

A Study on Socio-Economic Profile of the Redgram Growers in North-Eastern Karnataka

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ABSTRACT

In Karnataka state, nearly 0.82 million hectares of area under redgram cultivation with production of 0.61 million tonnes and their average yield/productivity is 733 kg per hectares. The research study conducted in North Eastern region of Karnataka during the year 2017-18 to know the socio-economic status of the redgram growers. The results of the study reveals the personal characteristics of redgram growers, more than half (53.88 %) of the respondents belonged to middle age group, more than one fourth of the respondents were educated up to middle school (37.78 %), more than three fourth of the households belongs to the medium (76.11%) level, more than half (56.11 %) of respondents belonged to medium farming experience category and 39.44% of respondents belong to low category of family dependency. With respect to socio-economic characteristics of redgram growers, more than one third (36.67 %) of the respondents had medium land holding, 27.78% of the respondents belonged to high income category, 43.89% of the

respondents possessed low level of livestock and more than half of the respondents belong to medium (59.44 %) category of material possession. In case of socio-psychological characteristics of redgram growers, attributes like economic motivation, risk orientation, scientific orientation, innovativeness, deferred gratification, market orientation and credit orientation were fall under medium level category. Redgram growers' social participation were low level and their leadership ability also low level and achievement motivation was high level.

Keywords Achievement motivation, Farming experience, Income, Redgram, Socio-economic characteristics.

INTRODUCTION

Pigeonpea or redgram (*Cajanus cajan* (L.) Millsp.), stands in the list of the major pulse crops of the tropics and sub-tropics. In India pigeonpea known as tur (Tur in many states of India), redgram, arhar, thogari (thogari in local language in Karnataka) congobean, gandul, tuvarica. Redgram stood 6th (sixth) rank in area and production in comparison to other pulses such as gram or bengal gram, beans and peas. In India, Pigeonpea or redgram mainly grown in many states like Maharashtra, Madhya Pradesh, Karnataka, Andhra Pradesh, Rajasthan and Uttar Pradesh and it occupies 3.89 million hectares of area with the about 3.30 million tonnes of production, having yield

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of 849 kg per hectare on an average (Anonymous 2016). With respect to Karnataka state, nearly 0.82 million hectares of area under redgram cultivation with production of 0.61 million tonnes and their average yield/productivity is 733 kg per hectares. It is largely cultivated in Kalaburgi (Gulbarga), Vijayapura (Bijapur), Bidar and Yadgir districts of northern parts of Karnataka. Thus, North-East Karnataka region is called as "Pulse bowl of Karnataka". The adoption of recommended technologies, new improved practices and proper management techniques helps in increase the productivity or yield of redgram. The growers expects more farm income from their farming, which may be in the terms of yield or income which is obtained by selling their produced quantity in the market, which is needed for meeting the needs and necessity of the family and household (Tonbary1957).

Redgram crop one of the economical food grains crop which gives higher production per unit area and provides good source of income to farmers. The production of redgram has increased considerably during the recent years because of introduction of new and modern inputs and development of new innovative production technique. Large number of farmers are cultivating redgram in wider spread area (Vinaya *et al* 2018). The objectives of the study were, to delineate the personal, socio-economic, psychological attributes of redgram growers in application of recommended technologies. Generally, the socio-economic analysis focuses on identifying the adaptive capacity of individuals/communities based on their internal characteristics. The socio economic characteristics includes age, educational status, family size (members), farming experience (years), family dependency ratio, landholdings (acres), annual income (rupees), livestock possession, material possession etc. Keeping these in view, the present investigation was carried out to know the socio- economic status of the redgram growers in North-Eastern region of Karnataka.

MATERIALS AND METHODS

The study conducted to know socio- economic status of the redgram growers in North-Eastern region of Karnataka. The research study conducted in North Eastern region of Karnataka mainly in three districts viz, Bidar, Kalaburgi and Yadgir during the year 2017-

18. These districts were purposively selected as these ranks first, second and third in area and production of redgram (www.indiastat.com). The total sample size is 180, in each district 2 taluks were selected and from each taluka 2 village were selected for the study. Thus, 30 respondents or redgram growers were selected from one taluka. In each village, 15 redgram growers were selected randomly. Ex-post fact research design suitable for the study and employed. Personal interview method was used for data collection. Data were tabulated, analyzed and interpreted in the light of objectives of the study.

RESULTS AND DISCUSSION

Personal characteristics of redgram growers

Age: It was clear from the results presented in the Table 1 that, more than half (53.88 %) of the respondents belonged to middle age group followed by old age (34.44 %) and young age (11.68 %) groups. Farmers of middle age are more enthusiastic, have more knowledge on new practices and tend to have more family responsibilities than young and older ones. As they are the bread earners for their family most of them are found to be in the middle age group. Similarly, the studies of Prabhu (2006) delineated the dominance of middle age group were in agreement with the present findings.

Education: It was evident from the Table 1 that, more than one fourth of the respondents were educated up to middle school (37.78 %) and primary school (27.22 %). 14.44% of them were illiterate and 9.44 per cent of the respondents educated up to pre university followed by high school (8.90 %) and only 2.22% were graduates. This indicates the literacy level is augmenting in rural areas too. The rural social environment was the major cause for such trend in rural area. As the rural people are still traditional bound they generally do not prefer to send their children to school and colleges and they except their children to assist in farm and house hold activities. The distance of higher study centers from village also might have prevented the parents from providing higher education to their children. These findings are in line with the studies of Kumar (2004).

Table 1. Personal characteristics of redgram growers. (n=180).

Sl. No.	Characters/ category	Criteria	Respondents	
			No.	Per cent
1		Age (year)		
	Young	< 30	21	11.68
	Middle	30-49	97	53.88
	Old	> 49	62	34.44
2		Education		
	Illiterate	Cannot read and write	26	14.44
	Primary school	1-4 th standard	49	27.22
	Middle school	5-7 th standard	68	37.78
	High school	8-10 th standard	16	8.90
	Pre university	11-12 th standard	17	9.44
	Graduate	Above 12 th standard	4	2.22
3		Family size (members)		
	Small family	1-4	19	10.56
	Medium family	5-6	137	76.11
	Large family	> 7	24	13.33
4		Farming experience (years)		
	Less	<6	12	6.67
	Medium	6 – 12	101	56.11
	High	> 12	67	37.22
5		Family dependency ratio		
	Low	<1.28	71	39.44
	Medium	1.28 – 2.64	58	32.22
	High	> 2.64	51	28.34

Family size (members): With regard to family size (Table 1), more than three fourth of the households belongs to the medium (76.11%) family size that is having the family members from 5-6 followed by large family (13.33%) having members more than 7 and small family (10.56%) of 1-4 members. The family size may act as a stimulus in decision making on different activities pertaining to on and off farm. Here if the family member more they can discuss each other about the good practices and low cost input of redgram to increase the yield and returns. The study revealed that, medium size family category was predominant in redgram cultivation especially in

rainfed condition. This type of family size enhances farmers' involvement in different activities to take a right decision in farming. The above findings are in conformity with findings of Yashodhara (2015).

Farming experience (years): With regard to farming experience, more than half (56.11 %) of respondents belonged to medium farming experience category followed by high (37.22 %) and low (6.67 %) farming experience categories (Table 1). The majority of the respondents were educated upto middle school and primary school education level later on they might have started practicing agriculture as their main occupation and probably they might have been the member of joint families, under such a situation knowledge and new practices will improve their farm and they can take their decision in adopting new technologies. These factors might have contributed for 56.11% of farmers to fall under the category of medium level of farming experience. Some of the redgram growers had more than 20 years of farming experience probably they might have started farming occupation at an early age of their life. Further, it was observed that only 6.67% of the farmers had low level of farming experience. As they have studied upto PUC and graduation level. After completing their education they might have started agriculture as their occupation. Hence, majority of them belonged to medium farming category and has the support the findings of Thiranjangowda (2005).

Family dependency ratio: With respect to family dependency ratio (Table 1), 39.44% of respondents belong to low category of family dependency ratio followed by medium (32.22 %) and high (28.34 %) category. The study revealed that majority of the redgram growers belonged to low dependency ratio followed by medium and high dependency ratio. The reason might be majority of the respondents in this region were redgram growers so, the old age category farmers were somewhat involving in redgram cultivation and their earning is completely dependent on redgram cultivation and some of old and children's depends on their family. This might be the likely reason for this type of findings. The studies of Devarajaiah (2010) were contradictory to the present findings.

Table 2. Socio-economic characteristics of redgram growers.

Sl. No.	Characters/ category	Criteria	Respondents	
			No.	Per cent
Landholdings (acres)				
1	Marginal farmer	< 2.5	13	7.22
	Small farmer	2.5-5.0	35	19.45
	Semi medium farmer	5.0-10.0	58	32.22
	Medium farmer	10.0-25.0	66	36.67
	Big farmer	>25.0	8	4.44
Annual income (rupees)				
2	Low	<17,000	41	22.78
	Semi-medium	17,000-34,000	49	27.22
	Medium	34,000-51,000	40	22.22
	High	>51,000	50	27.78
Livestock possession				
3	Low	<6.28	79	43.89
	Medium	6.28 – 17.45	58	32.22
	High	> 17.45	43	23.89
Material possession				
4	Low	< 2.91	31	17.23
	Medium	2.91 – 4.46	107	59.44
	High	> 4.46	42	23.33

Socio-economic characteristics of redgram growers

Landholdings (acres): With respect to land holding, more than one third (36.67 %) of the respondents had medium land holding followed by semi medium (32.22 %), small (19.45 %), and marginal (7.22 %) land holdings. A meagre (4.44 %) per cent of them had big land holdings (Table 2). The possible reasons for this trend might be due to the fact that, being agriculture as main occupation and their way of life, so they always would like to possess more and more acres of land. In this region we can find that maximum acres of land under redgram cultivation i.e., 10-25 acres. These findings are in line with the studies of Raghavendra (2004).

Annual income (rupees): It was clear from Table 2 that, 27.78% of the respondents belonged to high income category followed by semi-medium (27.22 %) and low (22.78%) income categories. The possible

reason might be the large amount of famers having 10-25 acres land holdings and growing two crops in a year along with some commercial crops also. Both *kharif* and *rabi* crops are taken up by the farmers. Some of the farmers of the area are highly skillful and following recommended cultivation practices so they can get more profit from different crops in a year. All these factors could have favorably influenced the respondents to obtain better income. These results were in line with the results of Nayak (2007).

Livestock possession: It was observed that 43.89% of the respondents possessed low level of livestock, followed by medium level (32.22 %) and high livestock possession (23.89 %) respectively (Table 2). The reason for not possessing number of livestock namely cows, buffaloes and other livestock animals might be due to the high cost involved in purchasing of these animals and fodder problem. Another reason might be that the livestock required extra care for their maintenance. The findings were in line with the research results of Gour (2002).

Material possession: The data in Table 2 indicates that more than half of the respondents belong to medium (59.44 %) category of material possession followed by high (23.33 %) and low (17.23 %) level of material possession. The reason for medium possessing might be due to the farmers have low purchasing power to buy costly farm machineries and the maintenance cost for these machineries is also high.

Socio-psychological characteristics of redgram growers

Social participation: The data in Table 3 reveals that more than one third (39.44 %) of redgram growers had low social participation followed by slightly less than one third (31.12 %) of respondents belongs to medium category and high (29.44 %) category of social participation. The findings about social participation could be explained on the basis of the fact that majority (39.44 %) of the respondent low level participation in activities of social organizations and 31.12% of respondent participated in medium level in social organization which leads farmers are getting information medium level about the redgram cultivation practices, because majority of the famers were

Table 3. Socio-psychological characteristics of redgram growers.

Sl. No.	Characters/ category	Criteria	Respondents	
			No.	Per cent
Social participation				
1	Low	< 5.35	71	39.44
	Medium	5.35 – 7.41	56	31.12
	High	> 7.41	53	29.44
Economic motivation				
2	Low	< 22.79	54	30.00
	Medium	22.79 – 25.86	74	41.11
	High	> 25.86	52	28.89
Risk orientation				
3	Low	< 11.20	36	20.00
	Medium	11.20 – 12.00	97	53.89
	High	> 12.00	47	26.11
Scientific orientation				
4	Low	< 8.68	34	18.88
	Medium	8.68 – 11.30	91	50.56
	High	> 11.30	55	30.56
Achievement motivation				
5	Low	<41.57	48	26.67
	Medium	41.57 – 45.91	54	30.00
	High	> 45.91	78	43.33
Innovativeness				
6	Low	<5.42	52	28.89
	Medium	5.42 – 9.18	73	40.56
	High	> 9.18	55	30.55
Deferred gratification				
7	Low	<23.60	56	31.11
	Medium	23.60 – 26.84	67	37.22
	High	> 26.84	57	31.67
Market orientation				
8	Low	<20.93	39	21.66
	Medium	20.93 – 24.33	93	51.67
	High	> 24.33	48	26.67
Credit orientation				
9	Low	< 11.82	31	17.22
	Medium	11.82 – 13.13	94	52.22
	High	> 13.13	55	30.56
Leadership ability				
10	Low	<8.25	64	35.56
	Medium	8.25 – 10.84	60	33.33
	High	> 10.84	56	31.11

gathered the information about redgram cultivation from the who participated in social organization activities. Majority of the villages have sufficient number of social organizations for the participation and interest of respondents to participate in such organizations. The present study results are in line with the findings of Ereneus (2010).

Economic motivation: With regard to economic motivation (Table 3), 41.11% of respondents had medium level of economic motivation followed by low (30.00%) and high (28.89%) level of economic motivation respectively. The likely reason might be that the redgram growers attached greater importance to profit maximization and adopting the new practices in their field so that, they can get more yield and get maximum returns. The observations made by Ereneus (2010) and Raksha *et al.* (2012).

Risk orientation: The results presented in Table 3 revealed that, more than half (53.89 %) per cent of the respondents belonged to medium risk orientation category, followed by high (26.11 %) and low (20.00 %) risk orientation categories. It could be due to the fact that risk taking is a must for working class people to earn money to lead a life and redgram growers were made up their mind to take moderate risk and have put efforts to adopt new agricultural practices to reach their goal and get maximum yield by adopting new proven technology in redgram cultivation. The study results were supported by the findings of Lavanya (2010) and Devarajaiah (2010).

Scientific orientation: It was clear from the results that, slightly more than half (50.56 %) of the respondents belonged to medium scientific orientation category. Whereas, 30.56 and 18.88% of them belonged to high and low scientific orientation categories, respectively (Table 3). The plausible reason for the above type of findings might be due to their medium education level and also following the new practices which is adopted by fellow grower. The results of the present study are in conformity with the findings of Lavanya (2010).

Achievement motivation: From the Table 3 it is observed that 43.33% of the respondents had high achievement motivation, followed by medium (30.00

%) and low (26.67%) achievement motivation, respectively. The reason is that achievement motivation is basic character which motivates and helps an individual to do anything in farming for better returns. It is a psychologically internalized condition which drives an individual to aspire for higher level of earning and living. Some other reasons could be again their knowledge, education level, sufficient land holding and more farming experience which motivate them to adopt good practices of farming. The findings were in conformity with the results of the studies conducted by Maraddi (2006).

Innovativeness: From the Table 3 it could be vividly observed that 40.56% of the respondents falling under medium innovativeness category followed by high (30.55 %) and low (28.89 %) innovativeness category. Reason for medium innovativeness is, by seeing other fellow farmers, the farmers started adopting innovative practices in their field. And some other reason like medium level of education, high level of achievement motivation, medium level farming experience, extension participation and medium level of information seeking behavior which all the above reasons leads to the medium level of innovativeness. The results are in accordance with the findings of Reddy (2006).

Deferred gratification: With respect to deferred gratification (Table 3), it is observed that 37.22% of respondents belonged to medium level of deferred gratification category and slightly less than one third (31.67 %) per cent of respondents belonged to high and low (31.11 %) level of deferred gratification category, respectively. This might be due to the reason of farmers have high level credit orientation and also may be because the fact that deferred gratification helps to overcome unforeseen circumstances to manage drought situation, pest and disease outbreak, market glut, price fluctuations and other situations. The studies of Yashodhara (2011) contradicts the present study results.

Market orientation: It was revealed from Table 3 that slightly more than half (51.67 %) of the respondents belonged to medium category of market orientation, followed by high (26.67 %) and low (21.66 %) market orientation categories. Assured marketing and

easy access to marketing information had resulted in medium to high market orientation of the growers. It is mainly due to the fact that most of the growers enter in pre harvest sale contract also some of the growers getting information through messages and their fellow farmers, and farmers were found to sale their produce in nearby cities and in local market so that it might reduce the farmers' drudgery. The result is in line with the findings of Thorat (2003).

Credit orientation: It was revealed from the Table 3 that, the present study observed that half of the redgram growers (52.22 %) had medium level of credit orientation, 30.56% high and 17.22% low levels of credit orientation. This may be due to the need and interest of the redgram growers to take the credits, somewhat easy accessibility of financial institution in specific area and easy procedure to take the credits. The results of the study are in line with the findings of Yashodhara (2011).

Leadership ability: It was revealed from Table 3 that, 35.56% of redgram growers have low level of leadership ability followed by medium (33.33 %) and high (31.11 %) level of leadership ability. This clearly indicated that, the leadership quality is somewhat conspicuous in redgram production area because even though they are having a good decision taking power, majority of the farmers were hesitate to involvement in group discussion and new approaches for problem solving and they do not want to come forward to express their problems regarding low income.

CONCLUSION

In India redgram make a significant contribution in terms of protein and energy provision to the household. In the study more than half of the respondents belonged to middle age group, more than one fourth of the respondents were educated up to middle school, more than three fourth of the households belongs to the medium level, more than half of respondents belonged to medium farming experience category and family dependency belong to low level category. With respect to socio-economic characteristics of redgram growers, more than one third of the respondents had medium land holding and high income category. In case of livestock possession was low level and more

than half of the respondents belong to medium category of material possession. With respect socio-psychological characteristics of redgram growers, attributes like economic motivation, risk orientation, scientific orientation, innovativeness, deferred gratification, market orientation and credit orientation were fall under medium level category. Redgram growers' social participation were low level and their leadership ability also low level, and achievement motivation was high level. To conclude, the study found that the redgram growers had medium level of personal characteristics, socio-economic characteristics and socio-psychological characteristics profile of redgram growers, which inhibited them to apply the recommended technologies of farm universities/KVK. The Socio-economics information would be helpful to the regram growers and pulse crop growers in general and for making decisions related to redgram production. The productivity is influenced by the production methods as well as the socio-economic characteristics and psychological characteristics of farmers.

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