Impact analysis of mango production training programme of Krishi Vigyan Kendra of Chhatisgarh

R.N. SHARMA, P.R. SINGH AND O.K. TIWARI

ABSTRACT

The Krishi Vigyan Kendra of districts of Chhattisgrah state were selected for the study purpose because these KVK are the oldest and imparting training related to the mango cultivation practices among the mango growers. The major objective of the present study was to- find out the technical knowledge, skill and adoption level of mango cultivation practices. A total number of 40, out of 96 trainees respondents related to mango production were selected through the random sampling techniques. The selected trainee's respondents were personally interviewed through the pre-tested interview schedule. The results of the study showed that, awareness of mango varieties was high but the knowledge level about insect-pest control was very less among the trainees respondents. In the skill and adoption level, the trainee respondents, adopted highly the fertilizer utilization pattern with the recommended dose during plantation in comparison to other activities. The present study indicated that significant level between socio- economic status and various mango cultivation practices was different by one per cent and five per cent level of significance.

See end of the article for authors' affiliations

Correspondence to :
P.R. SINGH
Department of Rural Technology, Guru Ghasidas University, BILASPUR (C.G.) INDIA

Sharma, R.N., Singh, P.R. and Tiwari, O.K. (2011). Impact analysis of mango production training programme of Krishi Vigyan Kendra of Chhatisgarh. *Agric. Update*, **6**(1): 88-91.

Key words : Impact analysis, Mango production, Training programme, K.V.K.

Received: October, 2010; Accepted : December, 2010

INTRODUCTION

India has been primarily an agriculture based economy with an enterprising farming community. The diverse agri-climatic conditions it enabled the production of wide array of horticultural crops (Shikhamany and Murti, 2006). The Indian topography and agro-climates are well suited for growing fruit crop to achieve sustainability of small holding, increase employment to improve environment, provide enormous export potential and above all achieve nutritional security (Ghose, 1997). India has accelerated in total annual production of horticultural crop touching over 149 million' tones. Today India has emerged as the second largest producer of the fruits *i.e.* 46 million tones contributing nearly 10 per cent of the world production (Phuse *et al.,* 2007).

India is the second largest producer of fruits after China, (Subramanyam, 1984). Mango is the most popular fruit among million of people in the world particularly in India, where it is rightly designated as "King of fruits". To be more specific Alphonso is the most popular variety in the world and commercial variety because of its certain characteristics. The demand for Alphonso is increasing day by day but its productivity remains stagnant and poor around 2.5 to 3.0 tonn/ha.

Mango fruit covering about 35 per cent of area and accounting of 22 per cent total production of total fruits in the country, which is highest in the world with India's share of about 54 per cent. India has the richest collection of mango cultivars. Major mango growing States are Uttar Pradesh, Bihar, Andhra Pradesh, Orissa, West Bengal, Maharashtra, Gujarat, Karnataka, Kerala and Tamil Nadu. The main varieties of mango grown in the country are Alphanso, Dashehari, Langra, Fajli, Chausa, Totapuri, Neelum etc.

The front line extension system of the ICAR basically plays an institutional extension role, a supportive role and a catalistic role to accelerate the process of transfer of technology. The Krishi Vigyan Kendra has proved to be an innovative vocational training institution, and in fact a landmark for promoting technical literacy among the farming community. Singh and Gill (1980) indicated that there is significant improvement in knowledge and skill performance among the farmers, who got training from KVK. Bilaspur and Durgs districts of Chhattisgarh state which are the

leading districts in mango production. Krishi Vigyan Kendra of the both the districts were imparting training programme related to the mango production techniques since its inception. Therefore, an attempt has been made to conduct the study on the impact of the KV.K. training programme with special emphasis on mango production with the following specific objectives: to study the technical knowledge of the farmers about mango production technology, to measure the skill level of participating farmers in respect to mango production farming practices and to find out the level of adoption of fruits plantation practices in the research areas.

METHODOLOGY

Krishi Vigyan Kendras are playing a vital role in transfer of improved agricultural technologies to the ultimate users. Therefore, it is important to consider all the four functioning KVKs in Chhattisgarh state for the research purpose. Out of four operating KVKs in Chhattisgarh state, two KVKs namely, KVK, Bilaspur and KVK, Durg were selected purposively, because these are the oldest KVKs of the state. The total number of mango growers trainees was 96. For the study purpose, list of all mango grower trainees farmer was prepared with the help of KVKs personnel. A total number of 40, out of 96 trainees respondents related to mango production were selected through the random sampling techniques.

For the study purpose, different communication media were use for collecting information and extent of adoption of recommended cultivation practices were taken into consideration. Based on the statement of problems and objectives selected for the study, the selection of various concepts and variables was considered. The data were collected by personal interview method from the sample respondent. The data were checked for completeness, classified, tabulated and analyzed with the help of different statistical tools.

RESULTS AND DISCUSSION

Data presented in Table 1 represent the level of technical knowledge of the farmers about mango production technology. The level of technical knowledge of farmers was found to be highest (64.45 per cent) in the awareness of varieties of mango followed by 63.40, 59.23, 54.31, 53.51 and 51.61 per cent in fertilizers used, preparation of land, seed propagation technique and time of transplanting, insect-pests and disease control of mango and irrigation method, respectively. So far as technical knowledge regarding production technology is concerned, the highest mean score was observed for irrigation methods required (6.70) and the least in case of preparation of land (2.36). The value of standard deviation was observed to be highest in case of irrigation methods required (3.97) followed by varieties of mango (2.73), insect pest and disease of mango (2.41), seed propagation techniques and time of transplanting (1.91), fertilizer used (1.56) and the least in case of preparation of land (1.07). From the above, results it may be inferred that the farmers in this area for horticultural crops concentrated with irrigation methods and least bothered about preparation

Table 1: Level of technical knowledge of the farmers about mango production technology (n=40)

Sr. No.	Mango production technology	Score assigned	Mean	Per cent	S.D.
1.	Preparation of land	4	2.36	59.23	1.07
2.	Varieties of mango	7	4.51	64.45	2.73
3.	Seed propagation technique and time of transplanting	5	2.71	54.31	2.91
4.	Irrigation methods required	13	6.70	51.61	3.97
5.	Fertilizer used	05	3.71	63.40	1.56
6..	Insect pest and diseases for control of mango	08	4.28	53.51	2.41

Table 2: Level of technological skill proficiency of mango growers (n =40)

Sr. No.	Mango production technology	Score assigned	Mean	Per cent	S.D.
1.	Preparation of land	4	1.94	48.57	1.01
2.	Varieties of mango	7	3.94	56.32	1.96
3.	Seed propagation technique and time of transplanting	5	2.37	47.72	1.42
4.	Irrigation methods required	13	5.34	41.09	3.19
5.	Fertilizer used	5	3.05	61.14	1.83
6.	Insect pest and diseases for control of mango	8	3.82	41.07	2.03

Table 3: Level of adoption of mango production technology (n= 40)

Sr. No.	Mango production technology	Score assigned	Mean	Per cent	S.D.
1.	Preparation of land	4	1.64	41.00	1.01
2.	Varieties of mango	7	3.48	49.79	1.86
3.	Seed propagation technique and time of transplanting	5	2.06	41.14	1.29
4.	Irrigation methods required	13	4.42	34.06	3.79
5.	Fertilizer used	5	2.91	58.28	1.08
6.	Insect pest and diseases for control of mango	8	2.82	35.35	1.49

Table 4 : Correlation between socio-economic status and adoption scores of mango production technology of the respondents (n=40)

Statistics	Preparation of land	Varieties of mango	Seed propogation techniques and time of transplanting	Irrigation requirement	Fertilizer used	Plant protection measurers
'r'	0.339*	0.298**	0.486**	0.248NS	0.379**	0.378**
S.E.	0.146	0.126	0.119	0.131	0.134	0.144
't'	2.312	2.23	3.998	1.531	2.76	2.53

NS=Non-significant

of land.

Tables 2 indicates the skill level of mango producers. The level of skill of farmers was found to be the highest (61.14 per cent) in case of fertilizers used followed by 56.32, 48.57, 47.72, 41.09 and 41.07 per cent in, varieties of mango, preparation of land, seed production technique, time of transplanting, irrigation methods required and insect pest and disease of mango, respectively. The mean score of mango producers indicated that its value was highest in case of irrigation methods required (5.34) and least mean score value (1.94) remained in case of preparation of land. The value of standard deviation was observed to be highest in case of irrigation method requirement (3.19) followed by varieties of mango (1.96), insect pest and diseases of mango (2.03), fertilizer used (1.83), seed production techniques and time of transplanting (1.42) and the least in case of preparation of land (1.01). From the above facts, this may be inferred that the farmers did not adopt proper irrigation methods and were less aware of insect pests and disease control measures and varieties of mango. In the seed production techniques and transplanting, preparation of land and fertilizer used must be paid special attention to enhance the skill of mango production.

Table 3 indicates the adoption of farmers which was found to be highest (58.28 per cent) for fertilizer used followed by 49.79, 41.14, 41.00, 35.35, 34.06 per cent in case of varieties of mango, seed production techniques and time of transplanting, preparation of land and insect pest and disease of mango, irrigation method required, respectively. The highest mean score was observed in case of irrigation methods requirement (4.42) and the least for preparation of land (1.64). The study also analyzed the standard deviation against adoption scores obtained in each package of practices to find out the individual variations. The value of standard deviation was observed to be highest in case of irrigation methods required (3.79) followed by varieties of mango (1.86), insect pest and disease of mango (1.49) seed propagation technique and time of transplanting (1.29), fertilizer used (1.08) and the least in case of preparation of land (1.01). This may however, be noted carefully that preparation of land and fertilizer used, did not get proper attention. The farmers engaged in horticultural crop usually take less interest in preparation of land, superior varieties of mango which may be marked easing and also have keeping quality. Moreover, the farmers do not use the recommended doses of fertilizers and micro nutrients in horticultural crops.

It is evident from Table 4 that the correlation between the socio-economic status and adoption scores of practice of preparation of land, varieties, seed propagation techniques, time of transplanting, fertilizer used and plant protection measures pertaining to mango crop was observed to be 0.339*, 0.298**, 0.486**, 0.379** and 0.378**, respectively. So far as irrigation methods are concerned the respondents kept themselves isolated from this practice as the non-significant results were observed in this case.

In case of mango, the association between the socio-economic status and preparation of land remained significant at 5 per cent level of significance, so far as varieties of mango, seed propagation's techniques and time

of transplanting, fertilizers use, and plant protection measures are concerned, their association with socio-economic status remained significant at 1 per cent level of significance. However, the mango crop suffered from the inadequacy and shortage of irrigation methods requirement and facilities. In horticultural crops, its seems to be an usual practice that the farmers engaged in these crops are less attentive towards the irrigation facilities.

Conclusion:

The findings of this study indicate that awareness of mango verities were high but the knowledge about insect-pest control was very less among the trainee's, respondents. In the skill and adoption level the trainee respondents highly adopted the fertilizer utilization pattern with the recommended dose during plantation. The present study also shows that significant relationship between socio-economic status and different mango cultivation practices was with the different level of significance. So, the overall perception about Krishi Vigyan Kendra training programme related to the mango production is needed to take specific attention on production related to the aspects of maximizing the crop yield.

Authors' affiliations:
R.N. SHARMA, Krishi Vigyan Kendra, Janjgir, CHAMPA (C.G.) INDIA
O.K. TIWARI, A.S. College, Lakhaoti, BULANDSHAHR (U.P.) INDIA

REFERENCES

Ghose, S.P. (1997). Fifty years of Independence: Research achivement in horticulture. *Indian J. Hort.*, **42** (2): 5-9.

Phuse, A.P., Vitonde A.K. and Thipse, C.D. (2007). Adoption of recommended mandarin orange production practices. *Indian Res. J. Extn. Edu.*, **7** (2&3) : 98-100.

Shikhamany, S.D. and Murti, G.S.R. (2006). New steps to enhance productivity. *The Hindu Survey of Indian Agricultural,* 151-157.

Singh, N.P. and Gill, S.S. (1980). Training needs of farmers in selected agricultural practices and skills in context of KVK programme, H.P.AU. Palampur, Paper presented at 3rd National Workshop on KV.K. at Pondicherry, Aug. 19-22,1980.

Subrahmanyam, K.V. (1984). Growth of horticulture crops in India: constraints and opportunities. *Agric. Situ. India*, **39**(5) : 306.

****
******