Research Article

Knowledge level of farmers about vermicompost production technologies

■ S.G. ASKI AND L.V. HIREVENKANAGOUDAR

SUMMARY : The research study was conducted in Gadag and Haveri districts of Karnataka state with of 60 respondents. Study revealed that higher knowledge of vermicompost was observed in respondents of KVK, Hulakoti followed by KVK, Hanumanamatti. The respondents of KVK, Hulakoti had significantly higher knowledge level about vermicompost enterprises in comparison to those of KVK, Hanumanamatti. These results reiterate the overall superiority of KVK, Hulakoti in terms of promoting the technologies through training intervention. The knowledge about practices like selection of site (76.67% and 60.00%), pit size (50.00% and 40.00%), materials used for pit construction (60.00% and 56.66%) and raw-materials used for filling the pit (70.00% and 60.00%) in case KVK Hulakoti and Hanumanamatti, respectively. Forty per cent of respondents of Hulakoti had knowledge about sequential method of filling the pit, placement of worms in pit and method of harvesting. Only 36.66 per cent of Hanumanamatti respondents had knowledge about sequential method of filling the pit and method of harvesting.

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BACKGROUND AND OBJECTIVES

Agriculture accounts for 26 per cent of India's economy and 64 per cent of labour force. In some states, it accounts for 40 per cent of the domestic product. Agriculture also accounts for 18 per cent of India's exports. Agriculture growth has on impact on poverty eradication. Its development also helps in containing inflation, raising agricultural wages and increasing employment generation.

The present growth rate of population in India demands a production of additional 5-6 million tonnes of food grains every year for ensuring food security of the country. This is a major challenge for the policy makers, planners, administrators, agricultural scientists and extension workers of the country. This calls for the reassessment of the existing roles, mission and strategies related to technology generation, technology assessment and refinement and dissemination in the field of agriculture and allied sectors. Considering the major challenges in agriculture including the need for enhanced productivity and enhanced profitability there is a need for effective technology dissemination.

The Krishi Vigyan Kendra (Farm Science Centre) is an innovative science based institution which undertakes vocational training programmes for farmers, farm women and rural youth conducts on farm research for technology refinement and frontline demonstrations to promptly demonstrate the latest agricultural technologies to the farmers as well as the extension workers.

The training of farmers is a critical input for the rapid transfer of agricultural technologies. The present rate of agricultural production can be doubled if the available technologies are brought to bear with the production process and programmes focusing more and more on

transferring our new technologies away from the confines of laboratories and research institutions to the farmers and make them more result and work oriented. In this context, training plays an important role to the farming community in boosting their farm production. Vocational training for the farmer proved to be a significant input in accelerating our farm production. Information regarding agriculture inputs like improved seeds, suitable manures and fertilizers, plant protection measures, credit requirements etc. need urgent attention for fulfilling these tasks.

According to the mandate of KVK, it broadly organizes vocational training programmes in the field of Crop Production, Horticulture, Livestock Production, Fisheries, Sericulture, Home-Science and Agricultural Machineries and implements other allied vocations, undertakes on farm testing/research for validating and refining location specific technologies and laying out front-line demonstrations.

Looking at KVKs growth and their increasing demand and utility, it was felt necessary to undertake a study on the knowledge level of farmers about vermicompost production technologies as this is one of the important and maximum number of training programme organized by KVK. The findings of the study will help to understand the knowledge of the trained farmer's and management efficiency of KVK. Keeping these things in view, the present study was undertaken to know the knowledge level of the beneficiaries of KVKs regarding vermicompost production technologies.

RESOURCES AND METHODS

The present study was conducted in two KVKs, one managed by University of Agricultural Sciences, Dharwad and the other by NGO. KVK, Hanumanamatti and KVK Hulakoti were selected, to represent University of Agricultural Sciences, Dharwad and NGO managed KVKs, respectively, as both of them were the oldest KVKs established in North Karnataka. During the year 2003 and 2004, KVKs had conducted 250 training programmes in the disciplines of crop science, animal science, horticulture, vermicompost, plant protection and home science. Among these courses, the important course *viz.,* vermicompost was considered for the study based on the highest numbers of training programmes conducted by both the KVKs.The list of respondents, who had undergone training

programmes during 2003 and 2004 in the areas of vermicompost was obtained from the respective KVKs. Thirty respondents from each KVK were selected randomly for the study, thus, constituting the total number of 60 respondents. In the light of the objectives set for the study, the variables *viz.*, knowledge on vermicompost practices were the main items of investigation. For the present study, knowledge test as suggested by Anastasi (1961) was employed. The knowledge test was constructed based on the package of practices and in consultation with the scientists of University of Agricultural Sciences, Dharwad and KVK scientists. Finally 42 important improved practices of vermicompost. The answers to these questions were quantified by giving one score to the correct answer and zero score to the incorrect one. The total scores obtained on all practices were considered as knowledge scores of an individual. The maximum and minimum scores that have been obtained for an individual respondents for vermicompost was 42 and minimum zero. A pre-tested interview schedule was used to collect the data through personal interview method. The data collected were tabulated and analyzed by using suitable statistical measures (Panse and Sukhatme, 1967).

OBSERVATIONS AND ANALYSIS

The experimental findings obtained from the present study have been discussed in following heads:

Knowledge level of the respondents about vermicompost :
Distribution of respondents based on the knowledge index :

The distribution of respondents based on knowledge index is presented in Table 1. It can be observed that, 40.00 per cent of respondents of KVK Hulakoti belonged to high knowledge level category with respect to vermicompost, where as 43.33 per cent of respondents of KVK Hanumanamatti were belonged to low knowledge level category.

Comparison of knowledge level about vermicompost enterprises of KVK, Hulakoti and Hanumanamatti respondents :

The knowledge level of respondents of two KVKs studied were analyzed in terms of mean knowledge scores and their level of significance was tested by computing 't' values.

Table 1: Knowledge index of the respondents about vermicompost enterprises (n=60)

Category	KVK Hulkoti Vermicompost (n_1=30)		KVK Hanumanamatti vermicompost (n_2=30)	
	Knowledge index			
	F	%	F	%
Low	9	30.00	13	43.33
Medium	9	30.00	9	30.00
High	12	40.00	8	26.67
Total	30	100	30	100
Mean	61.00		46.79	

It clearly shows that the respondents of KVK, Hulakoti had significantly higher knowledge level about vermicompost enterprises in comparison to those of KVK, Hanumanamatti. These results reiterate the overall superiority of KVK, Hulakoti in terms of promoting the technologies through training intervention (Table 1).

The comparison of knowledge levels of respondents of the two KVKs reveal, that, farmers trained by KVK Hulakoti had better knowledge than those trained by KVK Hanumanamatti in vermicompost areas as noticed from the results of Table 1 and 2. This could be attributed to the superiority of KVK Hulakoti in terms more emphases on practicals, skills orientation, use of appropriate audio-visuals during the training programmes to gain good knowledge.

The KVK Hulakoti recorded more number of respondents in high and medium knowledge categories and less number in low category in contrast to the other KVK. Hence, it was mainly due to use of appropriate teaching aids, more practical opportunities given to the participants (Table 2). The above findings were in accordance with the findings of Sathiadas *et al.* (2003), Raghunandan (2004), Sunil Kumar (2004) Khin (2005), Chaudhari (2006) and Reddy (2006).

Knowledge level of respondents about individual vermicompost practices :

The data presented in Table 3 indicate that, the respondents were having knowledge about practices like selection of site (76.67% and 60.00%), pit size (50.00% and 40.00%), Materials used for pit construction (60.00% and 56.66%) and raw-materials used for filling the pit (70.00% and 60.00%) in case KVK Hulakoti and Hanumanamatti, respectively. Forty per cent of respondents of Hulakoti had knowledge about sequential method of filling the pit, placement of worms in pit and method of harvesting.Only 36.66 per cent of Hanumanamatti respondents had knowledge about sequential method of filling the pit and method of harvesting.

The majority of the vermicompost respondents gained knowledge about selection of site, materials used for pit construction and also raw material used for pit filling, time of harvesting and harvesting method in both KVKs. However, respondents of KVK Hulakoti found to have higher knowledge compared to KVK Hanumanamatti. As the vermicompost was a new subject for them and simple in nature, they might have shown good interest to understand the various aspect of vermicomposting technology.

High knowledge level of vermicompost technology in KVK, Hulakoti was due to good number of demonstration units and involvement of progressive farmers as a resource persons and follow up visits to the farmers fields by the scientists. Further, innovative method using technology leaders for rapid technology dissemination was another reason

Table 2 : Comparison of vermicompost knowledge level of KVK, Hulakoti and Hanumanamatti respondents (n=60)

Enterprise	Mean knowledge score		't' value
	KVK Hulakoti	KVK Hanumanamatti	
Vermicompost	61.00	49.79	3.12**

* and ** indicate significance of values at P=0.05 and 0.01, respectively

Table 3: Knowledge level of respondents about individual practice of vermicompost (n=60)

Sr. No.	Practices	Respondents of KVK Hulakoti (n₁=30)		Respondents of KVK Hanumanamatti (n₂=30)	
		Knowledge		Knowledge	
		F	%	F	%
1.	Selection of site	23	76.67	18	60.00
2.	Pit size (10 x 1 x 0. 33mts)	15	50.00	12	40.00
3.	Materials used for construction of pit	18	60.00	17	56.66
4.	Raw materials used for filling the pit	21	70.00	18	60.00
5.	Sequential method of filling the pit	12	40.00	11	36.66
6.	Placement of worms to pit	12	40.00	12	40.00
7.	Method of watering	17	56.66	13	43.33
8.	Time of harvesting	18	60.00	14	46.66
9.	Method of harvesting	12	40.00	11	36.66

for this observation.

The above findings were in agreement with the findings of Kharatmol (2006) who observed that, majority of trained farmers were having higher knowledge about the practices like construction of vermicompost pit, pit filling, watering and harvesting.

Conclusion :

The majority of the vermicompost respondents gained knowledge about selection of site, materials used for pit construction and also raw material used for pit filling, time of harvesting and harvesting method in both KVKs. Only 36.66 per cent of Hanumanamatti respondents had knowledge about sequential method of filling the pit and method of harvesting. The practices like sequential method of filling the pit and method of harvesting is to be reconsider while giving the future training programmes and also while developing the course content.

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REFERENCES

Anastasi, A. (1961). *Psychological testing.* The McMillan Company, New York.

Chaudhari, R.R. (2006). A study on entrepreneurial behaviour of dairy farmers. Ph. D. Thesis, University Agricultural Sciences, Dharwad, KARNATAKA (INDIA).

Gomez, K.A. and Gomez, A.A. (1984). Statistical procedures for agricultural research. John Wiley and sons, Inc. LONDON, UNITED KINGDOM.

Kharatmol (2006). Impact of trainings conducted on vermicompost by Krishi Vigyan Kendra, Bijapur. M.Sc. (Ag.) Thesis, University Agricultural Sciences, Dharwad, KARNATAKA (INDIA).

Khin, Mar Oo (2005). Knowledge and adoption of improved dairy management practices by women dairy farmers in Dharwad district. M.Sc. (Ag.) Thesis, University Agricultural Sciences, Dharwad, KARNATAKA (INDIA).

Panse, V.G. and Sukhatme, P.V. (1985). *Statistical methods for agricultural workers*, Indian Council of Agricultural Research, NEW DELHI, INDIA.

Raghunandan, H.C. (2004). A study on knowledge and adoption level of soil and water conservation practices by farmers in Northern Karnataka. M.Sc. (Ag.) Thesis, University Agricultural Sciences, Dharwad, KARNATAKA (INDIA).

Sathiadas, R., Noble, D., Sheela Immandel Jayan, K.N. and Sindhu Sadanandan (2003). Adoption level of scientific dairy farming practices by IVCP farmers in the coastal agro-ecosystem of Kerala. *Indian J. Soc. Res.*, **44** (3) : 243-250.

Sunil Kumar, G.M. (2004). A study on farmers knowledge and adoption of production and post harvest technology in tomato crop of Belgaum district in Karnataka M.Sc. (Ag.) Thesis, University Agricultural Sciences, Dharwad, KARNATAKA (INDIA).

Venkatashiva Reddy, V. (2006). Knowledge and adoption of integrated pest management practices among vegetable growers of Gadag district in North Karnataka. M.Sc. (Ag.) Thesis, University Agricultural Sciences, Dharwad, KARNATAKA (INDIA).

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