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RESEARCH ARTICLE :

Socio-economic profile and marketing behaviour of sweet potato growers in Belagavi district of Karnataka

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SUMMARY : The present study was conducted in Belagavi district of Northern Karnataka during the year 2018-19 to find out the socio-economic characteristics and marketing behaviour of sweet potato growers. Based on the highest area under cultivation two taluks namely Belagavi and Khanapur were purposively selected and from each taluk, three villages were selected and from each village, twenty sweet potato growers were selected randomly. Thus,the total sample size constitutes 120 respondents for the study. The data were collected using pre tested structured interview schedule personally by researcher. The collected data were analysed using appropriate statistical tools. The results of study revealed that 63.33 per cent of the sweet potato growers were middle age group, 42.50 per cent of the respondents were studied upto middle school. Further, 38.33 per cent of the respondents had semi medium land holding, nearly half (48.33%) of the respondents belonged medium farming experience, nearly two fourth (47.50%) of the respondents had medium economic motivation, slight more than two fifth (42.50%) of the respondents had medium risk orientation and more than half (55.00%) of the sweet potato growers had medium cosmopoliteness. In marketing behaviour, 50.00 per cent of the respondents get marketing information from others who visit the market, majority (84.17%) of the respondents transport their produce through minitempo, cent per cent sell their produce immediately after harvest, nearly three forth (88.33%) of the respondents sell their produce to commission agent and cent per cent sell their produce at APMC, more than two third (70.83%) of the respondents said middlemen involvement was higher extent, slight more than three fourth (76.67%) of the respondents determined their price through open auction, Three fifth (60.83%) of the respondents take self-decision for selling their produce and cent per cent of the respondents get delayed payment for their produce.

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BACKGROUND AND OBJECTIVES

Sweet potato [*Ipomoea batatas* (L.) Lam] is a herbaceous, warm-weather creeping plant originated from South America belonging to the family *Convolvulaceae* and genus *Ipomoea* which is a storage root plant (Woolfe, 1992). After wheat, rice, maize,

potato, barley and cassava, it remains the seventh most important food crop.- with over 105 hundred tonnes of million metrics of foodstuffs in the globe annually (FAO, 2011).

Sweet potato is an important tuber crop in India that plays a crucial role in agriculture, food and nutritional security of poor farmers (Nedunchezhiyan, 2015). Even though it is cultivated in almost all the states but major involvement comes from four states namely Odisha, Uttar Pradesh, Kerala and West Bengal. Odisha is India's biggest sweet potato producer. It adds to one-third of India's total output (Campilan *et al.*, 2009). The region under Indian sweet potato cultivation is 0.13 million ha with 1.47 million tons of production (FAOSTAT, 2016).

Marketing of sweet potato is very complex, as most of the sweet potato growers are illiterate, unorganized and dispersed. They don't have knowledge and skill of selling their produce and enforced to sell their produce instantly after the harvest at low prices. Therefore, many times sweet potato growers have resort to distress sale due to uncertain situation in market. With this context, the present study was undertaken with the objective to study socio-economic characteristics and marketing behaviour of sweet potato growers in Belagavi district of Karnataka.

RESOURCES AND METHODS

In the present investigation, *Ex-post facto* research design was used. This design was considered appropriate because the phenomenon has already occurred. The present study was conducted in Belagavi district of Karnataka state considering the highest area under sweet potato cultivation. About 95 per cent area under sweet potato cultivation in Karnataka was confined mainly in two taluks namely, Belagavi and Khanapur and hence, these two taluks were selected. From each taluk three villages were selected and from each village 20 sweet potato growers were selected randomly. Thus, constituting a total of 120 respondents. Appropriate statistical tools were used to analyse the data.

OBSERVATIONS AND ANALYSIS

The findings of the present study as well as relevant discussion have been summerized under following heads:

Socio-economic characteristics of sweet potato growers:

Age:

A cursory look into data in Table 1 revealed that 63.33 per cent of the farmers belonged to middle age category. Whereas, one fifth (20.00%) of the farmers and 16.67 per cent of the farmers belonged to old and young age category, respectively.The probable reason for majority of farmers to be in middle age category might be that usually farmers of middle age were enthusiastic to adopt the new technologies and had more work efficiency than the older and younger ones. Further, individuals of 35 to 50 years of age group had more physical vigour and had more family responsibility than the younger ones. It could also be that youth were less interested in agriculture and were more attracted to non-farm occupations. These results were in line with the findings of Sabi (2012).

Education:

The data in the Table 1 shows that slightly above the two fifth (42.50%) of farmers had middle school education, followed by 26.67 per cent of the farmers had primary school education. Further 13.33 per cent of the farmers studied upto high school and 9.17 per cent of the farmers were illiterates and hardly (6.66%) studied upto PUC. The data also indicates that only 1.67 per cent of the farmers studied upto graduation. The results could be attributed to the availability of free basic education and the educational infrastructure in the study area. Majority of people in villages have understood the significance of education and noticed that education isn't only to eliminate poverty but also for diverse social, economic, cultural and political motives. Hence, more than two fifth (42.50%) of the sweet potato growers are educated at least upto middle school. The results were in agreement with the findings of the studies reported by Mbanaso *et al.* (2012).

Land holding:

The results in the Table 1 also revealed that 38.33 per cent farmers belonged to semi medium land holding category, followed by 26.67 per cent and 17.50 per cent of the farmers belonged to small and marginal land holdings, respectively. While remaining respondents were medium (14.17 %) and big (3.33%) land holdings category. This could be attributed to inheritance of land

from their ancestors which had transferred from generation to generation. Fragmentation of land may the reason of considerable per cent of the farmers were of semi medium landing holding category. Therefore, most of the farmers were found in semi medium and small land holding category followed by medium farmers. An application of conversion factor of one acre of irrigated land equivalent to 3 acres of dry land led to increases in size of land holding.The results were in line with the findings of Dharma (2014).

Table 1: Socio-economic characteristics of sweet potato growers **(n=120)**

Sr. No.	Category	Frequency	Per cent
1.	**Age**		
	Young (<31 years)	20	16.66
	Middle (31-50 years)	76	63.33
	Old (>50 years)	24	20.00
2.	**Education**		
	Illiterate	11	9.17
	Primary (1^{st} to 4^{th})	32	26.67
	Middle school (5^{Th} to 7^{th})	51	42.50
	High School (8^{th} to 10^{th})	16	13.33
	PUC	8	06.66
	Graduation	2	01.67
3.	**Land holding**		
	Marginal (<2.50 acre)	21	17.50
	Small (2.51-5.00 acre)	32	26.67
	Semi medium (5.01-10.00 acre)	46	38.33
	Medium (10.01-25.00 acre)	17	14.17
	Big (>25.00 acre)	4	03.33
4.	**Farming experience**		
	Low (upto 10years)	20	16.67
	Medium (11 to 20years)	58	48.33
	High (21 and above)	42	35.00
	Mean=30.35 SD=12.66		
5.	**Economic motivation**		
	Low (<21.28)	22	18.33
	Medium (21.29-23.01)	57	47.50
	High (>23.02)	41	34.17
	Mean=22.15 SD=2.04		
6.	**Risk orientation**		
	Low (<20.56)	28	23.33
	Medium (20.57-24.40)	51	42.50
	High (>24.41)	41	34.17
	Mean=22.48 SD=4.53		
7.	**Cosmopoliteness**		
	Low (<6.45)	37	30.83
	Medium (6.45-7.09)	66	55.00
	High (>7.09)	17	14.17
	Mean=6.77 SD=0.76		

Farming experience:

A perusal of results presented in Table 1 that 48.33 per cent of the farmers had medium farming experience, followed by 35.00 per cent of the farmers had high farming experience and 16.67 per cent had low farming experience. The outcomes occurred due to the farming which is practiced from their ancestors and more than three fifth (63.33%) of the sweet potato growers were middle and old aged (20.00%) and they might have started farming in their early age itself. Hence, more number of sweet potato growers had medium to high farming experience. The present findings had support with findings of Bharath *et al.* (2014).

Economic motivation:

It could be seen from the Table 1 that, nearly two-fourth (47.50%) of the respondents had medium level of economic motivation, whereas slightly above one third (34.16%) of them had high level of economic motivation and nearly one fifth (18.33%) of them had low level of economic motivation.The reason for medium economic motivation of the sweet potato growers might be high returns from sweet potato cultivation to improve their standard of living.So their main motive was to produce a better quality produce from available land by adopting the recommended cultivation practices. Similar results were observed in the study conducted by Ashokkumar (2011).

Risk orientation:

It could be understood from the Table 1 that above two fifth (42.50%) of respondents had medium level of risk orientation, followed by high (34.17%) and low (23.33%) levels of risk orientation. As most of the sweet potato growers are literate, they know both the pros and cons of taking the risk and also due to the reason might be that there is propensity in farmers to take risk based on their income level, land holding but erratic rainfall pattern, price fluctuation and labour problem leads the farmer to take medium risk.These outcomes were similar to reports of Rituraj *et al.* (2015).

Cosmopoliteness:

It could be observed from the Table 1 that more than half (55.00%) of the respondents belonged to medium cosmopoliteness category followed by low (30.83 %) and high (14.17%) category. This might be due to fact that market information is easily available for them from others who visit the city regularly and many visit only for their domestic or personal purposes. This made them to fall under medium level of cosmopoliteness. These results are in line with the outcomes of Mahatabali (2010).

Table 2 : Marketing behaviour of sweet potato growers **(n=120)**

Sr. No	Components	Frequency	Per cent
1.	**Source of information**		
	Mobile (SMS and Call)	38	31.66
	Internet	6	05.00
	Personally visiting market	16	13.33
	Others who visit the market	60	50.00
2.	**Mode of transport**		
	Mini tempo	101	84.17
	Tractor	19	15.83
3.	**Time of selling**		
	Selling after the harvest if the prices are favourable	0	0.00
	Selling immediately after harvest	120	100
	Reasons for selling immediately		
	Highly perishable in nature	74	61.67
	No cold storage facilities available	31	25.83
	Financial urgency	10	08.33
	To get profit	5	04.17

Marketing behaviour of sweet potato growers:

Source of information:

The results presented in the Table 2 indicated that exactly half (50.00%) of the farmers approached others who visited market for information followed mobile (31.67%) and only 13.33 per cent personally visited market for obtaining market information. The possible reason for this might be due to friendly nature among the farmers in the village and the progressive farmers, friends, relatives and neighbours still were considered most credible source of information and innovations. The results get the support of findings of Chandrashekar (2007).

Mode of transport:

It can be inferred from Table 2 that, majority (84.17%) of the respondents transported their produce to the markets through mini tempo, followed by tractor (15.83%). This is because considerable portion of the farmers not owned vehicle and they depend on hired vehicle and also volume of produce is high and markets were far away. The outcomes are in conformity with the results of Rihanmalik (2018).

Time and reasons for selling:

Cent per cent of the respondents sold their produce immediately after harvest. The data further indicated the

Table 3 : Mode and reasons for selling sweet potato to particular agency by farmers **(n=120)**

Sr. No.	Reasons	Mode			
		Village merchants (n=14)		Commission agent (n=106)	
		f	%	F	%
1.	Better price for produce	9	7.50	12	10
2.	Guaranteed cash payment for the produce	5	4.16	88	73.33
3.	Low market cost	-	-	6	5.00
	Total	14	11.67	106	88.33%

f = Frequency, % =Percentage

Table 4 : Reasons for selling sweet potato to particular place (APMC) by farmers **(n=120)**

Sr. No.	Reasons	Place (APMC)	
		Frequency	Percentage
1.	Nearness of the market	58	48.33
2.	Better price for their produce	46	38.33
3.	Well established market	16	13.33

Table 5 : Factors influencing the sweet potato growers in marketing of the produce **(n=120)**

Sr. No.	Factors	Frequency	Percentage
1.	**Extent of involvement of middlemen**		
	Higher extent	85	70.83
	Lower extent	35	29.17
2.	**Price determination**		
	Open auction	92	76.67
	Mutual negotiation	28	23.33
3.	**Decision of selling**		
	Self-decision	73	60.83
	Friends and relatives	28	23.33
	Progressive farmers	12	10.00
	Market officials	7	5.83
4.	**Mode of payment**		
	Advance payment	0	0.00
	Spot payment	0	0.00
	Delayed payment	120	100

reasons for selling immediately were highly perishable nature of produce (61.67%), followed by lack of cold storage facilities available (25.83%), financial urgency (8.33%) and very negligible 4.17 per cent of farmers sold the produce to get profit. Similar results were observed in a study conducted by Chandrashekar (2007).

Mode and reasons for selling sweet potato to particular agency by farmers:

A perusal of results in the Table 3 infers that majority (88.33 %) of the respondents sold their produce to commission agents followed by 11.67 per cent of the them sold their produce to the village merchants.

Further, the data reveals the reasons for selling sweet potato to particular agency that, among the farmers who sold their produce to commission agents, slightly more than three fourth (73.33 %) of the farmers sold to commission agent because of guaranteed cash payment for produce, while 7.50 per cent of the farmers sold to village merchant due to reason of better price for produce, and only (5.00%) sold to commission agent because of reason that low market cost for their produce. The results are in line with the findings of Raghavendra (2005).

Reason of selling to particular place (APMC) by the sweet potato growers:

A bird view of the Table 4 highlights that, cent per cent of the farmers sold the produce at APMC as the major venue for marketing of sweet potato. While, none of the respondents sold their produce at local or in other market.

The result further indicates the reason for selling at APMC. Nearly half (48.33%) of the respondents sold at APMC because of nearness of the market, followed by nearly two fifth (38.34%) of sold at APMC for getting better price and only 13.33 per cent sold their produce to APMC because APMC's are well-established in their area and there was no other option for them. Results of present study was in line with the results of Ashokkumar (2011).

Factors influencing the sweet potato growers in marketing of the produce:

The Table 5 revealed that, involvement of middle men was higher extent (70.83%), price of produce was determined in the open auction (76.67%), the sole reason behind this was a great majority sold their produce to commission agents at APMC.

Table 5 also indicated that sweet potato growers took self-decision (60.83%) to sell their produce followed by decision of friends and relatives (23.34%). The possible reason for counselled with friends and relatives might be that informal nature, frequent interaction and easy access.

It can also enunciate from the Table 5 that, cent per cent of the respondents get a delayed payment for their produce. While none of the farmers get neither spot payment nor advance payment. Probable reason behind is commission agents wait for the complete sale of their produce and they make payment only after money comes in their hand. Present findings had support with the results of Ashokkumar (2011) and Rihanmalik (2018).

Conclusion:

It is clear from the study that, majority of sweet potato growers belonged to middle age, had education upto middle school with semi medium land holding and medium farming experience. Nearly fifty per cent of the sweet potato growers had medium level of economic motivation, risk orientation and cosmopoliteness. Further the study also revealed as they are medium to low cosmopolite get information from others who frequently visit market, cent per cent sold their produce at APMC and immediately after the harvest because of perishable nature of produce. There is no warehouse or storage facilities even at APMC, this force them to go for distress sale and involvement of middlemen in higher extent. Thus, there is a need to create the facilities at APMC to overcome the problems and sweet potato growers should be trained in collecting the market information from formal sources.

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