

RESEARCH PAPER

Comparative economics of yields, market prices and returns of organic tomato production with that of inorganic tomato production in Kolar district of Karnataka

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ABSTRACT

The paper has reported the difference of yield, market prices and returns of organic tomato production with that of inorganic production in Kolar district. The study revealed that per ha average yield of tomatoes on organic farm (203.76q) was comparatively lower than that of inorganic farm (217.5q). The average per kg market price of organic tomatoes (Rs. 15.28) was found to be higher than that of inorganic tomatoes (Rs. 13.65). The output: input ratio was also higher on organic farms (3.12) compared to inorganic farms (2.76).

KEY WORDS : Yield, Marketing cost, Net returns, Output input ratio

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India is the second largest producer of fruits and vegetables in the world next only to China. Horticulture development is currently constrained by poor marketing arrangements. The gap between prices received by the farmers and those paid by urban

consumers is large, reflecting inefficient marketing arrangements. The huge production base offers India immense opportunities for export. In India, the area under cultivation of vegetables stood at 8.495 million hectares while fruits were cultivated at 6.383 million hectares. India produced around 146.55 MTs of vegetables and 74.88 MTs of fruits (2010-11) which accounts for nearly 14.0 per cent and 12.0 per cent of country's share in the world production of vegetables and fruits, respectively. India is the second largest producer of fruits and vegetables in the world next only to China (NHB, 2011).

The country's annual requirement is 74.40 MTs fruits and 175.2 MTs vegetables. With the present level of population, the annual requirement of fruits and vegetables will be of the order of more than production level. India plans to increase the production of

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horticultural crops to 300 million tons by 2012 (Government of India, 2001) from the level of 221.43 million tons (NHB, 2010-11). The huge production base offers India great opportunities for export. During 2011-12, India exported vegetables and fruits worth Rs. 4801.29 crores which comprised of vegetables worth Rs. 3021.74 crores and fruits worth Rs.3021.74 crores. Onions, Okra, Bitter Gourd, Green Chillies, Mushrooms and Potatoes contribute largely to the vegetable export basket. While, Mangoes, Walnuts, Grapes, Bananas, Pomegranates account for larger portion of fruits exported from the country. The major destinations for Indian vegetables and fruits are Bangladesh, UAE, Pakistan, Malaysia, Sri Lanka, UK, Saudi Arabia and Nepal (NHB, 2011).

Based on 11th Five year plan approach paper, accelerated agricultural growth will require diversification into horticulture and floriculture which in turn imply structural changes in the relation between agriculture and no agriculture. Diversification requires effective marketing linkages, supported by modern marketing practices including introduction of grading, post-harvest management, cold chains etc.

The objective of the regulated markets established by the government was to regulate trade practices, increase marketing efficiency by reducing marketing charges, eliminate intermediaries and protect the interests of the producer seller. Though regulated markets helped to reduce multiple charges to the producer-seller, the system failed to check trade malpractices, making such markets highly restrictive, inefficient and dominated by traders. To overcome the defects of regulated markets, direct marketing by farmers was experimented with ApniMandis in Punjab and Haryana. Rythu Bazars in AP and Uzahvar- Santhaigalin TN. In the meantime, private players such as Cargill India, Mahindra, ITC e-Choupal, Bharti etc., have emerged with sophisticated supply chain management systems and

vertical co-ordination in India.

Horticultural crops being highly seasonal, perishable are also capital and labour intensive and need care in handling and transportation. Their bulkiness makes the handling and transportation a difficult task, leading to huge post-harvest a loss which is estimated at around Rs. 23,000 crore or nearly 35 per cent of the total annual production (CII, McKinsey, 1997). Their seasonal production pattern results in frequent market gluts and associated price risk, thereby forcing the farmers into distress sale to pre harvest contractors and commission agents. The price spread along the marketing channel is directly proportional to the number of market intermediaries involved along the channel (Gupta and Rathode, 1998).

METHODOLOGY

Multistage sampling design will be adopted in selection of Kolar district, tahsils, villages and vegetable growers'. At first stage, Kolar district is purposively selected on basis of maximum number of vegetable growing area. At the second stage Bangarpet, Mulbagilu and Malur tahsils are selected on the basis of higher area under vegetable growers. At the third stage from each selected tahsils, two villages are selected on the basis of higher area under vegetable growers. At the fourth stage, from each selected village 8 organic vegetable growers and 8 inorganic vegetable growers are selected. Thus, from six villages 96 growers was selected.

ANALYSIS AND DISCUSSION

The results obtained from the present investigation have been presented in the following sub heads:

Yield, market price and return of organic and inorganic tomato :

The average yield level, market price, marketing

| Table 1: Yield, market price and returns in tomato cultivation on organic and inorganic farms | | |
|---|---------------|-----------------|
| Particulars | Organic farms | Inorganic farms |
| Yield (q per ha) | 203.76 | 217.5 |
| Market price (Rs. per kg) | 15.28 | 13.65 |
| Transportation cost (Rs. per q) | 28.76 | 24.09 |
| Commission charges (Rs. per q) | 66.56 | 72.12 |
| Total marketing cost (Rs. per q) | 225.1 | 249.1 |
| Gross returns (Rs. per ha) | 3,11,345.28 | 2,96,887.50 |
| Cost of cultivation (Rs. per ha) | 99756.5 | 107461.04 |
| Net returns (Rs. per ha) | 211588.78 | 189426.64 |
| Output : input ratio | 3.12 | 2.76 |

cost and net returns are presented in the Table 1. The per ha average yield of tomatoes on organic farm (203.76q) was comparatively lower than that of inorganic farm (217.5q). The average per kg market price of organic tomatoes (Rs.15.28) was found to be higher than that of inorganic tomatoes (Rs.13.65). The average transportation cost of organic tomatoes was Rs. 28.76 as against Rs. 24.09 per quintal of inorganic tomatoes. The commission charges paid during Marketing of organically produced tomatoes was Rs. 66.56 per quintal, as against Rs.72.12 per quintal for inorganically produced tomatoes. The organically produced tomatoes could fetch premium price in the market. The total marketing cost was Rs. 225.10 per quintal and Rs. 249.10 per quintal for organic and inorganic tomatoes, respectively. The return structure in tomato clearly revealed that the gross returns per ha was higher (Rs. 311345.28) on organic farms compared to that of inorganic farms (Rs. 296887.50) with a positive net return on both the categories of the farms. The net return on organic farm was Rs. 211588.78 and was Rs. 189426.64 on inorganic farms. Though the yield levels on organic farms were lower compared to inorganic farms, the net returns were higher because of the premium price received and lower cost of cultivation. The output: input ratio was also higher on organic farms (3.12) compared to inorganic farms (2.76).

Conclusion :

The study concluded that average yield of inorganic tomato farming was found to be highest compared to organic tomato farming, but market price for organically grown tomato fetches higher price than inorganically grown tomatoes. So even the yield is less for organic tomato farms they got higher net returns compared to inorganic tomato farms because of the premium price received and lower cost of cultivation. The output: input ratio was also higher on organic farms (3.12) compared to inorganic farms (2.84).

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