

PROFILE OF THE FARMERS CULTIVATING GROUNDNUT IN THE COASTAL SANDY SOILS OF SPSR NELLORE DISTRICT OF ANDHRA PRADESH

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Date of Receipt: 19-01-2023

ABSTRACT

Date of Acceptance: 08-04-2023

The present study was conducted in the district of SPSR Nellore. To study the profile of groundnut farmers in coastal sandy soils, a total of 90 respondents were randomly selected and interviewed. The respondents were in middle age group, educated up to middle school (27.79%) and high school (24.44%), had small farm size (50.00%), medium experience in farming (58.90%), had medium extension contact (44.45%), medium mass media exposure (58.90%), medium level of innovativeness (74.44%), medium level social participation (83.33%), medium level scientific orientation (77.79%), medium level economic orientation (81.11%) and medium level risk orientation (78.90%).

KEYWORDS: Profile, Farmers, Groundnut cultivation, Coastal sandy soils.

INTRODUCTION

Coastal sandy soils are primarily present along the coastal length and are characterized by light texture with poor nutrient status, high leaching losses, low status of soil organic matter and with low microbial activity, deficit in Zinc, Iron and Boron (Singravel et al., 2011). In addition to these, coastal sandy soils have low water holding capacity, low fertility and non-suitability for majority of crops, thus creating complex management problems for farmers to cultivate crops (Caldwell et al., 2005). Inspite of poor soil conditions, farmers were cultivating groundnut crop with uncommon local practices for sustaining their livelihood in the coastal sandy soils. This study would thoroughly insight into the existing scenario of cultivation practices in groundnut crop and by taking into account the profile of the farmers. SPSR Nellore is one of the coastal districts having 167 km coastal length (Kannan, 2016). Groundnut is the major irrigated dry crop in SPSR Nellore district after rice and sugarcane and is cultivated in about 3354 hectares (Rabi, 2021-2022).

This study was taken as the cultivation is happening in uncommon farming situation and the farmers were following their own package of practices in coastal sandy soils. This study was proposed to understand the cultivation practices adopted by the farmers in coastal sandy soils and go through the issues related to intensive cultivation of groundnut crop in that ecosystem. In the light of above facts, it is felt necessary to assess the profile of groundnut farmers.

MATERIAL AND METHODS

In the present study, *Exploratory* and *Ex-post-facto* research designs were followed. The research was carried out in the SPSR Nellore district of Andhra Pradesh. It was selected purposively as it is having unique area of groundnut cultivation under coastal sandy soils. Three mandals of the district viz., Vidavaluru, Kavali and Muthukur were selected purposively for the study based on the highest area of groundnut cultivation under coastal sandy soils. From each of the selected three mandals, two villages were chosen at random and from each of the selected villages, 15 respondents were selected on simple random sampling basis thus making a total of 90 respondents. The data was collected by personal interview method through a structured interview schedule and statistical techniques like arithmetic mean, standard deviation, frequencies and percentage were used.

RESULTS AND DISCUSSION

The data gathered during the study were analyzed and the results were presented in Table 1.

Age

Table 1 clearly depicted that more than half (62.23%) of the groundnut farmers were middle aged followed by young (23.33%) and old age (14.44%) respectively. The probable reason for the above trend might be that, middle age farmers occupy large section of the society and were

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						(n = 90)
S. No.	Category	Class Interval	Frequency (f)	Percentage (%)	Mean	S.D
I.	Age					
1.	Young age	(<35 years)	21	23.33		
2.	Middle age	(36-55 years)	56	62.23	-	-
3.	Old age	(56 years and above)	13	14.44		
II.	Education					
1.	Illiterate		1	1.11		
2.	Functionally literate Primary school Middle school		1	1.11	-	-
3.			20	22.22		
4.			25	27.79		
5.	High school		22	24.44		
6.	College level		21	23.33		
III.	Farm size					
1.	Marginal (<2.5 acres)		21	23.34		
2.	Small (2.5 to 5.0 acres)		45	50.00		
3.	Medium (5.0 to 10.00 acres)		18	20.00	-	-
4.	Big (> 10 acres)		6	6.66		
IV.	Farming experience					
1.	Low farming experience Medium farming experience		20	22.22	16.94	10.49
2.			53	58.90		
3.	High farming experience		17	18.88		
V.	Extension contact					
1.	Low extension contact Medium extension contact High extension contact		23	25.55		
2.			40	44.44	26.44	8.73
3.			27	30.00		
VI.	Mass media exposure					
1.	Low mass media exposure Medium mass media exposure		16	17.77	12.74	5.74
2.			53	58.90		
3.	High mass media exposure		21	23.33		
VII	Innovativeness					
1.	Low innovativeness Medium innovativeness		17	18.88	31.17	4.34
2.			67	74.44		
3.	High innovativeness		6	6.68		
VIII.	Social participation					
1.	Low social participation Medium social participation		13	14.44	2.23	0.77
2.			75	83.33		
3.	High social participation		2	2.23		
IX.	Scientific orientation					
1.	Low scientific orientation Medium scientific orientation High scientific orientation		15	16.66		3.48
2.			70	77.79	22.84	
3.			5	5.55		
X.	Economic orientation		C	0.00		
1.	Low economic orientation Medium economic orientation High economic orientation		15	16.66	22.17	3.86
2.			73	81.11		
3.			2	2.23		
XI.	Risk orientati	on	_			
1.	Low risk orien	tation	16	17.77		
2.	Medium risk o	rientation	71	78.90	22.75	3.27
3.	High risk orientation		3	3.33		

 Table 1. Profile characteristics of Groundnut farmers

more likely to be enthusiastic towards new ideas and comparatively matured and responsible than the young age group because of their already gained experiences. On the other side, the young age farmers showed less interest in farming as they were more interested in nonagricultural occupations and self-employment. While older farmers are gradually moving away from farming and preferred to stay at their homes and take care of the allied activities such as animal husbandry to avoid heavy drudgery and hard work involved in groundnut cultivation and were also giving their land either for lease or to other farmers. These findings are in line with the findings of Ramapadmaja and Umamaheswararao (2019).

Education

It could be seen from the Table 1 that 27.79 per cent of the groundnut farmers were educated up to middle school followed by high school (24.44%), college level (23.33%), primary school (22.22%), illiterate (1.11%) and functionally literate (1.11%) respectively. More than half (52.23%) of the groundnut farmers had middle school and high school level education followed by college level. It is clear that the availability of basic educational infrastructure in rural areas had increased, and that respondents had a better understanding of the necessity of education for their overall development. This trend was followed by primary school level, illiterate and functionally literate. These findings are in line with the findings of Rathod (2013).

Farm size

It is apparent from Table 1 that 50 per cent of the groundnut farmers were small followed by marginal farmers (23.34%), medium farmers (20.00%) and big farmers (6.66%). Increasing urbanisation and transformation in land use pattern to non-farm activities in the countryside could also be attributed as potential reasons for decrease in farm size. The result was matched with Muthukumar (2016) and Venuprasad *et al.* (2018).

Farming experience

Table 1 clearly depicted that 58.90 per cent of the groundnut farmers had medium followed by low (22.22%) and high (18.88%) farming experience. The probable reason might be that, majority of the farmers were of middle age and young age group as per the above findings. The above finding has resembled the findings of Deshmukh *et al.* (2018).

Extension contact

It is apparent from Table 1 that 44.45 per cent of the respondents were having medium extension contact followed by high (30.00%) and low (25.55%) extension contact. Majority (74.45%) of the farmers were included under medium to high extension contact. The probable reason for this trend might be the increase in frequency of contact between the farmers and Village Agricultural Assistants (VAAs) working in Rythu Bharosa Kendras (RBKs). The farmers with more inclination towards latest cultivation practices might have been approaching the agricultural officers and other higher cadre extension officers for getting latest developments in agriculture. The result is in conformity with the findings of Yashashwini (2013).

Mass media exposure

From Table 1 it could be seen that, 58.90 per cent of the respondents were having medium mass media exposure followed by high (23.33%) and low (17.77%) levels of mass media exposure. This clearly signifies the effective utilization of different mass media sources such as newspaper, television and other media by the farmers, which are now more accessible even in rural areas. On the other side, Illiterate farmers might have been grouped under low mass media exposure category. The above result is in conformity with Begum (2008) and Kalyan (2011).

Innovativeness

It is obvious from the Table 1 that 74.44 per cent of the Groundnut farmers had medium level of innovativeness followed by low (18.88%) and high (6.68%) levels of innovativeness. About 81.12 per cent of farmers had medium to high innovativeness and it could be attributed to good educational qualifications, knowledge and high extension contact of farmers enabling them to take up all practices with high precision. This might have developed self-confidence which in turn had impact on innovativeness from medium to low. This result was in agreement with Gudadur and Jahanara (2018).

Social participation

It could be seen from the Table 1 that 83.33 per cent of the respondents had medium level of social participation followed by low (14.44%) and high (2.23%) levels. The probable reason for the above trend might be that, being a member of the society everybody

needs to work together cooperatively to achieve higher returns. The need of being a member or office bearer in such societies which directly involve in farming is essential for taking up appropriate and timely operations in farm production. Hence the above trend was observed. These findings were in conformity with the findings of Khodifad (2010) and Patoliya (2013).

Scientific orientation

It is evident from the Table 1 that more than half (77.79%) of the respondents had medium scientific orientation followed by low (16.66%) and high (5.55%) of scientific orientation. Lack of proper awareness, knowledge and skills on latest recommended agricultural cultivation practices were due to scanty guidance by the extension personnel. On the other side the lower education also might have resulted in more than 90 per cent of the farmers with low to medium scientific orientation. Higher education might have helped the remaining 10 per cent of the farmers for high scientific orientation. The finding is in conformity with Thiyagarajan (2011).

Economic orientation

It is evident from the Table 1 that more than half (81.11%) of the respondents had medium economic orientation followed by low (16.66%) and high (2.23%) level of economic orientation. There was always an urge to earn money in the minds of people to increase the socio-economic status and improve their standard of living. The respondents of the present study were not an exception to this kind of urge. This desire to compete with each other in improving their standard of living to clear old debts and to fulfill family commitments resulted in medium economic motivation. The finding was similar to the results of Ghintala (2013).

Risk orientation

It is evident from the Table 1that more than half (78.90%) of the respondents had medium risk orientation followed by low (17.77%) and high (3.33%) of risk orientation. Failure of monsoon in the preceding crop seasons and lack of assured irrigation supply were might be the prime factors for placing majority of the respondents under medium level category of risk orientation. At the same time this result might be due to the fact that the young, educated and interested respondents with medium levels of scientific orientation were ready to face the risk while adopting the groundnut cultivation practices. The farmers with low risk orientation (17.77%) might be due

to high investment per acre for the groundnut crop. The big farmers with higher education might have fell under high risk orientation category (3.33 %). The finding was similar to the results of Kumar (2012).

The profile of the groundnut farmers affects their level of success and failure in the cultivation of groundnut crop in the coastal sandy soils. The findings of the study clearly revealed that majority of groundnut farmers were middle aged, educated up to middle school with small farm size, medium farming experience, extension contact, mass media exposure, innovativeness, social participation, scientific orientation, economic orientation and risk orientation. These profile characteristics must be taken into account while formulating and implementing new cultivation practices and technologies which suits to the coastal sandy soils as it needs prudence attention.

LITERATURE CITED

- Bakoye, O., Baoua, I., Sitou, L., Moctar, R.M., Amadou, L., Njoroge, A.W., Murdock, L.L and Baributsa, D. 2019. Groundnut production and storage in the Sahel: Challenges and Opportunities in the Maradi and Zinder regions of Niger. *Journal of Agricultural Sciences.* 11(4): 25-34.
- Begum, M.K. 2008. A Study on participation and decision making of woman farmers in rainfed groundnut cultivation. *M.Sc. (Ag.) Thesis.* Acharya N.G. Ranga Agricultural University, Hyderabad.
- Caldwell, R.A., Boucher, R.C and Slutts, M.J. 2005. Neutrophil elastase activation of near silent epithelial sodium ion channels. *American Journal* of *Physiology-Lung Cellular and Molecular Physiology*. 288(5): 13-19.
- Ghintala, A and Singh, K. 2013. Knowledge and adoption of sprinkler irrigation system by the farmers of Banaskantha district of North Gujarat. *Indian Journal of Extension Education and Rural Development.* (21): 26-29.
- Gudadur, K and Jahanara, A. 2018. A study on awareness on farm mechanization in Uttarkannada, Karnataka. *International Journal of Pure and Applied Biosciences.* 6(1):117-122.
- Kalyan, V.N. 2011. Impact analysis of groundnut production technologies in Chittoor district of Andhra Pradesh *M.Sc. (Ag.) Thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad.

- Kannan, R., Ramanamurthy, M.V and Kanungo, A. 2016. Shoreline change monitoring in Nellore coast at east coast Andhra Pradesh district using remote sensing and GIS. *Journal of Fisheries and Livestock Production*. 4(1): 2332-2608.
- Khodifad, P.B. 2010. Sustainability of groundnut-based cropping system of South Saurashtra Agro-climatic zone of Gujarat State. *Ph.D. Thesis.* Junagadh Agricultural University, Junagadh.
- Kumar, A. 2012. Adoption behaviour of farmers about recommended technologies of soyabean. *M.Sc.* (*Ag.*) Thesis. Dr. Panjabrao Deshmukh Krishi Vidyapeeth Krishinagar, Akola.
- Muthukumar, R. 2016. A study on knowledge, adoption and marketing behaviour of medicinal plant growers. *Ph.D Thesis*. Annamalai University, Annamalainagar.
- Patoliya, J.U. 2013. Impact of frontline Demonstrations on groundnut growers. *M.Sc. (Ag.) Thesis*. Anand Agricultural University, Gujarat.
- Ramapadmaja, M and Umamaheswararao, T. 2019. Impact of technology on groundnut production of Chittoor district. *International Journal of Recent Technology and Engineering*. 8(1): 933-938.

- Rathod, M.K., Tidke, G.R and Mandve, R.P. 2013. Impact of frontline demonstrations on adoption of seed treatment in soybean. *Indian Research Journal of Extension Education*. 13(2): 72-77.
- Singarvel, R and Elayaraja, D. 2011. Influence of organics and various levels of NPK on the soil nutrient availability, enzyme activity and yield of groundnut in coastal sandy soil. *Journal of Indian Society of Soil Science*. 59(3): 300-303.
- Thiyagarajan, M. 2011. Impact analysis of System of Rice Intensification (SRI) among the paddy farmers of Coimbatore district. *M.Sc. (Ag.) Thesis*. Tamil Nadu Agricultural University, Coimbatore.
- Venuprasad, H.D., Premlatha, S and Venkatramulu, M. 2018. Study on farmers level of knowledge towards vegetable cultivation. *The Journal of Research*, *ANGRAU*. 46(2): 75-82.
- Yashashwini, M.A. 2013. Effectiveness of frontline demonstrations of Krishi Vigyan Kendra on FLD farmers of Mandya District. *M.Sc. (Ag.) Thesis*. University of Agricultural Sciences, Gandhi Krishi Vigyan Kendra, Bengaluru.