RESEARCH PAPER

Economics of *Kharif* tomato production in Latur district of Maharashtra

■ **R. D. SHELKE, R.V. CHAVAN** AND **M. M. BHOGAONKAR**

ABSTRACT

Investigation was carried out during the year 2011-2012. Fifty *Kharif* tomato cultivators were selected from Chakur, Gharni, Wadwal, Mohanl and Kadmoli villages of Latur district for the present study. The techniques like mean, percentage, ratio and cost concept of Cost-A, Cost-B and Cost-C were used to analyze the data. The results revealed that per hectare gross returns from *Kharif* tomato was found to be Rs. 102099.43 net profit was Rs. 26309.71. The output-input ratio was 1.35. The per quintal cost of production in tomato was Rs. 332.60.

KEY WORDS : Tomato, Net profit, Cost-C, Gross returns

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Tomato (*Lycopersicon esculentum* L.) is a warm season vegetable crop and also cultivated under tropical and subtropical regions in the world. Tomato is the second most important vegetable crop next to potato but it tops the list of canned vegetables. Present world production is about 100 million tonnes fresh fruit produced on 3.7 million hectares. Tomato is one of the most important "protective foods" because of its

special nutritive value. Tomato is also rich in medicinal value. The pulp and juice are digestible, mid asperients, a promotes of gastric secretion and blood purifier. It is antiseptic properties against intestinal infection. The commonly grown varieties of tomato are Arka Abha, Arka Saurabh, Pusa Gaurav, Angurlata, Pant Bahar, Ratna and Rupali. It is one of the most versatile vegetable with wide usage in Indian culinary tradition. Tomato had very few competitors in the value addition chain of processing. India ranks second in the world in tomato production. Tomato is important and an economic proposition for the farmers among the horticulture crops grown in India. It is one of commercially important vegetable crop of Uttar Pradesh. Karnataka, Maharashtra, Haryana, Punjab and Bihar. The crop is mostly grown in Marathwada region. In Latur district area under tomato is 1105.79 ha with production 24314.12 Mt and productivity 21.99 Mt/ha

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METHODOLOGY

Investigation was carried out during the year 2011-2012. Fifty *Kharif* tomato cultivators were selected from Chakur, Gharni, Wadwal, Mohnal and Kadmoli village of Latur district for the present study. The cross sectional data were collected from fifty *Kharif* tomato growers by personal interview method with the help of schedule. The cost concepts *viz.,* Cost-A, Cost-B and Cost-C were used to analyze the data in present investigation. Cost-A includes items of cost like hired human labour, bullock labour, fertilizer, manures, insecticide, irrigation, land revenue and taxes, interest on working capital. Then Cost-B consists with Cost-A+ rental value of land, depreciation on implements and machinery, interest on fixed capital. Cost-C includes Cost-B + imputed value of family human labour. Evaluation of cost items was as follows. Human labour was measured in man days. One man day consist with 8 hours. Lobour cost was evaluated at the rate of Rs. 150 per day for male and Rs. 75 per day for female. The female labour was converted in to man days by multiplying to number of female with 0.50. Bullock labour was charged at the rate of Rs. 250 per day for one pair of bullocks. Machine labour in case of owned machine was evaluated as per the hired charge prevailed in the village and in case of hired machine as per the actual amount paid was Rs. 300 per hour. Rate prevailing in the market for nitrogen, phosphorus and potash was Rs. 13.04, Rs. 23.75 and Rs. 9.33 per kg., respectively. One cartload of manure was considering as five quintals its prevailing price was Rs. 50 per quintals.

ANALYSIS AND DISCUSSION

The findings obtained from the present study are presented below:

Table 1: Per hectare item wise expenditure of *Kharif* tomato production

Sr. No.	Particulars	Unit	Quantity	Amount (Rs.)	Per cent
1.	Hired human labour	Man day	177.67	24873.8	32.82
2.	Bullock labour	Pair day	6.95	1737.50	2.29
3.	Machine labour	hr	7.25	3444.00	4.54
4.	Seedlings	No.	18000	10800.0	14.25
5.	Manures	q	29.65	1482.50	1.96
6.	Fertilizers	kg	-	5926.69	7.82
7.	Plant protection	-	-	1967.30	2.59
8.	Land revenue	-	-	49.38	0.07
9.	Incidental expenditure	-	-	120.22	0.16
10.	Interest on working capital @13%	-	-	1638.03	2.16
11.	Cost-A (Σ item 1 to 10)	-	-	52038.92	68.66
12.	Depreciation	-	-	184.43	0.24
13.	Rental value of land	-	-	16967.19	22.39
14.	Interest on fixed capital @10%	-	-	205.38	0.27
15.	Cost-B (Σ item 11 to 14)	-	-	69395.92	91.56
16.	Family human labour	Man day	45.67	6393.80	8.44
17.	Cost-C (Σitem 15 to 16)	-		75789.72	100.00

Table 2 : Per hectare profitability of *Kharif* tomato production

Sr. No.	Particulars	Unit	Quantity	Amount (Rs.)
1.	Gross returns	q	227.87	102099.43
2.	Cost-A	-		52038.92
3.	Cost-B	-		69395.92
4.	Cost-C	-		75789.72
5.	Farm business income (Gross return minus Cost-A)	-		50060.51
6.	Family labour income(Gross return minus Cost-B)	-		32703.51
7.	Net profit (Gross return minus Cost-C)	-		26309.71
8.	Output–input ratio (Gross return divided by Cost-C)	-		1.35
9.	Per quintal cost of production (Cost-C divided by total quantity produce)	-		332.60

Physical inputs and cost of cultivation of *Kharif* tomato production :

Per hectare physical inputs and itemwise expenditure in *Kharif* tomato production was estimated and is presented in Table 1. The result revealed that, use of hired human labour, seedlings and family human labour was 177.67 man days, 18000 in numbers, respectively. Cost-C was found to be Rs.-102099.43. Among the various item of expenditure, the proportionate share of cost of hired human labour was (32.82%) predominant followed by rental value of land (22.39%), seedlings (14.25%) and fertilizers (7.82 %).

Profitability of *Kharif* tomato production :

Per hectare profitability of *Kharif* tomato production was calculated and is presented in Table 2. Ther results revealed that, gross return and ne return obtained from *Kharif* tomato was found to be Rs. 102099.43 and Rs. 26309.71. Output-input ratio was found to be 1.35 that means when 1 rupee spent on *Kharif* tomato production, it would lead to give the returns of Rs. 1.35. Per quintal cost of production was Rs. 332.60.

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