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Influence of social aspects on vegetables growers in north Gujarat

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ABSTRACT

The present investigation was undertaken with a view to study social aspects and Farm structure *viz*. Composition of family, Educational status, association with organization, average size-operational size of selected farmers and Irrigation facilities of selected vegetable growers of north Gujarat. The districts, talukas and villages from the study area were chosen purposively by adopting multi-stage sampling technique. The sample of 96 tomato and brinjal growers of each from 16 villages were selected from Mehsana and Sabarkantha districts at random. On an average, the size of family for tomato and brinjal growers was 5.53 and 5.62, operational size holding of tomato and brinjal growers was 2.74 and 2.66 hectares, and average area under tomato and brinjal was 0.62 and 0.64 hectares, respectively.

Key words : Vegetable growers, social aspects

The vegetables have vital place in vegetarian diet. In terms of income, the vegetables give four times more returns as compared to food crops (Shrivastava, 1997). Moreover, they can be grown round the year and provide regular flow of income and employment.

Scenario of area and production

India is the second largest producer of vegetables in the world after China contributing about 8.00 per cent (9.60 Million Tonnes). (Anonymous, 2008). Among all the vegetables producing states, Gujarat occupies third position in respect to area and stands fourth in production. The state of Gujarat contributes about 10.00 per cent area as well as total production of vegetables in India. The share of north Gujarat districts *viz*., Banaskantha, Sabarkantha, Gandhinagar, Mehsana, Kachchh and Patan in vegetable area and production of state was about 28.00 and 33.00 per cent, respectively. Considering the share of tomato 10.10 and brinjal 10.29 per cent to total vegetable area of north Gujarat (Anonymous, 2006-07 and Anonymous, 2007-08). The Study was conducted with following objectives:

1 To study the socio-economic characteristics of selected farmers in study area
2 To study the farm structures and facilities of selected farmers in study area

METHODOLOGY

In order to justify the objectives, a multi-stage sampling technique was adopted. In the first stage Mehsana and Sabarkantha districts were chosen purposively on the basis of maximum vegetable area and at the subsequent stages, talukas and villages were chosen. Finally, from each selected village, 12 vegetable growers were selected at random. Considering the financial and time constraints of researchers, 16 villages (eight of tomato and eight of brinjal) were selected for the detailed study. Thus, in all 96 tomato and 96 brinjal growers comprising of 32 small, 32 medium and 32 large farms for each

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vegetable were selected. The study was pertaining on the basis of primary data collected from the selected vegetable growers during the agricultural year 2007-08.

RESULTS AND DISCUSSION

The results derived from the analysis of the data related to the various aspects of the present study are critically discussed here. The results and interpretation are depicted under the following heads.

Composition of family

The details regarding the composition of vegetable growers' family are given in the Table 1. The data in Table 1 reveal that the average size of family was 5.53 and 5.62 for tomato and brinjal farms and 40.40 and 47.74 per cent of tomato and brinjal cultivators were in labour force, respectively in case of large categories farmers. This is because of more land with them. Moreover, it seems that family size and labour was higher in brinjal farms as compared to tomato farms.

Educational status

Educational level of head of family is supposed to play a pivotal role in adoption of new innovation in vegetable cultivation. It can be observed from the Table 2 that about 89.60 and 89.93 per cent of sampled tomato and brinjal cultivators, respectively were literates. The remaining 10.40 and 10.07 per cent of tomato and brinjal growers, respectively were illiterates. Literacy percentage was the highest on large farms (93.75 %) both in case of tomato and brinjal growers and the lowest on small farms in case of tomato (84.37 %) and brinjal farms (84.38 %).

Further, about 12.51, 34.38 and 42.71 per cent of tomato cultivators had primary, secondary and college education, while in case of brinjal cultivators, it was 13.54, 31.25 and 44.79 per cent, respectively. The college level education was comparatively higher among the large sized cultivators as compared to other category of farms. The results of Jadav (2007) are in line to these results.

Association with organizations

Farmers' association with village level organizations is an indication of their widened horizons. Table 3 gives an account of their association with different organizations. Table 3 indicates that large sized tomato cultivators had higher participation in service co-operative society while, medium, sized cultivators had higher participation in service co-operative society, village *Panchayat* and milk co-operative society. On an average, 52.08 per cent tomato cultivators were the members of milk co-operative society, 12.50 per cent of village *Panchayat* and 18.75 per cent of service co-operative society. The data regarding brinjal growers showed that on an average service co-operative, milk co-operative society and village *Panchayat* was 15.63, 45.83 and 13.54 per cent ,respectively. The results are confined with the work of Parmar (2009).

Table 1 Composition of family

Sr. No.	Category of farms	Average size of family	Percentage of family member	
			In labour force	Literate
Tomato farms				
1	Small	5.32	35.11	85.15
2	Medium	5.50	38.23	89.25
3	Large	5.71	40.40	94.40
4	All farms	5.53	37.91	89.60
Brinjal farms				
1	Small	5.36	48.18	86.30
2	Medium	5.48	15.35	89.90
3	Large	6.01	47.74	93.60
4	All farms	5.62	47.09	89.93

Table 2 Educational level of head of family

Sr. No.	Category of farms	Level of education					
		Illiterate	Literate	Primary (1-7)	Secondary (8-12)	College	Total
Tomato farms							
1.	Small	5 (15.63)	27(84.37)	6(18.75)	10(31.25)	11(34.37)	32(100.00)
2.	Medium	3 (9.38)	29(90.62)	4(12.50)	12(37.50)	13(40.62)	32(100.00)
3.	Large	2 (6.25)	30(93.75)	2(6.25)	11(34.38)	17(53.12)	32(100.00)
4.	All farms	10 (10.40)	86(89.60)	12(12.51)	33(34.38)	41(42.71)	96(100.00)
Brinjal farms							
1.	Small	5 (15.62)	27(84.38)	5(15.62)	11(34.38)	11(34.38)	32(100.00)
2.	Medium	3 (9.37)	29(90.63)	5(15.62)	10(31.26)	14(43.75)	32(100.00)
3.	Large	2 (6.25)	30(93.75)	3(9.37)	9(28.13)	18(56.25)	32(100.00)
4.	All farms	10 (10.07)	22(89.93)	13(13.54)	30(31.25)	43(44.79)	96(100.00)

Figures in parentheses indicate percentage to total.

Table 3 Association with organizations

Category of farms	Organization		
	Service co-operative society	Milk co-operative society	Village *Panchayat*
Tomato farms			
Small	4 (12.50)	16 (50.00)	3 (9.38)
Medium	6 (18.75)	18 (56.25)	5 (15.63)
Large	8 (25.00)	16 (50.00)	4 (12.50)
All farms	18 (18.75)	50 (52.08)	12 (12.50)
Brinjal farms			
Small	3 (9.38)	14 (43.75)	2 (6.25)
Medium	4 (12.50)	15 (46.88)	6 (18.75)
Large	8 (25.00)	15 (46.88)	5 (15.63)
All farms	15 (15.63)	44 (45.83)	13 (13.54)

Figures in parentheses indicate percentage to total farms in each category.

The Table 4 indicate that average size of land holding of tomato growers were estimated about 2.74 hectares. The small, medium and large farmers having 1.05, 2.81 and 4.37 ha of operational size of farms, respectively. On an average, 22.63 per cent of the cultivated land with a farmer was under tomato crop. The average area under tomato cultivation increased with the size of farm. The overall average area under tomato cultivation was ranged from 0.36 to 1.02 ha.

Average size and operational size of farmers selected in North Gujarat

Similarly, in case of brinjal on an average 24.06 per cent of the cultivated land with a farmer was under brinjal crop. The average area under brinjal cultivation increased with the size of farm. The overall average area under brinjal cultivation was ranged from 0.34 to 1.10 hectare. The results were in accordance with the work done by Sadhu (2009) and Parmar (2009).

Table 4 Average size and operational size

Category	Average number of family member	Operational size of farms (ha)	Average area under crop (ha)	Per head area under crop (ha)	Per cent to total area under crop
Tomato farms					
Small	5.32	1.05	0.36	0.07	34.29
Medium	5.50	2.81	0.49	0.09	17.44
Large	5.72	4.37	1.02	0.18	23.34
All farms	5.53	2.74	0.62	0.11	22.63
Brinjal farms					
Small	5.36	1.04	0.34	0.06	32.69
Medium	5.48	2.62	0.48	0.09	18.32
Large	6.01	4.32	1.10	0.18	25.46
All farms	5.62	2.66	0.64	0.11	24.06

Table 5 Source wise distribution of irrigated area

Category of farms	Irrigated area per farm	Irrigated area as % to net sown area	Proportion of irrigated area under different sources (%)			
			Open well	Tube well	Canal	Total
Tomato farms						
Small	1.02	97.12	8.75	86.75	4.50	100.0
Medium	2.54	90.39	9.54	86.91	3.55	100.0
Large	4.37	100.00	8.52	87.23	4.25	100.0
All farms	2.64	96.15	8.94	86.96	4.10	100.0
Brinjal farms						
Small	1.01	95.28	8.52	85.98	5.50	100.0
Medium	2.19	83.72	8.50	86.65	4.85	100.0
Large	4.12	95.35	9.25	85.85	4.90	100.0
All farms	2.45	92.00	8.76	86.16	5.08	100.0

Irrigation facilities

The source-wise irrigated area to total irrigated area per farm on the selected farms are given in Table 5. The data revealed that, in case of tomato farms, about 96.00 per cent of net sown area was under irrigation. Further, it was observed that among the different sources of irrigation, tube-well was the main source of irrigation on the sample farms, accounting for 86.96 per cent, followed by open well 8.94 and canal 4.10. Irrigation by tube-well was the highest (87.23 %) on large farms and the lowest (86.75 %) on small farms. In case of brinjal farms, about 92.00 per cent of net sown area was under irrigation. Proportion of irrigated area varied from 83.72 per cent on medium farms to 95.35 per cent on large farms. Further, it was observed that among different sources of irrigation, tube-well was the main source (86.16 %) of irrigation as noticed in case of tomato farms. Open well and canal accounted for 8.76 per cent and 5.08 per cent, respectively. Thus, both tomato as well as brinjal farms have good irrigation facilities. Further, the main source of irrigation on both type of vegetables farms was tube-well. The results are confined with the work of Parmar (2009).

CONCLUSION

The vegetables have vital role in balanced diet, provide regular income and employment throughout the year. They also provide a better opportunity for improving socio-economic status of farmers in general and small farmers in particular. The average size of family, literacy rate and labour in force was higher in brinjal farms than tomato farms. Whereas, the association with organization was higher in

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