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Kadli Veeresh
Department of Agricultural Economics, College of Agriculture, University of Agricultural Sciences, Dharwad, Karnataka, India

Dr. Hosmani SB
Department of Agricultural Economics, College of Agriculture, University of Agricultural Sciences, Dharwad, Karnataka, India

Correspondence
Kadli Veeresh
Department of Agricultural Economics, College of Agriculture, University of Agricultural Sciences, Dharwad, Karnataka, India

Adoption Status of the KVK interventions- A case study of KVK, Dharwad

Kadli Veeresh and Dr. Hosmani SB

Abstract
Krishi Vigyan Kendra (KVK), the light house for rural people, is an innovative science based institution, which undertakes vocational training of farmers, farm women, and rural youths, conducts on-farm research for technology refinement and organizes frontline demonstrations to promptly demonstrate the latest agriculture technologies to the farmers as well as the extension workers. The study was conducted in Dharwad district of Karnataka and KVK, Dharwad was purposively selected. Further, a sample of 40 respondents who were influenced by the three most important income and employment enhancing interventions namely household enterprise, vermicomposting and seed production were be selected randomly. Thus, in all, the sample consists of 120 respondents. It was clear that respondents were found in high adoption category with respect to vermicelli (62.50%), vermicompost production practice (60.00%) and seed production practices (37.50%).

Keywords: Adoption Status, KVK, Adoption Index, Interventions

Introduction
The scientific research is advancing fast and new techniques are being added continuously. Without the spread of these agricultural innovations from research systems to client, the problems of Indian farmers remain un-solved.

To propel Indian agriculture into 21st century, the quality, technical skills and management of agriculture manpower must improve in consonance with rapidly changing national and global market needs. If any organization wishes to assume a leadership role, it has no option but to strengthen its human resource base. The Indian Council of Agriculture Research (ICAR) is fully of this issue and hence providing highest priority to the human resource development in 10th five year plan through Agricultural Human Resource Development Project. There were four main ToT projects of ICAR, viz. All India Co-ordinated Project on National Demonstrations (AICPND), Operational Research Project (ORP), Krishi Vigyan Kendra (KVK) and Lab to Land Programme (LLP). All these projects were of mobile type except the KVKs, which are vocational training institutions and district knowledge centre.

The new technologies and new factors of production must be the basis for growth in agriculture which requires fresh knowledge, skills and sources of information for the farmers. Several organized efforts have been made in the recent years to disseminate the agricultural technologies with greater speed. Therefore, training is the important need of the farming community in this technological era. The ultimate effectiveness of any programme depends on the ability of the farmers to make sound decisions based on the understanding of the alternatives opened to them and on appraisal of their consequences. In order to inculcate sound, practical oriented, need based, location specific decision making capacity and to update their knowledge, training is vital.

In this context, appropriate training of practicing farmers, extension personnel and the agricultural teachers and trainers is very crucial in increasing agricultural production. This aspect has received the attention of various educational institutions in varying degrees, but they seem to have suffered in terms of (a) weak subject-matter support, (b) academic approach and methods of training, (c) absence of facilities for practical training, (d) training programmes unrelated to immediate needs, (e) stress on quantity rather than quality and (f) limited financial support for training infrastructure. To overcome these serious barriers to agricultural production, the scheme Krishi Vigyan Kendra (KVK) was initiated by the Indian Council of Agricultural Research (ICAR).

Krishi Vigyan Kendra (KVK), the light house for rural people, is an innovative science based institution, which undertakes vocational training of farmers, farm women, and rural youths, conducts on-farm research for technology refinement and organizes frontline demonstrations to promptly demonstrate the latest agriculture technologies to the farmers as well as the

extension workers. The KVK functions on the principles of collaborative participation of scientists, subject-matter experts, extension workers and farmers.

Presently, there are 637 KVKs in the country, of which 538 KVKs are managed by SAUs or ICAR and 99 KVKs by NGOs. In Karnataka, there are totally 31 KVKs of which 27 KVKs are managed by SAUs and 4 KVKs are managed by NGOs. In India more than 33 per cent of KVKs are managed by the NGOs. In view of the considerable growth in the number of KVKs and their increasing demands and utility to the rural areas, there is a need to conduct a systematic analytical study with respect to KVKs managed by UAS and also NGO. KVKs in terms of knowledge, economic impact and adoption among the farmers, infrastructure facilities available, budget sanctioned and utilized by KVKs and constraints faced by the scientists and farmers in successful implementation of activities.

The present study would be useful and important for making modifications in KVKs training programmes, restructuring the course content in the light of the need based programmes and also it helps in modifying training methodologies more practical and skill oriented. It helps to understand the respondent's knowledge, economic status and adoption level about selected interventions.

The study also throws light in knowing the constraints faced by the beneficiaries in the adoption of improved practices viz., vermicomposting, seed production and household enterprises and also the suggestions from the beneficiaries to overcome.

Materials and Method

The KVK, Saidapur managed by the University of Agricultural Sciences (UAS), Dharwad was purposively selected for the study owing to convenience and cost considerations.

Keeping in view the objectives of the study. Further, a sample of 40 respondents who were influenced by the three most important income and employment enhancing interventions namely household enterprise, vermicomposting and seed production were be selected randomly. Thus, in all, the sample consists of 120 respondents.

The study was based on the primary data. The sample farmers were interviewed personally by using pretested schedule. Information on socio-economic profile of the farmer and adoption status of selected interventions were collected.

Adoption Index

Adoption is the mental process through which an individual passes from first hearing about an innovation to final use of that innovation (Rogers. 1962). In the present study adoption was operationally defined as the extent to which improved vermicomposting techniques, seed production practices and household enterprise (vermicelli) practices were adopted by the respondents.

In order to measure the adoption quantitatively, important improved cultivation practices recommended for vermicomposting, seed production practices and household enterprise (vermicelli) were considered. There were ten important practices for measuring the adoption of vermicompost, eleven practices for the adoption of seed production and eight practices for the adoption of household enterprise (vermicelli) by the respondents.

To measure level of adoption, recommended important practices were listed and responses for the adoption of each practice was obtained. A numerical score of 3 was assigned for full adoption, while a score 2 was assigned for partial adoption and 1 was assigned for non-adoption.

Scores of all identified practices were summed up. This sum total was indicative of adoption level of that particular individual respondent. The maximum and minimum adoption score that could be obtained by individual was 30 and 10 respectively for vermicomposting and for seed production training the maximum and minimum individual adoption score was 33 and 11 respectively and it was 24 and 8 for adoption of household enterprise training. Finally, these raw adoption scores were converted into adoption index using following formula.

$$\text{Adoption index} = \frac{\text{Adoption score obtained}}{\text{Maximum obtainable adoption score}} \times 100$$

Results and Discussion

Adoption level of different enterprises by the respondents

Following are the details pertaining to adoption of different enterprises.

Adoption index of the respondents on different enterprises.

The data pertaining to the respondents based on adoption index is presented in Table 1. It was clear that respondents were found in high adoption category with respect to vermicelli (62.50%), vermicompost production practice (60%) and seed production practices (37.50%). The percentage of farmers belong to medium adoption category was 10 per cent, 55 per cent and 10 per cent with respect to vermicompost, seed production and vermicelli production technologies. Where as in the case of percentage of farmers belong to low adoption category was 30 per cent, 7.50 per cent and 27.50 per cent with respect to vermicompost, seed production and vermicelli production technologies. This was mainly due to timely follow up visits by the scientists to the farmers fields to provide guidance on field problems. A comparison of mean adoption scores of the respondents of three training programmes studied supported above findings. The respondents of KVK, Dharwad had significantly higher mean adoption scores. Similar findings were observed by Khin Mar Oo (2005) [2].

Adoption level of vermicompost technology by respondents

It was seen from Table 2 that, the respondents high percentage of adoption was found in fully adoption of improved technologies of vermicompost production. The respondents had fully and partially adopted the practices like selection of pit (70% and 30%), pit size (65% and 35%), materials used for pit construction (80% and 20%), raw materials used for filling the pit (82.50% and 17.50%), sequential method of filling pits (42.50% and 57.50%), placement of worms to pit (52.50% and 47.50%), method of watering (90% and 10%), and time of harvesting (67.50% and 32.50%). Higher adoption was mainly due to community organizers at village level helped in motivating farmers to adopt the technologies. The partial adoption of the practices was relatively low and none of the respondents fall under non adopted category. The results were in agreement with the findings of Kharatamol (2006) [1] who reported that high majority of vermicompost trained farmers had adopted the practices like material used for pit construction, material used for filling the pit and harvesting of the vermicompost.

Adoption level of soyabean seed production by respondents

The results of adoption level of soyabean seed production by respondents was presented in Table 3. It was found that respondents high percentage of adoption was found in fully adoption of improved technologies of soyabean seed production. The respondents had fully and partially adopted the practices like land requirement (well-drained and free from volunteer plants) (77.50% and 22.50%), isolation (3 mts) (90.00% and 10.00%), time of sowing (First fortnight of July) (92.50% and 7.50%), source of seed (92.50% and 7.50%), method of sowing (planted in rows with drill, 2-3cm depth) (77.50% and 22.50%), spacing (R-R: 45-60cm, P-P: 4-5cm) (82.50% and 17.50%), seed Rate (65-70 Kg/ha) (80 % and 20.00%), chemical fertilizer applied (72.50% and 27.50%), irrigation (flowering, seed development and maturation stage) (85% and 15%), roguing (77.50% and 22.50%) and harvesting (2nd week of October) (92.50% and 7.50%). The fully adoption of practices were mainly due to profitability of seed production. It was very clear from the results that growth regulator practice was not adopted by any one, which needs to be reemphasized through proper extension educational activities. This was in conformity with the findings of the studies of Saravana (1996) [2].

Adoption level of vermicelli technology by respondents

The results presented in Table 4 indicated that high percentage of adoption was found in full adoption of practices vermicelli production (Household Enterprise). The respondents had fully and partially adopted the practices like quality of chiroti-rawa (Semolina) (Grade-1) (70% and 30%), ratio of rawa and water (1:0.8) (92.50% and 7.50%), drying time (7 pm to 12 am) (95.00% and 5.00%), recommended production season (Jan- Apr) (92.50% and 7.50%), storage durability (4 years) (72.50% and 27.50%), value addition (CR + Finger millet, CR + Foxtail millet) 60% and 40%), ratio of CR + Finger millet (50:50) (57.50% and 42.50%) and ratio of CR + Foxtail millet (50:50) 62.50% and 37.50%). This might be due to the easily availability of raw materials like chiroti-rawa (Semolina) and foxtail millet. The adoption quite high because of seasonal specificity and the more demand for vermicelli from urban areas, this might be due to location of the villages in the peri-urban area very close to Hubli-Dharwad cities. The above results were in accordance with the findings of Shreeshilaja (2000) [5].

Conclusion

The analysis of adoption status of different interventions revealed that, respondents were found in high adoption category with respect to vermicelli (62.50%), vermicompost production practice (60.00%) and seed production practices (37.50%). A few farmers fall under the category of partial adoption. To enhance the adoption rate there is a need for post training follow up, exposure visits and incentives based motivations were essential if the training efforts of the KVKs were to result in intended outcomes. Hence, trained farmers need to be regularly followed up to monitor their performance and problems.

Table 1: Adoption index of the respondents on different enterprises

Category	Vermicompost (n=40)		Category	Seed Production (n=40)		Category	Vermicelli (n=40)	
	f	Per cent		*f*	Per cent		*f*	Per cent
Low (Upto 86.29)	12	30.00	Low (Upto 90.69)	3	7.50	Low (Upto 85.96)	11	27.50
Medium (In between 86.29 to 96.87)	04	10.00	Medium (In between 90.69 to 98.41)	22	55.00	Medium (In between 85.96 to 95.36)	4	10.00
High (More than 96.87)	24	60.00	High (More than 98.41)	15	37.50	High (More than 95.36)	25	62.50
Total	40	100.0	Total	40	100.00	Total	40	100.00
Mean	91.58		Mean	94.55		Mean	90.41	
SD	12.45		SD	9.08		SD	11.64	

Table 2: Adoption pattern of improved technology of vermicompost by the respondents

S1 No.	Particulars	Fully adopted		Partially adopted	
		No.	Per cent	No.	Per cent
1	Selection of site	28	70	12	30
2	Pit size (10x1x3 mts)	26	65	14	35
3	Materials used for pit construction	32	80	8	20
4	Pit treatment before filling	31	77.50	9	22.50
5	Raw materials used for filling of pit	33	82.50	7	17.50
6	Sequential method of filling pits	17	42.50	23	57.50
7	Placement of worms to pit	21	52.50	19	47.50
8	Method of watering	36	90	4	10
9	Time of harvesting	33	82.50	7	17.50
10	Method of harvesting	27	67.50	13	32.50

Table 3: Adoption pattern of improved cultivation practices of soyabean seed production by the respondents

S1 No.	Particulars	Fully adopted		Partially adopted	
		No.	Per cent	No.	Per cent
1	Land Requirement (well-drained and free from volunteer plants)	31	77.50	9	22.50
2	Isolation (3 mts)	36	90	4	10
3	Time of Sowing (First fortnight of July)	37	92.50	3	7.50
4	Source of Seed	37	92.50	3	7.50
5	Method of Sowing (planted in rows with drill, 2-3cm depth)	31	77.50	9	22.50
6	Spacing(R-R: 45-60cm, P-P: 4-5cm)	33	82.50	7	17.50

7	Seed Rate (65-70 Kg/ha)	32	80.00	8	20
8	Chemical fertilizer applied: N (20-25 Kg) P (80-100 Kg) K (30-40 Kg)	29	72.50	11	27.50
9	Irrigation (flowering, Seed development and Maturation stage)	34	85	6	15
10	Roguing	31	77.50	9	22.50
11	Harvesting (II week of October)	37	92.50	3	7.50

Table 4: Adoption pattern of improved practices in vermicelli production (Household Enterprise) by the respondents

S1. No.	Particulars	Fully adopted		Partially adopted	
		No.	Per cent	No.	Per cent
1	Quality of Chiroti-rawa (Semolina) (Grade-1)	28	70.00	12	30.00
2	Ratio of rawa and water (1:0.8)	37	92.50	3	7.50
3	Drying time (7pm to 12am)	38	95.00	2	5.00
4	Recommended production season (Jan- Apr)	37	92.50	3	7.50
5	Storage durability (4years)	29	72.50	11	27.50
6	Value addition (CR + Finger millet, CR + Foxtail millet)	24	60.00	16	40.00
7	Ratio of CR + Finger millet (50:50)	23	57.50	17	42.50
8	Ratio of CR + Foxtail millet (50:50)	25	62.50	15	37.50

References

1. Kharatmol. Impact of trainings conducted on vermicompost by Krishi Vigyan Kendra, Bijapur. *M. Sc.* (Agri.) Thesis, Univ. Agric. Sci., Dharwad India, 2006,
2. Khin Mar Oo. Knowledge and adoption of improved dairy management practices by women dairy farmers in Dharwad district. M. Sc. (Agri.) Thesis, Univ. Agric. Sci., Dharwad India, 2005.
3. Ramasubramanian M, Senguttuvan T, Dhamodaran T. Impact analysis of interventions of KrishiVigyana Kendra on composite carp culture in Cauvery delta region of Tamil Nadu. J Extn. Edu. 2011; 23(1):4581-4591.
4. Saravana R. A study on management of mango gardens by farmers in KrishanagiriTaluk of Dharmapuri District, Tamil Nadu M. Sc. (Agri.) Thesis, Univ. Agric. Sci., Dharwad, India, 1996.
5. Shreeshailaja KT. Factors influencing the productivity of milch animals managed by dairy farm women in Eastern Dry zone of Karnataka. Ph. D. Thesis, Kerala Agric. Univ. Thrissur, 2000.
6. Sridhar G, Srihari Rao B, Malleswararao SSN, Patil DV. Empowering rural community with improvement in knowledge level and livelihood through kvks: Impact and Cases in Vishakapattanam district of Andhra Pradesh. International J Scientific Engineering Res. 2013; 1(2):13-20.