

IMPACT OF CUMIN CROP FIELD DEMONSTRATIONS ON KNOWLEDGE OF FARMERS

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ABSTRACT

The present study was undertaken in North Gujarat to know the impact of field demonstration (FLD) on cumin crop conducted by Center for research on seed spices, Jadgdan. The Banaskantha, Mehsana, Kachchh, Gandhinagar, Patan and Sabarkatha districts were selected purposively. The demonstrations on cumin crop were conducted in these districts. Total 50 FLD farmers and 50 other (non FLD) farmers were randomly selected from the villages in which FLDs were conducted. The data were collected through interview schedule. Appropriate statistical tools were used for analysis of data. The farmers had overall medium level of knowledge about cumin production technology. There was a significant difference between beneficiary and non beneficiary farmers regarding knowledge of seven package of practices of improved cumin production technology. The 'r' value was positively and significantly associated with knowledge level of improved cumin production technology by the beneficiary and non beneficiary farmers with education.

Keywords : knowledge, field demonstrations, impact

INTRODUCTION

The basic purpose of front line demonstrations is to demonstrate newly released crop production technologies and its management practices on farmer's field under real situation. Looking to the importance of front line demonstration, it was felt imperative that impact of these demonstration must be evaluated on scientific line and some measures should be suggested to make these demonstrations more effective. The results of the study might be of interest to the researches of main spices research station, krushi vigyan Kendra scientists, and all those who are directly or indirectly involved in planning and executing the front line demonstrations. Hence it thought necessary to measure the impact of field demonstrations on cumin crop on the beneficiary farmers with the following specific

OBJECTIVES

- [1] To study the personal attributes of beneficiary and non-beneficiary farmers
- [2] To measure the level of knowledge of beneficiary farmers in comparison with non-beneficiary farmers regarding cumin production technology demonstrated

under front line demonstrations

- [3] To study the practice wise level of knowledge of improved cumin production technology by FLD beneficiary and non-beneficiary farmers
- [4] To find out the association of personal attributes of beneficiary farmers and non beneficiary farmers with their level of knowledge of improved cumin production technology

METHODOLOGY

The present study was undertaken in North Gujarat to know the impact of field demonstrations (FLDs) on cumin crop conducted by center for research on seed spices, Jadgdan. The Banaskantha, Mehsana, Kachchh, Gandhinagar, Patan and Sabarkatha districts were selected purposively. The demonstrations on cumin crop were conducted in these districts. Total 50 FLD farmers and 50 other (non FLD) farmers were randomly selected from the villages in which FLDs were conducted. The data were collected through interview schedule. Appropriate statistical tools were used for analysis of data. The data were tabulated, analyzed and interpreted in light of the objectives.

RESULTS AND DISCUSSION

Personal attributes of respondents

Table 1: Distribution of the respondents according to their the personal attributes

n=100

Sr. No.	Attributes	Classification	Beneficiary farmers (n=50)		Non-beneficiary farmers (n=50)	
			No.	Percent	No.	Percent
1	Age	Young age (below to 35 year)	14	28.00	08	16.00
		Middle age (35 to 50 year)	21	42.00	26	52.00
		Old age (Above 50 year)	15	30.00	16	32.00
2	Education	Illiterate	03	06.00	07	14.00
		Primary education (Up to VII std.	27	54.00	20	40.00
		High School (VIII to X std.) level	11	22.00	05	10.00
		Higher secondary (XI to XII) level	06	12.00	15	30.00
		College level	03	06.00	03	6.00
3	Land holding	Marginal (Up to 1.0 ha.)	16	32.00	22	44.00
		Small (1.01 to 2.0 ha.)	24	48.00	10	20.00
		Medium (2.01 to 4.0 ha.)	08	16.00	07	14.00
		Large (More than 4.0 ha.)	02	04.00	05	10.00
4	Source of information	Low (Up to 6 source)	13	26.00	10	20.00
		Medium (7-13 sources)	24	48.00	35	70.00
		High (Above 13 sources)	13	26.00	05	10.00
5	Extension participation	Low (Up to 10 score)	02	04.00	19	38.00
		Medium (11 to 28 score)	36	72.00	23	46.00
		High (Above 28 score)	12	24.00	08	16.00
6	Economic motivation	Low (Up to 17 score)	08	16.00	14	28.00
		Medium (18 to 24 score)	35	70.00	30	60.00
		High (Above 24 score)	07	14.00	06	12.00
7	Risk percentage	Low (Up to 15 score)	04	08.00	20	40.00
		Medium (16 to 23 score)	35	70.00	25	50.00
		High (Above 23 score)	11	22.00	05	10.00
8	Scientific orientation	Low (Up to 16 score)	06	12.00	14	28.00
		Medium (17 to 24 score)	38	76.00	28	56.00
		High (Above 24 score)	06	12.00	08	16.00

The data depicted in Table 1 show that maximum number of respondents from beneficiary group (42.00 percent) and non-beneficiary group (52.00 percent) were found in middle age group. Nearly one half number of beneficiary farmers(54.00 percent) had primary education, while 40.00 per cent were found in non- beneficiary farmers. Majority (48.00 percent) of the beneficiary farmers were small farmers having 1.01 to 2.00 ha. of cultivable land. Whereas, majority of (44.00 percent) of non-beneficiary farmers were marginal farmers having up to 1.00 ha. of cultivable land. Maximum number of from beneficiary farmers (48.00 percent) and non-beneficiary farmers (70.00 percent) had medium level

utilization of information sources. Maximum numbers of beneficiary farmers (72.00 percent) had medium level of extension participation. Majority of the respondents from beneficiary group (70.00 percent) and non-beneficiary group (60.00 percent) had medium level of economic motivation. Maximum number of respondents from beneficiary group (70.00 percent) and non-beneficiary group (50.00 percent) were having medium level of risk preferences. Maximum number of respondents from beneficiary group (76.00 percent) and non-beneficiary group (56.00 percent) were having medium level of scientific orientation.

Knowledge level of respondents**Table 2: Distribution of the respondents according to their level of knowledge of improved cumin production technology**

n-100

Sr. No.	Category	Beneficiary farmers (n=50)		Non-beneficiary farmers (n=50)	
		No.	Percent	No.	Percent
1	Low (Up to 24 score)	07	14.00	18	36.00
2	Medium (25 to 35 score)	33	66.00	31	62.00
3	High (Above 35 score)	20	40.00	02	04.00

It is clear from Table 2 that nearly equal number of the beneficiary farmers (66.00 %) and non-beneficiary farmers (62.00%) had medium level of knowledge about cumin production technology. On the other hand 40.00 per cent beneficiary and 4.00 per cent non-beneficiary farmers had high level of knowledge about cumin production technology.

Remaining 14.00 per cent beneficiary and 36.00 per cent non-beneficiary farmers had low level of knowledge about cumin production technology

Table 3: Practice-wise knowledge of improved cumin production technology by FLD beneficiary and non-beneficiary farmers

n=100

Sr. No.	Name of Practice	Mean Score		Standard deviation of Mean	Calculated 'Z' value
		Beneficiary (n=50)	Non-beneficiary (n=50)		
1	Variety	2.60	1.90	0.089	8.868**
2	Seed treatment	3.06	2.32	0.151	3.895**
3	Sowing time	3.71	3.21	0.098	3.866**
4	Fertilizer	5.13	4.96	0.214	4.093**
5	Irrigation	2.87	3.59	0.084	8.623**
6	Weed Control	2.39	2.98	0.152	4.854**
7	Plant protection measures	6.22	4.99	0.204	3.901**
8	Harvesting and storage	2.24	2.26	0.124	0.217 ^{NS}

** significant at 0.01 level

NS: Not significant

Table 3 reveal that there was significant difference in knowledge level of beneficiary and non-beneficiary farmers regarding the practice viz., variety, seed treatment, sowing time, fertilizer, irrigation, plant protection measures and

weed control and plant protection measures. No significant difference was observed between beneficiary and non-beneficiary farmers in respect of harvesting and storage.

Associations of personal attributes of respondents with knowledge level of cumin production technology

Table 4: Associations of personal attributes of respondents with their level of knowledge of improved cumin production technology n=100

Sr. No.	Attributes	Correlation Coefficient ('r' value)	
		Beneficiary farmers (n=50)	Non-beneficiary farmers (n=50)
X ₁	Age	-0.2750**	-0.1134 ^{NS}
X ₂	Education	0.3779**	0.2618*
X ₃	Social Participation	-0.0734 ^{NS}	-0.1355 ^{NS}
X ₄	Land holding	0.1726 ^{NS}	0.0483 ^{NS}
X ₅	Extension participation	0.3379**	-0.2350 ^{NS}
X ₆	Economic motivation	0.3999**	0.0999 ^{NS}
X ₇	Risk preference	0.2687**	0.0775 ^{NS}
X ₈	Scientific orientation	0.4731**	0.1448 ^{NS}

** significant at 0.01 level

* significant at 0.05 level

NS: Not significant

The data presented in Table 4 show that the independent variables viz., education (0.3779), extension participation (0.3379), economic motivation (0.3999), risk preference (0.2687), scientific orientation (0.4731) were positively and significantly associated with knowledge level of improved cumin production technology by the beneficiary farmers at 0.01 level of significance. Age of respondents (-0.2750) was negatively and significantly associated with knowledge level of improved cumin production technology by the beneficiary farmers at 0.01 level of significance. In case of non-beneficiary farmers education (0.2618) was positively and significantly associated with knowledge level of improved cumin production technology. Whereas, the age, social participation, land holding, extension participation, economic motivation, risk preference and scientific orientation were not association with knowledge level of improved cumin production technology.

CONCLUSION

It can be concluded that maximum number of beneficiary and non beneficiary farmers were middle aged, had primary level of education, medium source of information, medium extension participation, medium risk preference and

medium scientific orientation. The farmers had overall medium level of knowledge about cumin production technology. There was a significant difference between beneficiary and non beneficiary farmers regarding knowledge of package of practices of improved cumin production technology viz; variety, seed treatment, sowing time, fertilizer, irrigation, weed control and plant protection measures. The 'r' value was positively and significantly associated with knowledge level of improved cumin production technology by the beneficiary and non beneficiary farmers with education. The 'r' values were not associated with knowledge level of improved cumin production technology by the beneficiary farmers with social participation and land holding. There was a significant association between extension participation, economic motivation, risk preference and scientific orientation of beneficiary farmers and knowledge level of improved cumin production technology.

REFFREENCE

Sandeep Yadav, Prajapati R. R. and Prajapati M. R. (2014). Knowledge and adoption of tomato growers about improved tomato production technology. *Guj. J. Ext. Edu.* 25(2): 172-174

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