Knowledge level of trained farmers about mango cultivation practices

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

SUMMARY

The research study was conducted in Gadag and Haveri districts of Karnataka state with sample size of 60 respondents. Study revealed that 40.00 per cent of respondents of KVK Hulakoti belonged to medium knowledge level category with respect to mango cultivation practices, where as 46.67 per cent of respondents of KVK Hanumanamatti were belonged to low knowledge level category. The respondents of KVK, Hulakoti had significantly higher knowledge level about mango cultivation practices in comparison to those of KVK, Hanumanamatti. Higher per cent of the mango cultivation respondents had knowledge about the practices like variety (80.00% and 76.66%) , materials used for pit filling (70.00% and 56.66%), pit size (60.00% and 60.00%), spacing (66.66% and 50.00%), soil type (63.33% and 50.00%), irrigation (60.00% and 50.00%) in case of Hulakoti and Hanumanamatti, respectively. Nearly 50.00 per cent and above of the respondents of Hulakoti had knowledge of the practices like intercropping, fertilizer and pest control, while in case of KVK Hanumanamatti 40 .00 per cent of the respondents were having knowledge of practices like intercropping and fertilizer application. Only 20.00 per cent of respondents of Hulakoti and 16.66 per cent of respondents of Hanumanamatti had the knowledge about growth regulator.

Key Words : Variety, Intercropping, Fertilizer, Pest control, Pit size, Growth regulator

Indian agriculture has started to move from static to scientific agriculture, this is due to rapid development in agricultural technology and the development in this area is increasing at increasing rate. This constant change in agricultural technology sometime puts extension personal and farmers in to confusion because of its complicated nature of technology. The fast changing technology calls for acquisition of skills on the part of farmers and extension workers for efficient exploitation.

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.

This is important and crucial factor in bridging the gap between creation of innovation at research station and its appropriate adoption by farmers. To fill this gap extension personnel and the farmers are to be kept at least with the dynamic agriculture, hence, training of extension personnel and the farmers is of outmost importance.

Training can reduce the gap between the actual performance and what is needed. It does so by changing the behaviour of individuals by giving them whatever additional specific item of knowledge, skill or attitude they need to perform up to that standard.

The Krishi Vigyan Kendra (Farm Science Centre) is an

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innovative science based institution which undertakes vocational training programmes to 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 and 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 mango cultivation practices, as this is one of the important and more number of training programmes 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 mango cultivation practices.

MATERIAL 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 mango cultivation practices, was obtained from the respective KVKs. Thirty respondents from each KVK were selected randomly for the study, thus constituting the total sample size of 60 respondents. In the light of the objectives set for the study, the variables *viz.*, knowledge on mango cultivation 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 20 improved mango cultivation practices were selected. 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 respondent for mango cultivation practices was 20 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.

RESULTS AND DISCUSSION

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

Knowledge level of the respondents about mango cultivation practices :

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 medium knowledge level category with respect to mango cultivation practices, where as 46.67 per cent of respondents of KVK Hanumanamatti were belonged to low knowledge level category.

Table 1: Knowledge index of the respondents on mango cultivation practices (n=60)

Category	KVK Hulkoti Mango cultivation (n$_2$=30)		KVK Hanumanamatti Mango cultivation n$_2$=30)	
	Knowledge index			
	F	%	F	%
Low	9	30.00	14	46.67
Medium	12	40.00	10	33.33
High	9	30.00	6	20.00
Total	30	100	30	100
Mean	62.66		48.16	

Comparison of knowledge level about mango cultivation practices 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.

It clearly showed that the respondents of KVK, Hulakoti had significantly higher knowledge level about mango cultivation practices 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 comparison of knowledge levels of respondents of the two KVKs had revealed, farmers trained by KVK Hulakoti had better knowledge than those trained by KVK Hanumanamatti in mango cultivation practices areas as noticed from the results of Tables 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.

Table 2 : Comparison of knowledge level of KVK, Hulakoti and Hanumanamatti respondents about Mango cultivation practices (n=60)			
	Mean knowledge score		
Enterprise	KVK Hulakoti	KVK Hanumanamatti	't' value
Mango cultivation	62.66	48.16	3.05**

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

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. The above findings were in accordance with the findings of Mankar (2003), Moulasab (2004), Shashidhar (2004), Sunil Kumar (2004), Venkataramalu (2003) and Venkatashiva

Reddy (2006).

Knowledge level of respondents about individual mango cultivation practices :

It can be observed from Table 3 that, higher per cent of the mango cultivation respondents had knowledge about the practices like variety (80.00% and 76.66%) materials used for pit filling (70.00% and 56.66%), pit size (60.00% and 60.00%), spacing (66.66% and 50.00%), soil type (63.33% and 50.00%), irrigation (60.00% and 50.00%) in case of Hulakoti and Hanumanamatti, respectively. Nearly 50.00 per cent and above of the respondents of Hulakoti had knowledge of the practices like intercropping, fertilizer and pest control, while in case of KVK Hanumanamatti 40 .00 per cent of the respondents were having knowledge of practices like intercropping and fertilizer application. Only 20.00 per cent of respondents of Hulakoti and 16.66 per cent of respondents of Hanumanamatti had the knowledge about growth regulator.

The results regarding mango cultivation was also encouraging in case of KVK Hulakoti as over 60.00 to 80.00 per cent of respondents had knowledge about variety, soil type, spacing, materials used for pit filling and pit size, while in case of KVK Hanumanamatti it was in the range of 50 to70 per cent. The knowledge level about growth regulator, disease control was found less compared to other practices in both the KVKs. The encouraging results might be due to field visits of respondents to well established orchards and also more practical oriented training.

The relatively low knowledge level in Hanumanamatti, KVK might be because the beneficiaries of watershed development programmes only attended the training. Where mango cultivation was a part of the training curriculum in Watershed Development Programme. The similar results were observed by Kubde *et al.* (1997).

Table 3 : Knowledge level of mango respondents with regard to mango cultivation practices of Hulakoti and Hanumanamatti KVK (n=60)					
Sr. No.	Practices	Respondents of KVK Hulakoti (n_1=30)		Respondents of KVK Hanumanamatti (n_2=30)	
		Knowledge		Knowledge	
		F	%	F	%
1.	Variety	24	80.00	23	76.66
2.	Soil type	19	63.33	15	50.00
3.	Spacing	20	66.66	15	50.00
4.	Pit size	18	60.00	8	60.00
5.	Materials used for pit filling	21	70.00	17	56.66
6.	Irrigation	18	60.00	15	50.00
7.	Intercropping	17	56.66	12	40.00
8.	Fertilizer	17	56.66	12	40.00
9.	Pest control	15	50.00	13	43.33
10.	Disease control	14	46.66	11	36.66
11.	Growth regulator	6	20.00	5	16.66

Conclusion :

The results regarding mango cultivation was also encouraging in case of KVK Hulakoti as over 60.00 to 80.00 per cent of respondents had knowledge about variety, soil type, spacing, materials used for pit filling and pit size, while in case of KVK Hanumanamatti it was in the range of 50 to 70 per cent. The knowledge level about growth regulator, disease control was found less compared to other practices in both the KVKs. The practices like growth regulator, disease control is to be reconsider while giving the future training programmes and also while developing the course content.

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