

Adoption of Groundnut Technology by the Farmers

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INTRODUCTION

Oilseeds in India constitute the principal commercial crop. The bulk of vegetable oil is derived from the nine cultivated oilseeds, such as Groundnut, Mustard, Sesamum, Niger, Rapeseed, Soyabean, Saf-flower and Sun-flower forming the edible group and Castor and Linseed forming non-edible group. It contributes 67.00 per cent of the total production of major oilseeds in our country.

Dry edible seeds are used for human consumption in dry form. The seed contains more than 20 per cent protein, so it is regarded as a poor man's Almond. The edible oil cakes provide concentrated food for the cattle, the non-edible oil cakes are also used as manures which contain 7.5 per cent N, 1.5 per cent P₂O₅ and 1.2 per cent K₂O. As a substitute for edible oil, it can play a major role in the saving of foreign exchange being drained for the purchase of edible oil, if its productivity is improved. Keeping this fact in view, the present study was planned to study the extent of adoption of groundnut technology by the groundnut growers.

METHODOLOGY

The present study was conducted in the Karpara project area of Parbhani district of Maharashtra state. Three villages viz., Niwali, Warna and Bori were selected randomly for the purpose of the study.

Based on the proportionate random sampling technique, 60 groundnut growers from each of the village were selected randomly. Thus, sample size comprised of 180 respondents. The selected farmers were interviewed personally with the help of a specially structured schedule. The statistical tests like simple correlation, multiple regression and path analysis were used to analyse the data.

RESULTS AND DISCUSSION

The results regarding the adoption level of respondents are presented in Table 1.

Age and adoption :

It is evident from the data presented in Table 1 that, majority of the farmers with young age group (26.40 per cent), middle age group (34.40 per cent) and old age group (12.20 per cent) had high, medium and low adoption level, respectively.

Education and adoption:

The data presented in Table 1 reveal that, majority of the respondents with illiterate (4.40 per cent), can read only (4.90 per cent) and can read and write (6.10 per cent), respectively had low level of adoption, whereas the respondents with primary school (19.90 per cent), middle school (27.70 per cent), high school (8.30 per cent) and graduate (2.70 per cent), respectively had high level of adoption.

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Table 1. Distribution of farmers according to their adoption level.

(N = 180)

Sr.No.	Variables	Extent of adoption		
		Low	Medium	High
1	2	3	4	5
1.	Age :			
	Young	2(1.10)	6 (3.30)	48 (26.40)
	Middle	17 (9.40)	62 (34.40)	8 (4.40)
	Old	22 (12.20)	10 (5.50)	5 (2.70)
2.	Education :			
	Illiterate	8 (4.40)	2 (1.10)	2 (1.10)
	Can read only	9 (4.90)	5 (2.70)	3 (1.60)
	Can read and write	11 (6.10)	6 (3.30)	4 (2.20)
	Primary school	4 (2.20)	7 (3.80)	36 (19.90)
	Middle school	2 (1.10)	4 (2.20)	50 (27.70)
	High school	2 (1.10)	2 (1.10)	15 (8.30)
	Graduate	1 (0.50)	2 (1.10)	5 (2.70)
3.	Type of family			
	Single (nuclear)	7 (3.80)	13 (7.20)	86 (47.70)
	Joint	50 (27.70)	14 (7.70)	10 (5.50)
4.	Social participation :			
	Member of one organization	23 (12.70)	88 (48.80)	58 (32.10)
	Member of more than one organization	2 (1.10)	2 (1.10)	3 (1.60)
	Public leader	1 (0.55)	1 (0.55)	2 (1.10)
5.	Progressive attributes :			
	Seed producer	25 (13.80)	6 (3.30)	5 (2.70)
	Progressive farmers	4 (2.20)	37 (20.50)	6 (3.30)
	Members of the development organization	6 (3.30)	9 (4.90)	82 (45.50)
6.	Annual income :			
	Rs. 3501 to 4800	26 (14.40)	4 (2.20)	2 (1.10)
	Rs. 4801 and above	17 (9.40)	34 (18.80)	97 (53.80)

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1	2	3	4	5
7.	Land holding :			
	Less than 1 ha.	21 (11.80)	5 (2.70)	2 (1.10)
	1.1 to 5.00 ha.	7 (3.80)	33 (18.30)	4 (2.20)
	5.1 to 10.0 ha.	13 (7.20)	66 (36.60)	9 (4.90)
	10.1 to 15.00 ha.	2 (1.10)	3 (1.60)	8 (4.40)
	15.1 to 20.0 ha.	1 (0.55)	1 (0.55)	3 (1.60)
	20.1 ha. and above	0 (0.00)	0 (0.00)	2 (1.10)
8.	Bullock possession :			
	One pair	62 (34.40)	5 (2.70)	3 (1.60)
	Two pairs	10 (5.50)	59 (32.90)	14 (9.40)
	Three pairs	5 (2.70)	6 (3.30)	16 (8.80)
9.	Socio-economic status:			
	Lower	22 (12.20)	9 (4.90)	7 (3.80)
	Lower middle	9 (4.90)	17 (9.40)	7 (3.80)
	Middle	6 (3.30)	24 (13.30)	7 (3.80)
	Upper middle	4 (2.20)	8 (4.40)	6 (3.30)
	Higher	2 (1.10)	8 (4.40)	44 (24.40)
10.	Occupation :			
	Business + Agriculture	22 (12.20)	8 (4.40)	10 (5.50)
	Agriculture + Business	15 (8.30)	19 (10.50)	108 (59.90)
11.	Achievement motivation :			
	Low	37 (20.50)	2 (1.10)	2 (1.10)
	Medium	10 (5.50)	52 (28.80)	17 (3.40)
	High	2 (1.10)	2 (1.10)	56 (31.00)
12.	Risk orientation :			
	Low	19 (10.50)	5 (2.70)	4 (2.20)
	Medium	10 (5.50)	54 (29.90)	28 (15.50)
	High	2 (1.10)	3 (1.60)	55 (30.50)
13.	Economic Motivation :			
	Low	27 (9.40)	6 (3.30)	4 (2.20)
	Medium	10 (5.50)	53 (29.40)	26 (19.40)
	High	3 (1.60)	5 (2.70)	56 (31.00)

1	2	3	4	5
14.	Innovation proneness :			
	Low	16 (8.80)	8 (4.40)	5 (2.70)
	Medium	17 (9.40)	52 (28.80)	18 (9.90)
	High	3 (1.60)	4 (2.20)	57 (31.60)
15.	Aspiration level :			
	Low	22 (12.20)	5 (2.70)	4 (2.20)
	Medium	16 (8.80)	51 (28.30)	22 (11.20)
	High	3 (1.60)	4 (2.20)	53 (29.40)
16.	Market orientation :			
	Low	19 (10.50)	8 (4.40)	4 (2.20)
	Medium	9 (4.90)	55 (30.50)	18 (9.90)
	High	2 (1.10)	4 (2.20)	61 (33.80)
17.	Knowledge level :			
	Low	41 (22.70)	6 (3.30)	4 (2.20)
	Medium	8 (4.40)	43 (23.80)	16 (8.80)
	High	3 (1.60)	7 (3.80)	52 (28.80)
18.	Attitude :			
	Favourable	5 (2.70)	10 (5.50)	78 (43.20)
	Neutral	1 (0.55)	2 (1.10)	1 (0.55)
	Unfavourable	76 (42.10)	4 (2.20)	3 (1.60)
19.	Extension contact :			
	Low	22 (12.20)	9 (4.90)	6 (3.30)
	Medium	18 (9.90)	49 (27.10)	19 (10.50)
	High	2 (1.10)	4 (2.20)	51 (28.30)
20.	Source of information :			
	Low	27 (14.90)	8 (4.40)	4 (2.20)
	Medium	16 (3.30)	49 (27.10)	19 (10.50)
	High	2 (1.10)	4 (2.20)	51 (28.30)

(Figures in parentheses indicate the percentage)

Type of family and adoption:

Majority of the respondents with nuclear type of family (47.70 per cent) and joint type of family (27.70 per cent) had high and low level of adoption, respectively.

Social participation and adoption :

It was found that, majority of the respondents with member of one organization (48.80 per cent), member of more than one organization (1.60 per cent) and public leader (1.10 per cent) had medium and high level of adoption, respectively.

Progressive attributes and adoption :

It was evident that, majority of the respondents with seed producer (13.80 per cent), progressive farmers (20.50 per cent) and member of the development organization (45.50 per cent) had low, medium and high level of adoption, respectively.

Annual income and adoption :

It was noticed that, majority of the respondents with income in the range of Rs. 3501 to 4800 (14.40 per cent) and income from Rs. 4801 and above (53.80 per cent) had low and high level of adoption respectively.

Land holding and adoption :

It was observed that, majority of the respondents with land size less than 1 ha. (11.80 per cent) had low level of adoption whereas, respondents with 1.1 to 5.0 ha. (18.30 per cent) and 5.1 to 10.0 ha. (36.60 per cent) were having medium level of adoption, respectively and most of the respondents with 10.1 to 15.00 ha. (4.40 per cent), 15.1 to 20.00 ha. (1.60 per cent) and 20.1 ha. and above (1.10 per cent) had high level of adoption, respectively.

Bullock possession and adoption :

It was noticed that, majority of the respondents with one pair of bullock (34.40 per cent), two pairs (32.90 per cent) and three pairs (8.80 per cent) had low, medium and high level of adoption, respectively.

Socio-economic status and adoption :

It was evident that, majority of the respondents with lower socio-economic status (12.20 per cent) had low level of adoption, whereas majority of the farmers with lower middle (9.40 per cent), middle (13.30 per cent) and upper middle socio-economic status (4.40 per cent) were having medium level of adoption, respectively and respondents with higher socio-economic status (24.40 per cent) had high level of adoption.

Occupation and adoption :

It was observed that, majority of the respondents with business + agriculture (12.20 per cent) and agriculture + business (59.90 per cent) had low and high level of adoption, respectively.

Achievement motivation and adoption :

It was found that, majority of the respondents with low achievement motivation (20.50 per cent), medium achievement motivation (28.80 per cent) and high achievement motivation (31.00 per cent) had low, medium and high level of adoption, respectively.

Risk orientation and adoption :

It was noticed that, majority of the respondents with low risk orientation (10.50 per cent), medium risk orientation (29.90 per cent) and high risk orientation (30.50 per cent) had low, medium and high level of adoption, respectively.

Economic motivation and adoption :

It may be seen that, majority of the respondents with low economic motivation (9.40 per cent), medium economic motivation (29.40 per cent) and high economic motivation (31.00 per cent) had low, medium and high level of adoption, respectively.

Innovation proneness and adoption :

It was evident that, majority of the respondents with low innovation proneness (8.80 per cent), medium innovation proneness (28.80 per cent) and high innovation proneness (31.60 per cent) had low, medium and high level of adoption, respectively.

Aspiration level and adoption :

It was found that, majority of the respondents with low aspiration level (12.20 per cent), medium aspiration level (28.30 per cent) and high aspiration level (29.40 per cent) had low, medium and high level of adoption, respectively.

Market orientation and adoption :

It was observed that, majority of the respondents with low market orientation (10.50 per cent), medium market orientation (30.50 per cent) and high market orientation (33.80 per cent) had low, medium and high level of adoption, respectively.

Knowledge and adoption :

It was evident that, majority of the respondents with low knowledge (22.70 per cent), medium knowledge (23.80 per cent) and high knowledge (28.80 per cent) had low, medium and high level of adoption, respectively.

Attitude and adoption :

It was noticed that, majority of the respondents with favourable attitude

(43.20 per cent), neutral attitude (1.10 per cent) and unfavourable attitude (41.10 per cent) had high, medium and low level of adoption, respectively.

Extension contact and adoption :

It was found that, majority of the respondents with low extension contact (12.20 per cent), medium extension contact (27.10 per cent) and high extension contact (28.30 per cent) had low, medium and high level of adoption, respectively.

Source of information and adoption :

Majority of the respondents with low source of information (14.90 per cent), medium source of information (27.10 per cent) and high source of information (28.30 per cent) had low, medium and high level of adoption, respectively. The same type of results were found by Gholve (1986) and Vekaria (1989).

CONCLUSION

High socio-economic status, achievement motivation, risk orientation, economic motivation, innovation proneness, aspiration level, knowledge, market orientation, extension contact and source of information were found to be leading to high level of extent of adoption in the sample.

IMPLICATIONS

The desired changes in adoption of groundnut technology by promoting through the variables like source of information, attitude, risk orientation and socio-economic status, will help extension agencies to modify their endeavours accordingly for better socio-economic growth of the farming community by organizing agricultural exhibition, agricultural film shows, farm visits, etc. more efforts should be to establish indepth extension contact.

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If I set out to prove something, I am no real scientist - I have to learn to follow where the facts lead me.

— *Spallanzani*

Man can learn nothing unless he proceeds from the known to the unknown.

— *Claude Bernad*