



A STUDY OF SOCIO – ECONOMIC PROFILE OF SEED GROWERS IN RAICHUR DISTRICT OF KARNATAKA

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ABSTRACT

A study on entrepreneurial behaviour of seed production farmers in Raichur district of Karnataka was carried out during 2015-16. By following appropriate purposive sampling procedure 120 farmers were selected and the data was collected by personal interview method. Ex- post facto research design was followed for carrying out the study. The majority of the respondents belonged to middle age (65.00%), High School (49.16%), medium farmers (49.16%), had medium farming experience (67.50%), medium annual income (50.83%), high risk orientation (68.33%), high achievement motivation (63.33%), high management orientation (61.66%), medium cropping intensity (53.33%), medium mass media participation (42.50%), medium extension participation (40.84%) medium information seeking behaviour (41.66%). The data was analysed by using a appropriate statistical tools like mean, frequency and percentage.

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INTRODUCTION

Seed is the basic and most critical input for sustainable agriculture. The response of all other inputs depends on quality of seed to a larger extent. It is estimated that the direct contribution of quality seed alone to the total production is about 15-20% depending upon the crop and it can be further raised up to 45% with efficient management of other inputs. The developments in the seed industry in India, particularly in the last 30 years, are very significant. A major re-structuring of the seed industry by Government of India through the National seed project phase-1 (1977-78), phase-2 (1978-79) and phase-3

(1990-91), was carried out, which strengthened the seed infrastructure that was most needed and relevant during those times. This could be termed as a first turning point in shaping of an organized seed industry. Introduction of new seed development policy (1988-89) was yet another significant milestone in the Indian seed industry (Anon., 2015). The Indian seed programme largely adheres to the limited generations system for seed multiplication in a phased manner. The system recognizes three generations namely breeder, foundation and certified seeds which provides adequate safeguards for quality assurance in the seed multiplication chain to maintain the purity of the variety as it flows from the breeder to the farmer. With recent technological development in agriculture, seed production has become more complex business and requires careful planning for successful operations. The seed production is systematically organized, carefully planned based on the best information available and

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aimed to achieve higher yields and best quality of seed out of their resources. It is the deliberate and conscious effort on the part of the seed grower to think about the seed programme in advance and adjust them according to new knowledge on technological development changes in physical and economic situation, price structures etc. Keeping in this view, a study was undertaken to assess socio – economic profile of seed growers in Raichur District of Karnataka.

MATERIALS AND METHODS

The study was conducted in Raichur district of Karnataka. In Raichur district, Raichurtaluk Manavitaluk were had maximum number of seed growers and hence selected purposively as a locale of the study. Three crops namely pigeon pea, chickpea and paddy were selected for the study. The villages having maximum number of farmers involved in seed production were listed in descending order in consultation with seed unit UAS Raichur. From the list, ten villages namely, Sitanagar camp, Idapnur, Marched, Gunjalli, Burdipad, Devanpally, Chikkalaparvi, KalluruHuda and gonal having maximum number of seed growers were selected. By using purposive sampling procedure 40 pigeonpeaseed growers, 40 chickpea seed growers from Raichurtaluk were selected and 30 paddy seed growers were selected from Raichur and 10 paddy seed growers were selected from Manvitalukthus, the total sample size constituted to 120 respondents. The data were collected with the help of a pre tested interview schedule through personal interview. The socio-economic categories were formulated as low, medium and high on the basis of mean \pm SD. The frequency and percentage were calculated.

RESULTS AND DISCUSSION

Socio – economic characteristics of seed growers

Age: From Table 1 it could be inferred that, more than half (65.00%) of the growers were middle aged followed by young aged (24.16%). The old age group constituted 10.83 percent of the growers. The middle age farmers comparatively have free hand in financial affairs and they can take up independent decision to implement their ideas. Farmers of middle age are enthusiastic and are having moderate experience in farming and have more work efficiency than older and younger over. They also possess more physical vigour and more family responsibilities than younger ones. The results are in confirmity with the findings of Bhople (2017) and Suresh (2004).

Education: It is clear from the Table 1 that nearly half (49.16%) of the growers had high school education, followed by education up to pre- university, middle school, primary school, with 21.66, 13.33, and 5.83 per cent respectively. Equal numbers of growers were observed in case of graduates (5.00%) and illiterates (5.00%). The probable reason for majority of farmers to be educated up to high school might be due to their medium socio-economic status, lack of facilities for college education in nearby villages, which forces them to travel to taluka headquarters if at all they want to pursue college education. Realization of importance of formal education both by farmers and offsprings, due to increased contact with educated people like extension personnel might have motivated few of them to pursue higher education. The

illiteracy of the farmers might be due to ignorance and less contacts with other educated people in addition to their socio-economic status. These findings are in line with the studies of Nagesh (2006).

Size of land holding: From the Table 1 it could be noticed that, highest percentage (49.16%) of growers belonged to medium land holding category, followed by big, semi-medium and small farmers with 25.83, 21.66 and 3.33 per cent of land holding categories, respectively. The possible reason could be that the main occupation of the growers is only agriculture and they must have inherited this land holding from their ancestors. Moreover, it might be easier to employ latest technology in medium farms rather than small farms. These findings are in agreement with the studies of Mehta *et al.* (2012).

Farming experience: It is evident from the Table 1 that more than half (67.50%) of the growers had medium farming experience, followed by 17.50 and 15.00 per cent of the growers having low and high level of farming experience, respectively. The reason for above findings might be that most of the farmers were middle aged. The findings are in line with the studies of Ramakrishna (2012).

Annual income: It is apparent from the Table 1 that, half (150.83%) of the growers had medium annual income, followed by high (37.50%) and low (11.66%) income respectively. The probable reason, which could be attributed for varied income categories of growers might be due to the size of the land holding and practicing of subsidiary occupations by the growers. The results are in confirmity with the findings of Suresh (2004).

Risk orientation: It is apparent from Table 1 that more than half (68.33%) of the growers had high level of risk orientation, followed by 17.50 and 14.16 per cent of the growers having medium and low level of risk orientation, respectively. This is evident from the results which might be because of contact with extension personnel by the growers, which increased the perception and confidence in growers about new technologies and to gain more income by taking risk. All these factors might have resulted in the growers belonging to high risk orientation. The results are in confirmity with the findings of Bhagyalaxmiet *al.* (2003) and Suresh (2004).

Achievement motivation: It is evident from the Table 1 that majority (63.33%) of the growers high achievement motivation, followed by 20.00 and 16.33 per cent of the growers having medium and low level of achievement motivation, respectively. Higher the motivation of the individual, higher will be his efforts. This predominant high motivation levels can be attributed to the social and economic status of a respondent, who feels to achieve greater goals. The findings are in agreement with the studies conducted by Suresh (2004).

Management orientation

It is clear from the Table 1 that majority (61.66%) of the growers high management orientation, followed by 20.83 and 17.50 per cent of the growers having medium and low level of achievement management orientation, respectively. The probable reason for high level of management orientation might be their high extension contacts and discussion with the field extension personnel.

Table 1. Distribution of the seed growers according to their personal and socio-economic characteristics (n=120)

Sl. No.	Characteristics	Frequency	Percentage
I.	Age		
1.	Young (<30)	29	24.16
2.	Middle (between 31-49)	78	65.00
3.	Old (above 50 years)	13	10.83
II.	Education		
1.	Illiterate	6	5.00
2.	Primary	7	5.83
3.	Middle school	16	13.33
4.	High school	59	49.16
5.	Pre-university	26	21.66
6.	Degree and above	6	5.00
III.	Size of land holding		
1.	Marginal farmers (up to 2.50)	0	0.00
2.	Small farmers (2.51-5.00)	4	3.33
3.	Semi Medium farmers (5.01-10.00)	26	21.66
4.	Medium farmers (10.01-25.00)	59	49.16
5.	Big farmers (> 25)	31	25.83
IV.	Farming experience		
1.	Low (Mean-0.425*SD)	21	17.50
2.	Medium (Mean \pm 0.425*SD)	81	67.50
3.	High (Mean+0.425*SD)	18	15.00
		Mean: 4.06	S.D: 0.77
V.	Annual income		
1.	Low (< 70,000)	14	11.66
2.	Medium (75,001-2,00,000)	61	50.83
3.	High (>2,00,001)	45	37.50
VI.	Risk orientation		
1.	Low (Mean-0.425*SD)	17	14.16
2.	Medium (Mean \pm 0.425*SD)	21	17.50
3.	High (Mean+ 0.425*SD)	82	68.33
		Mean: 4.06	S.D: 0.77
VII	Achievement motivation		
1	Low (Mean-0.425*SD)	20	16.33
2	Medium (Mean \pm 0.425*SD)	24	20.00
3	High (Mean+0.425*SD)	76	63.33
		Mean: 15.6	S.D:5.56
VIII	Management Orientation		
1	Low (Mean-0.425*SD)	21	17.50
2	Medium (Mean \pm 0.425*SD)	25	20.83
3	High (Mean+0.425*SD)	74	61.66
		Mean: 13.90	S.D:0.89
IX	Cropping intensity		
1	Low (Mean-0.425*SD)	10	8.33
2	Medium (Mean \pm 0.425*SD)	64	53.33
3	High (Mean+0.425*SD)	46	38.33
		Mean: 100.72	S.D: 13.02
X	Mass media participation		
1	Low (Mean-0.425*SD)	36	30.00
2	Medium (Mean \pm 0.425*SD)	51	42.50
3	High (Mean+0.425*SD)	33	27.50
		Mean: 10.53	S.D: 4.45
XI	Extension participation		
1	Low (Mean-0.425*SD)	37	30.83
2	Medium (Mean \pm 0.425*SD)	49	40.84
3	High (Mean+0.425*SD)	34	28.33
		Mean: 18.60	S.D: 6.53
XII	Information seeking behaviour		
1	Low (Mean-0.425*SD)	36	30.00
2	Medium (Mean \pm 0.425*SD)	50	41.66
3	High (Mean+0.425*SD)	34	28.33
		Mean: 28.56	S.D: 5.04

These interactions might have helped the farmers to reorient their current management practices. Exposure of the farmers to various professional situations like extension meetings, exhibitions, field days, Krishimela etc., also might have contributed to develop their high level of management orientation in comparison to other farmers. The findings are in accordance with the studies conducted by Shakyaa *et al.* (2008).

Cropping Intensity: It is evident from the Table 1 that more than half (53.33%) of the growers had medium crop intensity, followed by 38.33 and 8.33 per cent of the growers having high and low level of cropping intensity, respectively.

The possible reason for above findings might be the farmers cultivated crops only in one or two seasons, or may be due to lack of irrigation facilities. The findings are in accordance with the studies conducted by Manjunatha (2011).

Mass media participation: The finding from the Table 1 showed that, around 42.50 per cent of the growers belonged to medium mass media participation category. Whereas, 30.00 and 27.50 per cent of farmers belonged to low and high mass media participation categories, respectively. Mass media contact enhances the ability of farmers to get more information about current affairs as well as information on recent

Table 2. Distribution of seed growers according to their individual component of mass media participation (n=120)

Sl. No.	Sources	Subscribed/possessed		Programs	Frequency of use					
		Frequency	Percentage		Regular		Occasional		Never	
					Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1.	Radio	25	20.83	Agriculture	3	2.50	22	18.33	93	77.50
				Entertainment/ News	4	3.33	20	16.66	96	80.00
2.	T.V	118	98.33	Agriculture	88	73.33	23	19.16	9	7.50
				Entertainment/ News	100	83.33	18	15.00	2	1.66
3.	News paper	86	71.66	Agriculture	37	30.83	41	34.16	42	35.00
				Entertainment/ News	36	30.00	52	43.33	32	26.66
4.	Magazine	39	32.50	Agriculture	6	5.00	34	28.33	80	66.66
				Entertainment/ News	3	2.50	35	29.16	82	68.33
5.	Mobile	110	91.66	Agriculture	47	39.16	63	52.50	10	8.33
				Entertainment/ News	63	52.50	47	39.16	10	8.33

Table 3. Distribution of seed growers according to their individual component of extension participation (n=120)

Sl. No.	Categories	Participated		Extent of participation					
				Regular		Occasional		Never	
		F	%	F	%	F	%	F	%
1	Training	105	87.50	32	26.60	73	60.83	15	12.50
2	Demonstrations	46	38.33	9	7.50	37	30.83	74	61.66
3	Field days	76	63.33	14	11.66	62	51.66	44	36.66
4	Field visit	89	74.16	6	5.00	83	69.16	31	25.83
5	Group meetings	66	55.00	4	3.33	62	51.66	54	45.00
6	Agril. Exhibitions	111	92.50	10	8.33	101	84.16	9	7.50
7	Krishimelas	112	93.33	16	13.33	96	80.00	8	6.66
8	Education tour	50	41.66	4	3.33	46	38.33	70	58.33

*F = Frequency, % = Percentage

Table 4. Distribution of seed growers according to their individual component of information seeking behaviour (n=120)

Sl. No.	Information sources	Degree of contact							
		Frequently		Occasionally		Rarely		Never	
		F	%	F	%	F	%	F	%
I	Informal sources								
1.	Family members	89	74.16	24	20.00	7	5.83	0	0.00
2.	Friends/ relatives	41	34.16	74	61.66	5	4.16	0	0.00
3.	Neighbours	31	25.83	84	70.66	3	2.50	2	1.66
4.	Progressive farmers	13	10.83	92	76.66	10	8.33	5	4.16
II.	Formal sources								
5.	Village panchayat member	3	10.83	91	75.83	12	10.00	14	11.66
6.	RSK/ KSDA	14	11.66	83	69.16	10	8.33	13	10.83
7.	UASR/ KVK/ AEECS	15	12.50	79	65.83	14	11.66	12	10.00
8.	Scientists from Agriculture University	89	74.16	18	15.00	5	4.16	8	6.66
9.	Agro input agencies	8	6.66	91	75.83	9	7.50	12	10.00
10.	Bank officials	3	2.50	53	44.16	49	40.16	14	11.66
III	Mass media								
11.	News papers	37	30.83	24	20.10	32	26.66	27	22.50
12.	Radio	4	3.33	15	12.50	16	13.33	85	70.83
13.	Television	114	95.00	2	1.66	3	2.50	1	0.83
14.	Farm literature	3	2.50	76	63.33	9	7.50	32	26.66
15.	Film shows	31	25.83	78	65.00	5	4.16	6	5.00

*F = Frequency, % = Percentage

agricultural technology or innovation and in turn widens the mental horizon of the farmers to accept and adopt the practices. The results are in conformity with the findings of Nagesh (2006).

Extension participation: It is evident from the Table 1 that, about 40.84 per cent of the growers had medium extension participation, followed by 30.83 and 28.33 per cent of the growers having low and high level of extension participation, respectively. The probable reason for majority of farmers in medium category might be because of their interest in extension activities to gather recent information and their education level. The results are in accordance with the findings of Anitha (2004).

Information seeking behavior: It is evident from the Table 1 that, about 41.66 per cent of the growers had medium information seeking behaviour, followed by 30.00 and 28.33 per cent of the growers having low and high level of information seeking behaviour, respectively. The possible reasons for above findings might be due to their medium education, extension participation and mass media participation. The results are in conformity with Alarimaet *al.* (2011) and Manjunatha (2011).

Individual component wise mass media participation: It is revealed from the Table 2 that with respect to possession/subscription of various mass medias, large majority (98.33%) of the growers possessed television, whereas, 91.66 per cent of growers possessed mobile. Majority (71.66%) of the growers were subscribed to news paper. Magazine and radio were subscribed by 32.50 and 20.83 per cent of the growers respectively. With regard to extent of mass media participation, over three fifth (83.33%) of growers watch entertainment programmes and news in TV regularly, followed by mobile, news paper, radio and magazine with 52.50, 30.00, 3.33 and 2.50 per cent respectively. Majority (73.33%) of the growers watching television for agriculture programmes regularly followed by mobile, news paper magazine and radio with 39.16, 30.83, 5.00 and 2.50 per cent respectively. Over one third (43.33%) of growers were using newspaper for entertainment programs occasionally, followed by mobile, magazine, radio and television with 39.16, 29.16, 16.66 and 15.00 per cent respectively. About 52.50 per cent of growers were using mobile for agriculture programs occasionally, followed by newspaper, magazine, radio and television with 34.16, 28.33, 18.33 and 19.16 per cent respectively. Majority (80.00%) of growers never heard radio for entertainment or news purpose and 68.33 per cent of growers never read magazine for entertainment or news, 26.66 per cent of growers never read newspaper for entertainment or news, 8.33 per cent of growers were never used mobile for entertainment or news and only meager (1.66%) of respondent were not seen television for entertainment. About 77.50 percent of growers never heard radio for agriculture programmes, followed by magazine, newspaper, mobile and television with 66.66, 35.00, 8.33 and 7.50 per cent respectively. The results are in line with Aparna Jaiswal and Patel (2012).

Individual component wise extension participation: It is revealed from the Table 3 that with respect to participation, majority (93.33%) of the growers participated in Krishimela, followed by agriculture exhibitions, training, field visit, field days, group meetings, educational tour and demonstrations with 92.50, 87.50, 74.16, 63.33, 55.00, 41.66 and 38.33 per

cent respectively. With regard to extent of participation, 26.60 per cent of growers regularly participated in trainings and 13.33 percent of growers regularly participated in krishimela. Very meager percent of them participated regularly in other extension activities. About 84.16 percent of growers occasionally participated in agriculture exhibitions, followed by krishimelas, field visit and training with 80.00, 69.16 and 60.83 respectively. Equal per cent (51.66%) of growers participated in field days and group meetings occasionally. As high as 61.66, 58.33 and 45.00 cent of growers never participated in demonstrations, education tour and group meeting respectively. Similar results reported by Aregawi (2014).

Individual component wise information seeking behavior: It is evident from the Table 4 that among the informal sources majority (74.16%) of growers contacted family members frequently for getting information, followed by friends/relatives, neighbors and progressive farmers with 34.16, 25.83 and 10.83 per cent respectively. Whereas, majority (76.66%) of growers contacted progressive farmers occasionally, followed by neighbors, friends/relatives and family members with 70.66, 61.66 and 20.00 per cent respectively. 8.33 percent of growers rarely contacted progressive farmers followed by other informal sources. Among the formal sources majority (74.16%) of growers contacted scientists from agriculture university regularly for getting information, followed by KVK/ AEECS/ UASR, RSK/ KSDA, village panchayat member, Agro input agencies and bank official with 12.50, 11.66, 10.83, 6.66 and 2.50 per cent respectively. Whereas, equal (75.83%) of growers contacted village panchayat member and agro input agencies occasionally, followed by RSK/ KSDA, KVK/ UASR, bank official and scientists from state agriculture university with 69.16, 65.83, 44.16 and 15.00 per cent respectively. 40.16 per cent of growers contacted bank officials rarely followed by other formal sources. Equal percent (11.66%) of growers never contacted village panchayat members and bank officials for getting the information, followed by other formal sources. Among mass media large majority (95.00%) of growers were seeking information from television regularly, followed by news paper, film show, and radio and farm literature with 30.83, 25.83, 3.33 and 2.50 percent respectively. Whereas, 65.00 per cent of growers were seeking information from film shows occasionally, followed by farm literature, news paper, radio and television with 63.33, 20.10, 12.50 and 1.66 per cent respectively. 26.66 per cent of growers seeking information from news paper rarely, followed by other mass media sources. Majority (70.83%) of growers never heard radio for getting information, followed by news paper, farm literature and other mass media sources. The results are in conformity with Archana *et al.* (2014).

Conclusion

The study revealed that more than half (65.00%) of the growers were middle aged, followed by medium farming experience (67.50%), high school education (49.16%) and medium size of land holding (49.16%). All the seed growers had medium socio-economic status with respect to annual income (50.83%), cropping intensity (53.33%), mass media participation (42.50%), extension participation (40.84%), information seeking behaviour (41.66%). still there is a need to expose the farmers to new agricultural technologies and motivate them to adopt the new technologies through PTD,

adaptive trial, series of brain storming sessions, capacity building of farmers about expert system, information management through ICT tools. Majority of the seed growers had high risk orientation (68.33%), followed by achievement motivation (63.33%) and management orientation (61.66%). Hence, the government and private organization should emphasis for up scaling these variables for their advantage in order to improve knowledge level of seed growers and also intensive training programs needs to be conducted by government and nongovernment agencies to improve the socio-economic profile of seed growers.

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REFERENCES

- Alarima, C. I., Adamu, C. O., Masunaga and Wakatsuki, T., 2011, Constraints to sawah rice production system in Nigeria. *J. Hum. Ecol.*, 36(2): 121-130.
- Anitha, B., 2004, A study on entrepreneurial behaviour and market participation of farm women in Bangalore rural district of Karnataka. *M. Sc. (Agri.) Thesis*, Univ. Agric. Sci., Bangalore (India).
- Anonymous 2015, Agricultural Statistics at a Glance, Directorate of Economics and Statistics, Ministry of Agriculture, Government of India.
- AparnaJaiswal and Patel, M. M., 2012, Entrepreneurial behaviour of rural women. *Indian Res. J. Extn.Edu.*, 12(1): 21-26.
- Archana, K. N., Natikar, K. V. and Joshi, S. S., 2014, Entrepreneurial behaviour of commercial seed growers and other farmers.Karnataka. *J. Agric. Sci.*,27(4): (548-550).
- Aregawi, L.M., 2014 Entrepreneurial behaviour of seed growers in Ethiopia. *J. Development and Agric. Econ.*, 3(6), pp, 436-412.
- Bhagyalaxmi, K., Gopalakrishnarao, V. and Reddy, S. M., 2003, Profile of the rural women micro-entrepreneurs. *J. Res.*, 31(4): 51-54.
- Bhople P.P., Bhavani G., Shambharkar B. and PritiTodasam, 2017, International Journal of Scientific Research, 6(1) ,2277–8179.
- Manjunatha, 2011, A study on knowledge and adoption of Bt. cotton recommended production practices followed by the farmers in Raichur district of Karnataka. *M. Sc. (Agri.) Thesis*, Univ. Agric. Sci., Raichur (India).
- Mehta, B. M., Shankar, N. M. and Sonawane, M., 2012, Entrepreneurial behaviour of Mango growers of Valsad district of Gujarath state.*Indian Res. J. Extn.Edu.*,12(1).
- Nagesh, 2006, Study on entrepreneurial behaviour of pomegranate growers in Bagalkot district of Karnataka. *M. Sc. (Agri.) Thesis*, Univ. Agric. Sci., Dharwad (India).
- Ramakrishna, 2012, Impact analysis of demonstration on transplanting method of redgram cultivation in Bidar district of Karnataka state.*M. Sc. (Agri.) Thesis*, Univ. Agric. Sci., Raichur (India).
- Shakya, M. S., Patel, M. M. and Singh,V. B., 2008, Knowledge level of Chickpea growers about Chickpea production technology. *Indian Res. J. Extn.Edu.*,8(2).
- Suresh, 2004, Entrepreneurial behaviour of milk producers in Chittoor district of Andhra Pradesh – A critical study.*M. V. Sc. Thesis*, Acharya N. G. Ranga Agric. Univ., Hyderabad.
