

Constraints of Vegetable Growers in North Gujarat

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ABSTRACT

The present investigation was undertaken with a view to study constraints faced by tomato and brinjal vegetable growers of North Gujarat. The major production constraints faced by the vegetable growers were higher production cost, plant protection and higher prices of insecticides/ pesticides. In marketing of vegetables, growers opined the problems of higher price fluctuations and lack of transportation facilities. Small farmers had the problems of credit facility and lack of information about high yielding variety for the production of vegetables. Further, they faced the problem of lack of marketing information and lack of co-operative marketing societies as the major marketing constraints.

Key words: Tomato, Brinjal, Marketing, Constaints,

INTRODUCTION

India is a country with varied agro-climatic conditions having total geographical area of 328.27 million hectares. The reported area of land utilization is 304.83 million hectares and the total cropped area is 180.11 million hectares (59.00 % of reported area). 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. In India, the *per capita* availability of vegetables is only 135 g day⁻¹ against the ICMR recommended quantity of 285 g *per capita* day⁻¹ (Wadhvani and Bhogal, 2003).

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) of the world production from an area of about 6 million hectares. The major vegetables producing countries in the world are China, India, Nigeria, United States, Turkey and Russian Federal. India occupies first position in production of cauliflower, second in onion and third in cabbage and brinjal production in the world. Like

potato, onion and brinjal are the major vegetables available around the year. West Bengal, Uttar Pradesh, Bihar, Orissa, Maharashtra, Karnataka and Gujarat are the important vegetables producing states in the country. Among all the vegetables producing states, Gujarat occupies 3rd position in respect to area and stands 4th in production.

The state of Gujarat contributes about 10.00 per cent area as well as total production of vegetables in India. Among various districts of North Gujarat, the highest vegetable production is recorded by Banaskantha (17.67 %), followed by Sabarkantha, Gandhinagar, Mehsana, Kachchh and Patan. 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. The cultivation of vegetables is largely confined to the districts of Sabarkantha and Mehsana, which together account for about 9.00 per cent of the total vegetable area of the state.

Considering the share of vegetables area in the state as well as in the North Gujarat, the present study was restricted to Mehsana and Sabarkantha districts of North Gujarat only. The major vegetables grown in the area are potato, brinjal, cauliflower, tomato, cabbage, chilies and cluster bean. Among

these, tomato contributes 10.10 per cent and brinjal 10.29 per cent to total vegetable area of North Gujarat and thus occupy important place in vegetable production.

Tomato is used to produce most popular value added products *viz.*, tomato ketchup, tomato puree, tomato chutney and tomato sauce. While, brinjal is considered as the poor man's crop, used as a cooked vegetable, pickle making, dehydration industry and also used as medicinal purposes.

Rational of the problem

Horticultural crops have been identified as most remunerative crops for replacing subsistence farming in varied agro-eco-systems in our country. Its importance can very well be appreciated in terms of their rising domestic demand, export potential, large employment needs in rural areas particularly for the marginal and small farmers growing trust on commercialization and diversification of farm sector because of their high profitability (Wadhvani and Bhogal, 2001).

Efforts have been made by various researchers to focus on cost of production and marketing of vegetables in the state of Gujarat. Notably of them are by Shiyani *et al.* (1998), Singh *et al.* (1993) and Parmar *et al.* (1994). However, the comprehensive studies on constraints for prominent vegetable growing North Gujarat Agro-climatic Zone are very scanty. Hence, the present study entitled "Constraints of Vegetables Growers in North Gujarat" was planned.

OBJECTIVES

- 1 To identify production constraints for selected vegetables in North Gujarat
- 2 To identify marketing constraints for selected vegetables in North Gujarat

METHODOLOGY

The state of Gujarat comprises of 25 districts. Among these, Banaskantha, Gandhinagar, Kachchh, Mehsana, Patan and Sabarkantha are covered under North Gujarat Agro-climatic Zone. Among the six districts of North Gujarat, Mehsana and Sabarkantha districts have been selected purposively

Identification of major vegetables

Three Taluka Vijapur and Kadi talukas from

Mehsana district and Idar taluka from Sabarkantha district were chosen for tomato.

For brinjal, Mehsana taluka (15.28 %) and Vijapur taluka (17.11 %) of Mehsana district and Idar (7.64 %) talukas of Sabarkantha district were considered for the present study. Considering the financial and time constraints of researchers, 16 villages were selected for the detailed study. Total eight villages selected for tomato, three villages were from Kadi taluka and three villages from Vijapur of Mehsana district, two from Idar taluka of Sabarkantha district. In case of brinjal eight villages were chosen for the study. Among these, three villages from Mehsana taluka, three from Vijapur taluka of Mehsana district and two from Idar taluka of Sabarkantha district. Thus total

A list of all vegetable growing villages of the each of the selected taluka for each of the selected vegetable was prepared. Again from the list, the villages having the highest area under selected vegetables were considered for the study. In all 16 villages chosen from six talukas of North Gujarat.

Selection of respondents

A list of cultivators growing vegetables for each selected village was prepared and arranged in ascending order according to size of their operational holdings. They were classified into three groups, more than one hectare to two hectares (small), more than two hectares to four hectares (medium), and above four hectares (large). Considering the size of population and resources, 12 cultivators were chosen from each selected village at random in proportion to number of farms in each size group. Thus, in all 96 tomato growers comprising of 32 small, 32 medium and 32 large farms were selected for the study.

Sources of data

The data regarding constraints faced by cultivators during production and marketing were collected by interviewing vegetable growers. Further, the data on disposal pattern of total output, marketable and marketed surplus, farm harvest prices and marketing expenditure were also collected from the respective respondents. For this purpose a specially designed schedule was used.

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 segments.

Production and marketing constraints in tomato and brinjal crops

Tomato

Due to perishable and bulky nature of selected vegetables, there might be number of constraints opined by the sample tomato growers in adoption of tomato production technology and marketing.

The tomato growers were asked to state the production and marketing related constraints faced by them. Their responses were collected and intensity of particular constraint was computed by calculating percentage according to their frequency and they were assigned rank on the basis of percentage as presented in Table 1.

It is observed from table that the higher production

expenditure (84.00 %), higher prices of plant protection materials (63.10 %), lack of information about high yielding varieties (60.40 %), lack of credit to meet the need higher variable cost (58.00 %) and unavailability of labour as and when needed (58.37 %) were the major constraints encountered by the sampled farmers.

Higher production expenditure (88.00 %), high price of plant protection materials (58.10 %), lack of credit (63.00 %) and lack of information about high yielding varieties (68.10 %) were the major production constraints experienced by the small farmers. In case of medium and large category of farmers, the major constraints of production of tomato as explained by them were higher production expenditure (88.00 and 85.00 %), unavailability of labour as and when needed (50.00 and 80.11 %), higher prices of plant protection materials (60.50 and 70.70 %) and lack of information about high yielding variety (64.00 and 49.10 %).

Table 1: Production and Marketing Constrains in Tomato (per cent)

n=96

Sr.No.	Problem/Constraints	Small	Medium	Large	Average
Related to Production					
1	Lack of information about high yielding varieties	68.10	64.00	49.10	60.40
2	plant protection problems	42.00	40.10	32.65	38.25
3	Higher prices of insecticide/ pesticide	58.10	60.50	70.70	63.10
4	Lack of credit	63.00	60.00	51.00	58.00
5	Lack of irrigation facility	51.00	48.50	38.95	46.15
6	Un availability of labour when needed	45.00	50.00	80.11	58.37
7	Higher labour charges	15.00	17.00	26.05	19.35
8	Higher production expenditure	88.00	85.00	79.00	84.00
9	Lack of timely availability of fertilizer	6.00	5.50	4.49	5.33
10	In adequate and irregular electric supply	4.60	7.00	12.76	8.12
11	Problems of pigs and blue bull	18.00	22.00	29.99	23.33
Related to Marketing					
1	Lack of marketing information	64.00	60.00	44.66	56.22
2	Lack of transportation	28.00	33.00	36.50	32.50
3	Higher margin of middlemen	32.00	26.10	26.65	28.25
4	Lack of labour for transportation	54.10	53.00	49.19	52.10
5	Malpractices in weigh	18.00	20.10	19.95	19.35
6	Spoilage	58.00	54.50	52.95	55.15
7	Higher price fluctuations	87.80	90.00	96.10	91.30

Thus, it can be inferred from the above discussion that tomato farmers faced the problems of higher production expenditure due to higher expenses of *mandap* and high labour wages.

So far marketing constraints were concerned more than 90.00 per cent tomato cultivators felt the problem of

higher price fluctuations. It might be due to perishable nature and seasonal production of tomato. Other major marketing problems faced by the tomato growers on overall basis were lack of marketing information (56.22 %) and non-availability of labour for transportation (52.10 %). In addition to these, they also faced the problems of lack of transportation facilities, malpractices in weigh and spoilage.

Further, the results indicated that higher price fluctuation (87.80 and 90.00 %), spoilage (58.00 and 54.50 %) and lack of marketing information (64.00 and 60.00 %) were the major marketing constraints realized by small and medium farmers, respectively.

Problem of higher price fluctuations (96.10 %) lack of labour for transportation (49.19 %) and low prices due to spoilage (52.95 %) were the major marketing constraints faced by large sized farmers.

Thus, it can be concluded that majority of small and medium farmers faced the problem of high fluctuations in prices of tomato. It was due to lack of market intelligence by marketing agencies for tomato. Lack of labour for transportation and higher price fluctuations were found major

constrains on large farms.

The results of this study are in corroboration with the findings of Parmar *et al.* (1994) and Bilonikar *et al.* (1998).

Brinjal

The production and marketing constrains faced by the brinjal growers are given in Table 2. It is apparent from the table that constraints regarding plant protection (68.00 %) lack of information about high yielding variety (63.00 %), higher prices of insecticides and pesticides (59.50 %), lack of credit (64.00 %) and higher production expenditure (79.00 %) were the major production constraints as reported by the small farmers.

Table 2: Production and Marketing Constraints in brinjal (per cent)

n=96

Sr. No.	Constraints	Small	Medium	Large	Average
Related to Production					
1	Lack of information about high yielding variety	63.00	62.00	49.00	58.00
2	plant protection problems	68.00	66.50	60.50	65.00
3	Higher prices of insecticide/ pesticide	59.50	63.70	87.10	70.10
4	Lack of credit	66.00	60.15	33.60	53.25
5	Lack of irrigation facility	53.00	49.00	28.50	43.50
6	Un availability of labour when needed	38.00	42.00	56.80	45.60
7	Higher labour charges	40.00	42.00	56.75	46.25
8	Higher production expenditure	79.00	72.50	53.70	68.40
9	Lack of timely availability of fertilizer	4.00	3.00	0.50	2.50
10	In adequate and irregular electric supply	2.00	2.50	13.89	6.13
11	Problems of pigs and blue bull	14.50	16.70	29.10	20.10
Related to Marketing					
1	Lack of marketing information	68.50	62.30	58.65	63.15
2	Lack of transportation	85.15	63.50	80.10	76.25
3	Lack co-operative marketing	72.00	66.50	53.80	64.10
4	Higher margin of middlemen	33.10	25.50	15.00	24.53
5	Lack of labour for transportation	28.00	32.00	54.30	38.10
6	Malpractices in weigh	72.00	68.00	58.50	66.17
7	Spoilage	13.00	15.00	17.00	15.00
8	Higher price fluctuations	53.00	49.00	47.00	49.67

So far as medium farmers is concerned, they opined about high production expenditure (72.50 %) followed by plant protection problem (66.50 %). In case of large farmers, about 87.10 per cent encountered the problem of high prices of pesticides followed by plant protection problems (60.50 %).

As far as pooled analysis of production constraints is concerned, majority of the brinjal growing farmers faced the higher prices of pesticides (70.10 %). The second major problem was higher production expenditure (68.40 %). In addition to these, growers also faced the problems like lack of plant protection problems (65.00 %).

Thus, it can be inferred that irrespective farm size, higher price of pesticides constraint ranked first because more pesticides are used in brinjal due to the infestation of diseases and pests.

The whole the most important constraints in brinjal marketing were, lack of transportation facilities (76.25 %), mal practices in weigh (66.17 %) and lack of co-operative marketing societies (64.10 %) constraints faced by growers in marketing of brinjal.

Further, the results revealed that, majority of the small (85.00 %) and large (80.10 %) farmers faced the problem of transportation facilities in the marketing of brinjal. The major constraint faced by medium farmers was malpractices in weigh (68.00 %).

Thus, it can be concluded from the preceding discussion that irrespective of size of land holdings of brinjal growers, most of them faced the problems of lack of marketing information, lack of transportation and higher price fluctuations in marketing of brinjal. This might be due to lack of market intelligence particularly for vegetables like brinjal by marketing agencies, lack of co-operatives and highly perishable nature of the produce.

CONCLUSION

India is the largest producers of vegetables in the world, contributing 8.00 per cent of the world production from 6 million hectares of area. The vegetables have vital role in balanced diet, provide regular income and employment throughout the year. They also provide a better opportunity for diversification and help in improving productivity of fragmented land, improving socio-economic status of farmers in general and small farmers in particular.

The state of Gujarat contributes about 10.00 per cent of area as well as production of vegetables and occupies 3rd position in respect to area and stands 4th in production in the country. Among the various districts of Gujarat, the share of area and production of vegetables of North Gujarat districts was about 28.00 and 33.00 per cent, respectively. Hence, the present study concluded that :

- 1 Higher production cost, plant protection and higher prices of insecticide/pesticides were the major problem faced by the vegetable growers.
- 2 So far marketing of vegetable is concerned, vegetable growers faced the problems of higher price fluctuations and lack of transportation facilities. Low prices due to small quantity, lack of marketing information and lack of co-operative marketing were the major marketing constraints faced by marginal and small farmers in North Gujarat.

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