INTEGRATED HORTICULTURAL DEVELOPMENT PROGRAMME : AN IMPACT ANALYSIS

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ABSTRACT

The study was conducted in Junagadh district of Gujarat State. Total 128 beneficiary farmers (BFs) and 128 non-beneficiary farmers (NBFs) were selected as respondents. The level of knowledge and extent of adoption of respondents, were measured using the developed standardized scales. Majority of the BFs (70.31 per cent) and NBFs (68.75 per cent) had medium level of knowledge about Improved Mango Production Technology (IMPT) with mean knowledge score of 28.51 and 19.23, respectively. The practices like varieties, chemical fertilizers, planting distance, irrigation, disease control, tillage, organic manure, insect-pest control, use of hormones were adopted by more than 60.00 per cent of BFs, whereas in case of NBFs, the adoption of chemical fertilizers and variety as practices of IMPT was 65.00 per cent and 62.50 per cent, respectively. The adoption index of BFs was found significantly higher than that of NBFs. Majority (71.10 per cent) of the BFs had favourable attitude towards IHDP with 86.20 mean attitude score, whereas 64.84 per cent of the NBFs had favourable attitude towards IHDP with 56.20 mean attitude score.

INTRODUCTION

The Government of Gujarat had launched a programme named "Integrated Horticultural Development Programme (IHDP)" in 8th five year plan. The main theme behind the programme was to increase the area and production of horticultural crops.   Since the programme was launched in 8th five year plan, it becomes essential to study its impact after a lapse of certain period. The impact of Integrated Horticultural Development Programme can be reflected in terms of the level of knowledge and extent of adoption of mango production technology and attitude of beneficiaries towards Integrated Horticultural Development Programme. Therefore, it was felt worthwhile to study the "Impact of Integrated Horticultural Development Programme" with following specific objectives:

METHODOLOGY

The study was conducted in Junagadh district of Gujarat State. Total 128 beneficiary farmers (BFs) were selected purposively and proportionately on the basis of total number of beneficiaries in 22 villages of five selected talukas viz., Visavadar, Junagadh, Mendarda, Malia hatina and Una. Further, the same number of non-beneficiary farmers (NBFs) were also selected randomly from the respective villages. In order to measure the level of knowledge and extent of adoption of respondents, the standardized scales developed for the purpose were used. The selected independent variables were measured either with the help of developed scale or by developing schedules and indices. The data were collected by personal interview either at home or at farm. The data so collected were coded, classified, tabulated and analyzed in

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order to make the findings meaningful.

RESULTS AND DISCUSSION

1 Level of Knowledge of BFs and NBFs about Improved Mango Production Technology (IMPT)

It is evident from the result presented in Table-1 that 70.31 per cent of BFs had medium level of knowledge, whereas 15.63 per cent and 14.06 per cent had high and low level of knowledge about IMPT, respectively. The observed score ranged from 16 to 35 with a mean score of 28.51. In case of NBFs, 68.75 per cent had medium level of knowledge, whereas 18.75 per cent and 12.50 per cent had high and low level of knowledge about IMPT, respectively. The observed score ranged from 12 to 30 with a mean score of 19.23. The comparison of mean knowledge score of BFs and NBFs indicated that BFs had higher knowledge of IMPT as compared to NBFs (Z= 17.162**). This might be due to the good social participation, significant extension participation and mass media exposure, progressive nature and frequent guidance provided by experts might have helped BFs in increasing their knowledge about IMPT. This finding was in line with those of Rakholia (1996) and Lakhera and Sharma (2003).

Table-1: Level of knowledge of BFs and NBFs about IMPT   n=256

Category of farmer	Level of knowledge	No.	Per cent	Observed score	Mean score	S.D.	C.V. %
BFs (n=128)	Low (< 24.14)	18	14.06	16.00 to 35.00	28.51	4.37	15.33
	Medium (24.14 to 32.88)	90	70.31				
	High (> 32.88)	20	15.63				
NBFs (n=128)	Low (< 14.96)	24	18.75	12.00 to 30.00	19.23	4.27	22.20
	Medium (24.96 to 23.50)	88	68.75				
	High (> 23.50)	16	12.50				
Mean difference					9.28		

"z" value = 17.162**   ** = Significant at 1.00 per cent

NB: Expected score for both the categories (BFs and NBFs) ranged between 0 to 35

2 Extent of adoption of BFs And NBFs about Improved Mango Production Technology (IMPT)

For the measurement of adoption, the data were collected and analyzed in two parts:

2. 1 Practice wise extent of adoption of BFs and NBFs about improved mango production technology (IMPT)

To assess the practice wise extent of adoption of BFs and NBFs about IMPT, ten improved practices scrutinized by the experts in the field were considered. As it is evident from the Table: 2, overall mean percentage of 10 practices was 81.10 per cent in case of BFs and 44.41 per cent in case of NBFs. The calculated "t" value was found significant at 0.05 level of probability indicating thereby that the mean adoption index of IMPT by

BFs was found significantly higher than NBFs. It can be summarized that the practices viz; variety, chemical fertilizers and planting distance were highly adopted by BFs. While practices viz; insect-pest control, disease control and use of hormones occupied almost last position in adoption. It is worth to note that in case of both the categories of respondents the plant protection measures were stood almost least adopted even though it is important practice. This may be due to the fact that the plant protection measures in mango orchard are difficult.

Table-2: Practice wise adoption of BFs and NBFs about IMPT n=256

Sr. No.	Name of practice	Possible score	Category of farmer					
			BFs n=128			NBFs n=128		
			Mean	Per cent	Rank	Mean	Per cent	Rank
1	Tillage	12	10.00	83.33	VI	6.00	50.00	IV
2	Variety	2	2.00	100.0	I	1.25	62.50	II
3	Planting distance	7	6.05	86.43	III	3.72	53.14	III
4	Organic manure	11	9.00	81.82	VII	5.25	47.73	V
5	Chemical fertilizers	12	10.50	87.50	II	7.80	65.00	I
6	Irrigation	16	13.55	84.68	IV	6.05	37.81	VIII
7	Insect-pest control	14	10.10	72.14	VIII	6.06	43.21	VII
8	Disease control	15	12.50	83.34	V	4.02	28.00	X
9	Inter cropping	3	1.70	56.66	X	1.41	47.00	VI
10	Use of hormones	8	5.70	71.25	IX	2.68	33.50	IX
	Total	100	81.10			44.41		

"t" value = 2.499** Table value of 't' at 0.05 level is 2.306

2.2 Extent of adoption of BFs and NBFs about improved mango production technology (IMPT)

The adoption quotient developed by Chttopadhyay (1974) was used with slight modifications. Adoption index for each respondent was calculated on the basis of maximum score obtained by him. The BFs and NBFs were classified in to three categories on the basis of mean and standard deviation as low, medium and high.

It is obvious from the data presented in the Table: 3 that the observed adoption index in case of BFs ranged from 45.00 to 96.00 per cent with mean adoption index of 81.10 per cent, whereas in case of NBFs, it ranged from 23.00 to 72.00 per cent with mean adoption index of 44.41 per cent. The Z value (30.358**) being significant at 1.00 per cent level led to conclude that BFs had adopted more IMPT as compared to NBFs. This might be due to the fact that BFs had higher level of knowledge, more social participation and extension participation and higher exposure to mass media, which led them towards higher adoption of IMPT. This finding was in conformity with those of Karkar (1998) and Lakhera and Sharma (2003).

Table-3: Extent of adoption of BFs and NBFs about IMPT   n=258

Category of farmer	Extent of adoption	No.	Per cent	Observed index	Mean index	S.D.	C.V. %
BFs (n=128)	Low (< 71.43)	18	14.06	45.00 to 96.00	81.10	9.67	11.93
	Medium (71.43 to 90.77)	87	67.97				
	High (> 90.77)	23	17.97				
NBFs (n=128)	Low (< 34.78)	30	23.45	23.00 to 72.00	44.41	9.63	21.68
	Medium (34.78 to 54.04)	82	64.05				
	High (> 54.04)	16	12.50				
Mean difference					36.67		

"z" value = 30.358**   ** = Significant at 1.00 per cent

NB: Expected score for both the categories (BFs and NBFs) ranged between 0 to 100

3 Level of attitude of BFs And NBFs towards Integrated Horticultural Development Programme (IHDP)

The standardized attitude scale was developed. It was used to measure the level of attitude of the respondent farmers towards IHDP. If comparison is to be made between BFs and NBFs for their attitude towards IHDP, the perusal of data presented in Table: 4 make it clear that mean attitude score in case of BFs was 86.20 which was significantly higher than that of NBFs i.e 56.20 with "z" value = 25.479**. It leads to conclude that BFs had highly favourable attitude towards IHDP as compared to NBFs. This might be due to the fact that all the BFs were benefited under the IHDP regarding the IMPT and also other related activities without paying any charges, which might have played major role in building up favourable attitude among BFs towards IHDP. This finding was supported by the finding of Rakholia (1996).

Table-4: Level of attitude of BFs and NBFs towards IHDP   n=258

Category of farmer	Level of attitude	No.	Per cent	Observed score	Mean score	S.D.	C.V. %
BFs (n=128)	Less favourable(< 71.10)	11	8.59	65 to 110	86.20	9.10	10.56
	Favourable (71.10 to 95.30)	94	73.44				
	Highly favourable (> 95.30)	23	17.97				
NBFs (n=128)	Less favourable (< 46.48)	25	19.53	40 to 82	56.20	9.72	17.30
	Favourable (46.48 to 65.92)	83	64.84				
	Highly favourable (> 65.92)	20	15.63				
Mean difference					30.00		

"z" value = 25.479**   ** = Significant at 1.00 per cent

NB: Expected score for both the categories (BFs and NBFs) ranged between 24 to 120

CONCLUSION

It can be concluded that BFs and NBFs differed significantly in case of their knowledge ("t" value = 2.499**) and adoption ("z" value = 30.358**) of IMPT. Further, significant difference ("z" value = 25.479**) was also observed for their attitude towards IHDP. Thus, Integrated Horticultural Development Programme resulted in higher level of knowledge and adoption of IMPT as well as more favourable attitude towards IHDP among the beneficiary farmers.

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> *Character is like a tree and reputation like its shadow. The shadow is that we think of it, the tree is the real thing.*
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> *- Lincoln.*