KNOWLEDGE LEVEL OF FLD AND NON FLD FARMERS ABOUT CASTOR PRODUCTION TECHNOLOGY

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ABSTRACT

The study was conducted in Banaskantha District because Banaskantha districts ranks first in the state with area under castor cultivation. Three talukas viz., Dantiwada, Vadgam and Dhanera were selected for present investigation because a greater number of FLDs on castor crop were conducted in above three talukas by KVK, Deesa. All the nine villages in which frontline demonstrations on castor crop were conducted by KVK, Deesa were selected. A comprehensive list of FLD farmers was collected from the KVK, Deesa. Total numbers of castor demonstrations were 100. Using proportionate random sampling method, 75 per cents FLD farmers were selected randomly and equal numbers of Non FLD farmers were also selected randomly from same villages. Thus, total 150 respondents were selected for the study. Ex-post facto research design was used for the study. Result revealed that nearly three-fourth (73.33 per cent) of the FLD respondents had medium level of knowledge followed by, 16.00 per cent and 10.67 per cent of them had high and low level of knowledge about castor production technology. In case of Non FLD respondents, nearly two-third (64.00 per cent) of them had medium level of knowledge followed by, 25.33 per cent and 10.67 per cent of them had low and high level of knowledge about castor production technology.

***Keywords** : castor growers, level of knowledge, fld, non-fld, castor production technology*

INTRODUCTION

The castor plant (*Ricinus communis* L.) is a member of the Euphorbiaceae family. Castor is a non-edible oilseed crop used in industry. Among all major castor-growing states in the country, Gujarat ranks first in terms of acreage, production, and productivity. The fundamental issue in boosting agricultural production in the developing countries is the lack of technology transfer from the research system to the client system. If available castor production technology is brought to bear on the production process and programme, the current rate of agricultural production can be doubled. This requires a constant flow of knowledge from scientists to farmers. This is achieved through demonstration, which is an important and acceptable extension strategy for disseminating technology to user farmers (Biradar *et al.,* 2013). With this in mind, the Indian government developed frontline demonstration programme aimed at enhancing crop production (Rai *et al.,* 2020). It has played significant role in increasing the knowledge, adoption and yield of recommended castor production technologies by the castor growers.

OBJECTIVE

To know the knowledge level of FLD and non FLD farmers about castor production technology

METHODOLGY

The study was conducted in Banaskantha District of Gujarat state because Banaskantha districts ranks first in the state with area under castor cultivation. three talukas viz., Dantiwada, Vadgam and Dhanera were selected for present investigation because a greater number of FLDs on castor crop were conducted in above three talukas by KVK, Deesa. All the nine villages in which frontline demonstrations on castor crop were conducted by KVK, Deesa were selected. A comprehensive list of FLD farmers was collected from the KVK, Deesa. Total numbers of castor demonstrations were 100. Using proportionate random sampling method, 75 per cents FLD farmers were selected randomly and equal numbers of Non FLD farmers were also selected randomly from same villages. Thus, total 150 respondents were selected for the study. Ex-post facto research design was used for the study.

RESULTS AND DISCUSSION

Personal profile of the FLD and Non FLD castor growers

Table 1, It could be reported from that Slightly above half (54.67 per cent) of FLD respondents and above two-fifth (45.33 per cent) of Non FLD respondents were in middle

Table 1: Personal profile of the FLD and Non FLD castor growers (n=150)

Sr. No.	Variable	Category	FLD farmers (%) (n=75)	Non FLD farmers (%) (n=75)
1	**Age**	Young age (up to 35 year)	13 (17.33)	15 (20)
		Middle age (36 to 50 year)	41 (54.67)	26 (34.67)
		Old age (above 50 year)	21 (28.00)	34 (45.33)
2	**Education**	Illiterate	00 (00.00)	05 (06.67)
		Functionally literate	05 (06.67)	09 (12.00)
		Primary school	26 (34.67)	35 (46.66)
		Middle school	31 (41.33)	17 (22.67)
		High school	07 (09.33)	06 (08.00)
		Under graduation /Post graduation	06 (08.00)	03 (04.00)
3	**Annual income**	Low (Up to ₹ 50,000)	11 (14.67)	10 (13.33)
		Medium (₹ 50,001₹ to ₹1,00,000)	41 (54.67)	48 (64.00)
		High (Above ₹ 1,00,000)	23 (30.66)	17 (22.67)
4	**Land holding**	Marginal (up to 1.00 ha)	15 (20.00)	20 (26.67)
		Small (1.01 to 2.00 ha)	25 (33.33)	30 (40.00)
		Medium (2.01 to 4.00 ha)	29 (38.67)	22 (29.33)
		Large (above 4.00 ha)	06 (08.00)	03 (04.00)
5	**Social participation**	No participation	15 (20.00)	26 (34.67)
		Membership in one organization	36 (48.00)	28 (37.33)
		Membership in more than one organization	15 (20.00)	11 (14.67)
		Membership with position holding	09 (12.00)	10 (13.33)
6	**Extension participation**	Low participation	12 (16.00)	16 (21.33)
		Medium participation	50 (66.67)	48 (64.00)
		High participation	13 (17.33)	11 (14.67)
7	**Sources of information**	Low	07 (09.33)	16 (21.33)
		Medium	50 (66.67)	47 (62.67)
		High	18 (24.00)	12 (16.00)
8	**Economic motivation**	Low	14 (18.67)	21 (28.00)
		Medium	46 (61.33)	44 (58.67)
		High	15 (20.00)	10 (13.33)

and old age group, respectively. In case of FLD respondents, 41.33 per cent had education level up to middle school whereas two-fifth (46.66 per cent) of Non FLD respondents had education level up to primary school. Majority of respondents in FLD (54.67 per cent) and Non FLD (64.00 per cent) had medium level of annual income. More than two-fifth (38.67 per cent) of FLD respondents possessed medium size of land holding, whereas two-fifth (40.00 per cent) of Non FLD respondents possessed small size of land holding. Nearly half (48.00 per cent) of FLD respondents and nearly two-fifth (37.33 per cent) of Non FLD respondents had membership in one organization. Majority of FLD (66.67 per cent) and Non FLD (64.00 per cent) respondents had medium level of extension participation. Two-third (66.67 per cent) of the FLD respondents and slightly above three-fifth (62.67 per cent) of Non FLD respondents used medium sources of information. Majority of FLD (61.33 per cent) and Non FLD (58.67 per cent) respondents had medium level of economic motivation. Nearly two-third (65.33 per cent) of FLD respondents and two-third (65.33 per cent) of FLD respondents had medium level of risk preference.

Level of Knowledge about castor production technology

It is evident from the Table 2 that majority of FLD respondents (89.33 per cent) had medium to high level of knowledge about castor production technology. While in case of Non FLD respondents, majority (89.33 per cent) of them had medium to low level of knowledge about castor production technology

Table 2: Level of knowledge about castor production technology

Sr. No.	Knowledge level Category	Category			
		FLD farmers n=75		Non-FLD farmers n=75	
		Frequency	Per cent	Frequency	Per cent
1	Low level knowledge ≤ Mean – S.D.	08 (Below 18.62)	10.67	19 (Below 16.11)	25.33
2	Medium level knowledge Mean ± S.D.	55 (18.62 to 25.1)	73.33	48 (16.11 to22.13)	64.00
3	High level Knowledge ≥ Mean + S.D.	12 (Above 25.1)	16.00	08 (Above 22.13)	10.67
Mean		21.86		19.12	
S.D.		3.24		3.01	
'Z' value		5.368**			

As evident from Table 2, 'Z' value (5.368) was found to be highly significant, which indicates that FLD castor growers had significantly higher knowledge regarding castor production technology than Non FLD castor growers. The probable reason for having highly significant difference may be that FLD respondents had better participation in the programme. In depth training was also provided to participating respondents covering full package of practice. The FLD respondents were found having close contact with KVK scientists and were using a greater number of sources of information hence, they had more knowledge about castor production technology.

Association between level of knowledge about castor production technology and personal profile of FLD farmers and Non FLD farmers

It evident from the Table 3 that, in case of FLD respondents, independent variable viz., education, land holding, extension participation and risk orientation had positive and highly significant association with level of knowledge about castor production technology. Social participation, sources of information and economic motivation had positive and significant correlation with the level of knowledge about castor production technologies. While, in case of non FLD respondents, independent variable viz., education, extension participation, economic motivation and risk orientation had positive and significant correlation with the level of knowledge of farmers about castor production technology.

Table 3: Association between level of knowledge about castor production technology and personal profile of FLD farmers and Non FLD farmers (n=150)

Sr. No.	Personal profile	r- Value	
		FLD farmers (n= 75)	Non-FLD farmers (n=75)
X_1	**Age**	-0.0618 NS	-0.1003 NS
X_2	**Education/**	0.3956**	0.2399*
X_3	**Annual income**	0.1934 NS	0.0388 NS
X_4	**Land holding/**	0.3523**	0.2084 NS
X_5	**Social participation**	0.2270*	0.1678 NS
X_6	**Extension participation**	0.3139**	0.2548*
X_7	**Sources of Information**	0.2597*	0.1221 NS
X_8	**Economic Motivation**	0.2395*	0.2908*
X_9	**Risk orientation**	0.2977**	0.2428*

* 5 per cent level of significant r = 0.2272 ** 1 per cent level of significant r = 0.2957
NS = Not significant

It evident from the Table 3 that in case of FLD respondents, out of the nine independent variables, viz., education, land holding, extension participation and risk orientation had positively and highly significantly association with level of knowledge about castor production technology. Social participation, sources of information and economic motivation had positive and significant association with level of knowledge about castor production technology. Annual income had positive but and not-significant correlation with the level of knowledge about castor production technologies. While, in case of Non FLD respondents out of the nine independent variables, education, extension participation, economic motivation and risk orientation had positive and significant association with level of knowledge about castor production technology. Annual income, land holding, social participation and sources of information had positive but not-significant correlation with level of knowledge about castor production technology. The remaining variable age had negative and not-significant correlation with the level of knowledge about castor production technologies in both cases FLD and Non-FLD.

CONCULSION

It can be concluded that FLD castor grower had higher level knowledge about castor production technology because they are younger, more educated, higher annual income, highest level of social participation, extension participation, source of information and economic motivation as compared with Non-FLD Farmers.

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Received : October 2021 : Accepted : December 2021