefitted are Other Extension activities, Cluster Front Line demonstrations, Front Line Demonstration, On Farm Testing, DFI stood 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> rank respectively. Table 4 reveals farmers perceptions towards impact of KVK technologies amongst Progressive farmers and shows that 42 per cent of the respondent had high level of adoption and adoption at medium level was 40.50 per cent. Coverage of small and marginal, farmers was 50 per cent which was found be highest among equity coverage according to the progressive farmers. Table 5 stated the different option of farmers for

**Table 1. Dissemination mode used by the KVK (%)**

Sl. no.	Dissemination mode	Frequently	Mostly	Occasionally
1.	Visit by KVK scientist	-	37.50	62.50
2.	Demonstration	-	70.00	30.00
3.	Print Media	-	42.50	57.00
4.	Electronic media	-	15.00	85.00
5.	Social Media	12.50	37.50	50.00
6.	Any other	-	-	100.00

**Table 2. Approaches by which progressive famers are getting benefitted**

Sl. no	Means of approach	Frequency (%)	Rank
1	Front Line Demonstration	11(27.50)	IV
2	On Farm Testing	15(37.50)	V
3	Training	35(87.50)	I
4	CFLD	28 (70)	III
5	Other Extension activities	30 (75)	II
6	DFI	4 (10)	VI
7	Others	2 (5)	VIII

**Table 3. Impact of KVK activities – Farmers perception**

Sl. no	Parameters	Frequency (%)
<b>A. Training</b>		
1.	Trainings imparted by KVK are need based	52.50
2.	KVK trainings have contributed in gain in knowledge	37.50
3.	Design and content of training are effective	45.00
4.	There is enhancement in skill by training	25.00
5.	Time of the training is appropriate	60.00
6.	Farmers are well informed before training	77.50

Sl. no	Parameters	Frequency (%)
7.	Mode of training is effective and easy to understand	47.500
8.	KVK interventions have enhanced our confidence	27.5
9.	Skill Development trainings have led to entrepreneurial development	17.50
10.	There is positive change in attitude after the training about technology	32.00
<b>B. Frontline demonstrations</b>		
1.	Contributed in replacement of variety	87.50
2.	Increased production (yield)	80.00
3.	Increased income	62.50
4.	Led to crop diversification	30.00
5.	Farmer can rely on KVK for their farm needs	22.50

**Table 4. Distribution of Progressive Farmer according to different parameters [N=40]**

Sl. no	Parameters		Frequency (%)
1	Relevancy of Interventions transferred by KVK	Most Relevant	30.00
		Relevant	70.00
		Not Relevant	-
2	Sustainable agriculture development efficiency	Most effective	20.00
		Effective	65.00
		Not effective	15.00
3	Equity issue Coverage	Small and marginal get covered	50.00
		Weaker sector categories covered	25.00
		Women and farm youth covered	25.00
		Only large farmers are covered	-

**Table 5. Opinion of Progressive farmers in making KVK system more effective 3 (N=40)**

Sl. no	Opinion	Frequency (%)	Rank
1	Emphasise should be given in more numbers latest technologies on agriculture and allied sector	55.00	I
2	Steady cooperation in future	30.00	II
3	Should emphasised on Improved Market Networking	5.00	VI
4	Emphasis should be given in Mechanization	20.00	III
5	More awareness in Organic Farming	15.00	IV
6	More emphasis should be given in horticultural sector	10.00	V

making KVK system more effective and further most of the beneficiaries suggested that KVK should focus for dissemination of latest scientific technologies on agriculture and allied sector for the benefit of farmers followed by steady cooperation. Mechanization, Organic farming, Market network and Horticultural sector ranks 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> respectively in order to increase effectiveness of KVK system according to them.

#### 4. CONCLUSION

Transferring Lab to land programme for the betterment of rural life, Krishi Vigyan Kendras have been established by Indian Council of Agricultural Research (ICAR) and hence KVK

plays major role for motivation of farmers towards appropriate technology adoption for better productivity. On the basis of Participatory Rural Appraisal (PRA), KVK, Nagaon planned different activities according to the thrust area. On the basis of requirement of the rural community various activities like On Farm Testing, Front Line Demonstration, Training were conducted in order to test to test the yield potentiality of newly released varieties of field crops and improved technologies. Transfer of technologies by social media viz., Facebook, whats app are found in regular basis whereas dissemination of technology is highest through various demonstrations by KVK, Nagaon at 70 per cent indicating that social media plays huge

role of technology dissemination. Table 5 described about opinion of Progressive farmers in making KVK system more effective based on which few recommendations were suggested:

- 1) More research works should be done for farmers friendly technology innovation through implementation of government project
- 2) It can be recommended that mechanized agriculture should be popularized to enhance productivity through establishment of sufficient numbers of Custom Hiring Centre
- 3) Establishment of proper functioning organized market should be developed through Govt. policies to increase producers share in consumer rupee with less involvement of middlemen

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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