

RESEARCH ARTICLE :

Association of personal, social and economic attributes of farmers on demonstrated groundnut production technology

■ M.V. POKAR, R.M. JAVIA AND B.C. BOCHALIYA

ARTICLE CHRONICLE :

Received :

19.02.2016;

Revised :

12.03.2016;

Accepted :

13.04.2016

KEY WORDS :

Groundnut production technology, Front line demonstration, Socio-economic analysis

SUMMARY : The present study was conducted in 4 villages of Banaskantha district of Gujarat to know personal, social and economic characteristics of the beneficiary and non-beneficiary farmers of demonstrated groundnut production technology. Results revealed that maximum number of the respondents from beneficiary and non-beneficiary groups were middle aged (47.14% and 51.43%) and having primary education (37.14% and 47.14%). Majority respondents from beneficiary and non-beneficiary farmers were medium size of family (65.71% and 71.43%) and social participation with membership in one organization (48.57% and 55.71%). There was non-significant difference between beneficiary and non-beneficiary farmers with respect to their age, education and size of family. Maximum number of respondents from beneficiary and non-beneficiary groups had semi-medium farm size (44.29% and 48.57%), medium annual income (80.00% and 82.86%) and had medium market orientation (70.00% and 60.00%). Social participation, size of farm, annual income and market orientation were found to be significant indicating there was significant difference between beneficiary and non-beneficiary farmers.

How to cite this article : Pokar, M.V., Javia, R.M. and Bochaliya, B.C. (2016). Association of personal, social and economic attributes of farmers on demonstrated groundnut production technology. *Agric. Update*, 11(2): 133-138 (DOI : 10.15740/HAS/AU/11.2/133-138).

BACKGROUND AND OBJECTIVES

Groundnut is well known as the king of edible oilseeds and major source of edible oil. It is a major foreign exchange earning oilseed crop. But, India instead of being self-sufficient has turned out to be a large importer of edible oil in last decade. Groundnut is mainly grown in Saurashtra region of Gujarat state. The groundnut is an important and newly introduced crop of Banaskantha district among the oilseed crops. In Banaskantha district the

production of groundnut crop was increase from last 10 year due to the front line demonstration programme organized by Krushi Vigyan Kendra, Deesa.

The basic purpose of front line demonstration is to demonstrate recommended crop production technologies and its management practices on farmers field under real farming situation. Hence, looking to the importance of front line demonstrations it was felt imperative that impact of these

Author for correspondence :

R.M. JAVIA

Krishi Vigyan Kendra (J.A.U.), Nana-kandhasar (Chotila), SURENDRANAGAR (GUJARAT) INDIA
Email: rmjavia@gmail.com

See end of the article for authors' affiliations

demonstrations 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 researchers, KVK scientists and all those who are directly or indirectly involved in planning and executing the front line demonstrations.

With this view in mind the study conducted on Personal, social and economic attributes of beneficiary and non-beneficiary farmers of improved groundnut production technology demonstrated under front line demonstration.

RESOURCES AND METHODS

The list of the beneficiary farmers covered under FLD, during the last five year was obtained from KVK, SDAU, Deesa. Using the list, in Banaskantha district four villages of the Deesa taluka were selected purposively. Later a sample size of 70 beneficiary farmers and same numbers of non-beneficiary farmers were selected from same villages. Based on review of literature and discussion with experts, some important variables viz., age, education, size of family, social participation, farm size, annual income and market orientation were selected as independent variables.

The selected personal, social and economic attributes were measured either with the help of the scales developed by past researchers or by developing structured schedule.

Variables and their measurement :

The list of variables along with the techniques used for their measurements are presented in Table 1.

OBSERVATIONS AND ANALYSIS

The findings of the present study as well as relevant discussion have been presented under following heads.

Personal attributes :

Age :

Physical and psychological development of an individual is related to his age. It also plays a vital role in deciding future goals and expectations and there by it helps in developing positive attitude toward adoption of new technology. The beneficiary and non-beneficiary farmers were asked to indicate their age in completed years.

The data depicted in Table 2 show that maximum number of respondents from beneficiary group (47.14

Table 1: Variables and their measurement

Sr. No.	Variables	Instruments (scale) used for measurements
Independent variables :		
I. Personal variable :		
1.	Age	Chronological age of the respondents
2.	Education	Socio-economics Scale (SES) developed by Pareek and Trivedi (1965) was used with due modification
II. Social variable :		
1.	Size of family	Total number of members in the respondents' family
2.	Social participation	Scale developed by Vijayaraghavan (1977) was used with due modification
III. Economics variable :		
1.	Farm size	Hectares of land owned by the respondents
2.	Annual income	Total annual earnings of the respondents through all resources
3.	Market orientation	Scale developed by Samanta (1977) was used with necessary modification

Table 2 : Distribution of the respondents according to their age

Sr. No.	Age	Beneficiary farmers		Non-beneficiary farmers		'Z' Value
		No.	Per cent	No.	Per cent	
1.	Young (Upto 35 years)	24	34.29	18	25.71	0.7977 ^{NS}
2.	Middle (36 to 50 years)	33	47.14	36	51.43	
3.	Old (Above 50 years)	13	18.57	16	22.86	
Total		70	100.00	70	100.00	
Mean = 42.36		S.D. = 9.73		NS = Non-significant		

%) and non-beneficiary group (51.43%) were found in middle age group. The calculated 'Z' value (0.7977) was found non-significant indicating that the respondents from beneficiary and non-beneficiary farmers were more or less of equal age group. The probable reason for middle age dominating respondents could be that, this is the major group actively engaged in farming and being responsible for maintaining their families. They are also mostly decision makers in farming. The similar findings have been reported by Kanani (1998) and Chhodavadia (2001).

Education :

Education is the process of producing desired changes in the behaviour of the people.

The data presented in Table 3 indicate that 37.14 per cent beneficiary farmers were having primary education, while 27.14 per cent of them were found educated up to secondary education. Only 7.14 per cent beneficiary farmers and 4.29 per cent non-beneficiary farmers were found having education up to college level. Result found non-significant indicating that there was no difference between beneficiary and non-beneficiary farmers regarding their education level. The present finding has been supported by Chhodavadia (2001).

Social attributes :

Size of family :

The size of family is a factor which determines man

power. Information regarding the family size of the respondents is furnished in Table 4.

The result revealed that 65.71 per cent beneficiary farmers and 71.43 per cent of the non-beneficiary farmers were from medium sized family. The observed 'Z' value (0.7348) was found non-significant indicating that there was no difference between beneficiary and non-beneficiary farmers regarding their size of family. It can be seen that 75.71 per cent of the beneficiary farmers and 78.57 per cent of the non-beneficiary farmers were from families having more than five members. The probable reason behind this might be social custom of joint family particular among rural society. The similar finding have been reported by Patel (1995) and Kosambi (1997).

Social participation :

Social participation denotes the extent to which an individual is actively involved in the affairs of the community. It also encourages farmers to establish contact with the support system. The data depicted in Table 5 show that maximum number of respondents from beneficiary group (48.57%) and non-beneficiary group (55.71%) were membership in one organization, followed by membership in more than one organization by beneficiary (30.00%) and no participation by non-beneficiary (30.00%) farmers. The calculated 'Z' value (3.1901**) was found significant indicating there was

Table 3 : Distribution of the respondents according to their level of education

Sr. No.	Category	Beneficiary farmers		Non-beneficiary farmers		'Z' value
		No.	Per cent	No.	Per cent	
1.	Illiterate	09	12.86	13	18.57	1.8095 ^{NS}
2.	Primary education (Upto VII standard)	26	37.14	33	47.14	
3.	High school (VIII to X standard)	19	27.14	14	20.00	
4.	Higher secondary (XI to XII standard / Diploma course)	11	15.72	07	10.00	
5.	College Education	05	07.14	03	04.29	
	Total	70	100.00	70	100.00	
Mean = 1.51;		S.D.= 1.08;		NS = Non-significant		

Table 4 : Distribution of the respondents according to their size of family

Sr. No.	Size of family	Beneficiary farmers		Non-beneficiary farmers		'Z' value
		No.	Per cent	No.	Per cent	
1.	Small size (Upto 5 members)	17	24.29	15	21.43	0.7348 ^{NS}
2.	Medium size (6 to 10 members)	46	65.71	50	71.43	
3.	Large size (Above 10 members)	07	10.00	05	07.14	
	Total	70	100.00	70	100.00	
Mean = 7.35;		S.D. = 2.06;		NS = Non-significant		

significant difference between beneficiary and non-beneficiary farmers with respect to their social participation. The significant difference may be due to more interest of beneficiary farmers in various social or village level organizations. The finding gets support from the finding of Chhodavadia (2001).

Economics attributes :

Farm size :

Farm size is one of the most important indicators to

measure farmers' economic and progressiveness status. The groundnut growers were grouped into five categories viz., (i) Marginal, (ii) Small, (iii) Semi-medium, (iv) Medium and (v) Big farmers. The data in this respect are presented in Table 6.

A perusal of data in the above Table 6 shows that 44.29 per cent and 41.43 per cent of the beneficiary farmers were semi-medium and medium farmers, respectively. The beneficiary respondents with marginal, small and big holding were zero per cent, 8.57 per cent

Table 5 : Distribution of the respondents according to their social participation

Sr. No.	Social participation	Beneficiary farmers		Non-beneficiary farmers		'Z' value
		No.	Per cent	No.	Per cent	
1.	No participation	11	15.71	21	30.00	3.1901**
2.	Membership in one organization (each) at village level	34	48.57	39	55.71	
3.	Membership in more than one organization	21	30.00	09	12.86	
4.	Office bearers (each)	04	05.72	01	01.43	
	Total	70	100.00	70	100.00	
Mean = 1.06;		S.D.=0.76;		** indicate significance of value at P=0.01		

Table 6 : Distribution of the respondents according to their farm size

Sr. No.	Farm size	Beneficiary farmers		Non-beneficiary farmers		'Z' value
		No.	Per cent	No.	Per cent	
1.	Marginal (Upto 1.0 ha.)	00	00.00	03	04.29	3.1265**
2.	Small (1.01 to 2.0 ha.)	06	08.57	14	20.00	
3.	Semi-medium (2.01 to 4.0 ha.)	31	44.29	34	48.57	
4.	Medium (4.01 to 10.0 ha.)	29	41.43	18	25.71	
5.	Big (Above 10.0 ha.)	04	05.71	01	01.43	
	Total	70	100.00	70	100.00	
Mean = 3.87;		S.D. = 2.02;		** indicate significance of value at P=0.01		

Table 7 : Distribution of the respondents according to their annual income

Sr. No.	Annual income	Beneficiary farmers		Non-beneficiary farmers		'Z' value
		No.	Per cent	No.	Per cent	
1.	Low (Upto Rs. 50,000.)	02	02.86	07	10.00	6.5117**
2.	Medium (Rs. 50,001 to 2,00,000.)	56	80.00	58	82.86	
3.	High (Above Rs.2, 00,000.)	12	17.14	05	07.14	
	Total	70	100.00	70	100.00	
Mean = 125750;		S.D. = 82319.53;		** indicate significance of value at P=0.01		

Table 8 : Distribution of the respondents according to their market orientation

Sr. No.	Market orientation	Beneficiary farmers		Non-beneficiary farmers		'Z' value
		No.	Per cent	No.	Per cent	
1.	Low (Upto 28 score)	04	05.71	23	32.86	9.099**
2.	Medium (29 to 34 score)	49	70.00	42	60.00	
3.	High (Above 34 score)	17	24.29	05	07.14	
	Total	70	100.00	70	100.00	
Mean = 31.56;		S.D.= 3.05;		** indicate significance of value at P=0.01		

and 5.71 per cent, respectively. The calculated 'Z' value (3.1265**) was found to be significant indicating significant difference between beneficiary and non-beneficiary farmers with respect to their farm size. The significant difference may be due to not agreed to conduct FLD on their farm by non-beneficiary farmers considering the less land holding.

Annual income :

Farmers with sound economic condition can purchase necessary agricultural inputs, whenever they desire. This situation ultimately results in higher adoption by the farmers.

The data depicted in Table 7 show that maximum number of respondents from beneficiary group (80.00 %) and non-beneficiary group (82.86%) had medium annual income between Rs. 50,001 to 2,00,000. The 'Z' value (6.5117**) was found to be significant indicating that there was significant difference among beneficiary and non-beneficiary farmers with respect to their annual income. The higher income of beneficiary farmers may be also owing to their higher adoption of recommended crop production technology resulting to high yield. The similar findings have been reported by Patel (2004) and Prajapati (2006).

Market orientation :

It referred to orientation of the farmers about the prevalence of ready and remunerative market. The results are presented in Table 8.

The data presented in Table 8 reported that 24.29 per cent beneficiary and 7.14 per cent non-beneficiary farmers were having high category of market orientation. The result was found to be significant indicating that the significant difference between beneficiary and non-beneficiary farmers with respect to their market orientation. It can be concluded that majority (94.29 %) of beneficiary farmers were found in medium to high category of market orientation. The probable reason might be that their knowledge about the market, market news, price and demand of groundnut crop was found higher. The finding gets support from the finding of Prajapati (1993) and Solanki (2002). Similar work related to the present study was also done by Hadiya and Deshmukh (2014) and Pokar *et al.* (2014).

Conclusion :

With regards to personal characteristics, it was found that maximum number of respondents from beneficiary group (47.14%) and non-beneficiary group (51.43%) were found in middle age group, and a large majority of beneficiary farmers (87.14%) and non-beneficiary farmers (81.43%) were literate.

Considering the social attributes, it was found that majority of the respondents from beneficiary (65.71%) and non-beneficiary (71.43%) farmers having medium size of family, and just near to half of them *i.e.* beneficiary (48.57%) and non-beneficiary (55.71%) farmers were membership in one organization.

Regarding to the economics characteristics, it was found that majority of the beneficiary (85.72%) and non-beneficiary (74.28%) farmers were having semi-medium to medium size of farm, and majority among them (beneficiary 97.14% and non-beneficiary 90.00%) had medium to high level of annual income and had medium to high market orientation.

The results of 'Z' test analysis indicated that variables *viz.*, social participation, size of farm, annual income and market orientation were found to be significant indicating there was significant difference between beneficiary and non-beneficiary farmers. There was not significant difference between beneficiary and non-beneficiary farmers with respect to their age, education and size of family.

Authors' affiliations :

M.V. POKAR AND B.C. BOCHALIYA, Krishi Vigyan Kendra (J.A.U.), Nana-Kandhasar (Chotila), SURENDRANAGAR (GUJARAT) INDIA

REFERENCES

- Chhodavadia, H.C.** (2001). Impact of front line demonstration on groundnut-pigeon pea relay cropping system in Saurashtra region of Gujarat state. M.Sc.(Ag.) Thesis, Gujarat Agricultural University, Junagadh, GUJARAT (INDIA).
- Hadiya, Bharat** and Deshmukh, Girish (2014). Study on personal, socio-economic, communication, situational characteristics and constraints of adopting recommended practices of *Kharif* groundnut growers in Saurashtra zone of Gujarat. *Internat. J. Home Sci. Extn. & Comm. Manage.*, **1** (2): 80-86.
- Kanani, P.R.** (1998). Indigenous practices of groundnut cultivation followed by the farmers of South Saurashtra Zone in Gujarat state. Ph.D. (Ag.) Thesis, Gujarat Agricultural University, Sardarkrushinagar, GUJARAT (INDIA).

- Kosambi, S.R.** (1997). A study of technological gap in summer groundnut cultivation in Panchmahal district of Gujarat state. M.Sc. (Ag.) Thesis, Gujarat Agricultural University, Anand, GUJARAT (INDIA).
- Pareek, U.** and Trivedi, G. (1965). Factors analysis of socio-economics status of farmers in India, *Rural Sociol.*, **30**: 311-321.
- Patel, B.M.** (1995). Impact of front line demonstration on groundnut growers' knowledge, adoption and yield with respect to groundnut production technology. Ph.D. Thesis, Gujarat Agricultural University, Junagadh, GUJARAT (INDIA).
- Patel, V.M.** (2005). A study on adoption of *Kharif* groundnut production technology by the farmers of Sabarkantha district of Gujarat state. M.Sc. (Ag.) Thesis, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, GUJARAT (INDIA).
- Pokar, M.V.**, Javia, R.M., Sapara, G.K. and Solanki, K.D. (2014). Adoption of improved groundnut production technology under front line demonstration. *Agric. Update*, **9**(2): 186-189.
- Prajapati, M.R.** (1993). Socio-economic impact of social forestry programme on beneficiaries in Kheda district of Gujarat state. Ph.D. Thesis, Gujarat Agricultural University, Anand, GUJARAT (INDIA).
- Prajapati, R.S.** (2006). Impact of front line demonstrations on knowledge and adoption of improved pulse production technology by the farmers of North Gujarat. Ph.D. (Ag.) Thesis, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, GUJARAT (INDIA).
- Samanta, R.K.** (1977). A study of some agro-economic, socio-psychological and communication variables associated with repayment behaviour of agricultural credit users of Nationalized Bank. Ph.D. Thesis, Department of Agricultural Extension, Bidhan Chandra Krishi Viswavidyalaya, Nadia, W. B. (INDIA).
- Solanki, K.D.** (2002). Entrepreneurial behaviour of potato growers of North Gujarat Agro-climatic Zone of Gujarat state. Ph. D. Thesis, Gujarat Agricultural University, Sardarkrushinagar, GUJARAT (INDIA).
- Vijayaraghavan, K.** (1977). A critical analysis of functioning of integrated dry land agricultural development project. M.Sc. (Ag.) Thesis, Tamil Nadu Agricultural University, Coimbatore, T. N. (INDIA) .

★ ★ ★ ★ ★ ¹¹th Year of Excellence ★ ★ ★ ★ ★