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# TO STUDY THE MARKET ANALYSIS OF TOMATO CULTIVATION IN NASIK, MAHARASHTRA

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**Abstract:** *Tomato (Lycopersicon esculentum plant.) is a critical Solanaceae family crop it is otherwise called "Love Apple". It started by nearby of tropical America. It spread to another piece of the world in the sixteenth 100 years and become standard in the latest ninety years. It is the world's greatest vegetable harvest, developed for its plump natural product. It is considered a huge business nourishing vegetable harvest. Taking into account the significance, the current review named "Financial matters of creation and advertising of kharif tomato in Nashik region of Maharashtra State" was embraced with particular goals like the Expense, returns, and productivity of kharif tomato creation. Multistage examining configuration was embraced in the choice of locale, tehsils, towns, and tomato cultivators. In the main stage, the Nashik locale will be chosen purposively for the review, due to the greatest area of tomato crops being tracked down in the region. In the subsequent stage, two tehsils Viz. Kalwan and Dindori will be chosen. In the third stage from each tehsil, six towns will be chosen. In the forward stage, from every town, eight tomato producers were chosen. Subsequently, 48 tomato producers were chosen from each tehsil, ie. The absolute example size was 96. Logical procedures like even examination, recurrence, and rate strategy were utilized to break down the information. The normal size of holding of kharif tomato cultivators was 0.94 hectares of which the net planted region was 2.70 hectares. The editing force was 111.44 percent. The typical region under Kharif tomato was 0.94 hectares. The gross edited region was 2.92 hectares. The per hectare amount of seed utilized in Kharif tomato development was 145.23 grams. The per hectare cost of development of kharif tomato was Rs 116581.41, though per hectare yield was 154.66 quintals, which was esteemed at Rs 166340.89. The portion of cost-An and Cost-B in the all-out cost worked out to 70.08 percent and 95.34 percent, separately. The input-yield proportion was viewed as 1.46.*

***Keywords:*** *Kharif tomato, Nashik, Production, Profitability, Input-output ratio,Farmers*

## Introduction

Vegetables are huge constituents of Indian agribusiness and wholesome security because of their brief term, high return, fortifying extravagance, financial feasibility, and abianother piecee on the -ranch and off-ranch business. India with vegetables within 181 million tons is tworld'scond greatest maker of vegetables contributing 14% of the world's vegetable creation. India continues to be the second greatest maker of vegetables on the planet close to china. Tomato (Lycopersicon esculentum factory.) is a huge Solanaceae family crop it is otherwise called "Love Apple". it is started by nearby of tropical America. it is spread to other piece of world in the sixteenth 100 years and become standard inside latest ninety years. It is world's greatest vegetable yield, developed for its meaty natural product. It is thought of as a huge business with a healthful vegetable harvest. The region, creation, and efficiency of Tomatoes in India were around 814 thousand hectares, 20515 thousand MT, and 25.20 MT/ha, separately, in the year 2018-19 (Source: Cultivation measurements initially). Significant states creating tomatoes in India are Uttar Pradesh, West Bengal, Bihar, Gujarat, Punjab, Madhya Pradesh, and Assam. The region under tomato development in the Nashik area was 16.99 thousand hectares and Creation 560.07 thousand metric tons and an Efficiency of 32.9 metric tons per hectare. (2018-19) (source: Region Measurable Office, Nashik).

## Materials and Techniques

Multistage examining configuration was embraced in the choice of region, tehsils, towns, and tomato cultivators. In the principal stage, the Nashik locale will be chosen purposively for the review, as a result of the greatest area of tomato crops being tracked down in the region. In the subsequent stage, two tehsils Viz. Kalwan and Dindori will be chosen. In the third stage from each tehsil, six towns will be chosen. In the forward stage, from every town, eight tomato producers were chosen. In this way, 48 tomato producers were chosen from each tehsil, for example, the Complete example size was 96. The information was gathered from cultivars with the assistance of a pre-tried plan through a private meeting technique. Cross-sectional information was gathered from the tested tomato producers by private meeting strategy with the assistance of the introduced plan. The information was gathered during the year 2019-2020. Scientific strategies like plain examination, recurrence, and rate strategy were utilized to break down the information. To gauge Info use, cost design and productivity of Tomato crop were accomplished by even examination in which number juggling with cost idea of Cost-A, Cost-B, Cost-C, rate, and result input proportion will be underlined.

## Results and Conversation

Farming is the foundation of Indian economy. Its creation is a lot of ward upon agro-climatic and geographic circumstances as they oversee the idea of cultivating which straightforwardly influences the economy of the ranchers. There are different variables that have impressive effects on the construction of cultivating by implication. These elements are age, family size, the instructive status of the family, occupation, trimming example, creation, and utilization. Consequently, an endeavor was made to make sense of the notable highlights of the ranch business economy of the example ranch families under study.

## Utilization of yearly actual data sources and results in Kharif tomato creation

Per hectare, actual data sources and the result of tomato creation were exercised and are introduced in Table.1 Work is a significant contribution to trim creation. In the event of tomato development human work was utilized widely by the cultivators since activities like raising seedlings, relocating, and mostly selecting organic products are conveyed by the human workers. It was seen that for tomato creation, per hectare utilization of employed human work was 52.87 man-days though absolute family human work utilized was 31.29 man-days. Utilization of per hectare use of bullock work was 10.47 pair days and utilization of machine work was 15.38 hours in tomato creation. The per hectare amount of seed utilized in Kharif tomato development was 145.23 grams. It inferred that tomato producers were relocating tomato seedlings at expansive dispersing. Concerning fertilizer, there were 26.71 qt. utilizations of excrements. The per hectare amount of manure utilized for the Kharif tomato crop was 200.14 kg nitrogen, 100.07 kg phosphorous, and 100.07 kg potash. Plant insurance synthetic compounds are utilized to control the assault of nuisance and illnesses. The utilization of plant assurance in the Kharif tomato crop was 5.89 liters. The utilization of the water system was 466.92 m3 in tomato crops. In regard to the cost of creation in tomato marking utilization of bamboo, wire and suitable was 1792.97 pieces, 50.32 kg, and 26.52 kg, separately. It was additionally seen that per hectare tomato yield in the kharif season was 154.66 quintals. It suggested that there was a legitimate use of actual contributions to tomato development.

## Cost, returns, and productivity of kharif tomato

Per hectare, thing-wise use in Kharif tomato creation was assessed and is introduced in Table 2. The outcome uncovered that per hectare complete expense concerning kharif tomato was Rs 166340.89 while Cost-A was Rs 116581.41 and Cost-B was Rs 158594.25.

The portion of Cost-A was 70.08 percent while Cost-B was 95.34 percent. Among the different things of use, the percent portion of the rental worth of land was predominant at 23.98 percent followed by recruited human work (8.03 percent), the premium on working capital (2.86 percent), and family human work (4.65 percent), separately in tomato development.

**Table.1** Per hectare physical inputs and output in *Kharif* tomato production (Unit/ha)

| | **Particulars** | **Unit** | **Tomato** |
|---|---|---|---|
| | **INPUT** | | |
| 1. | Hired human labor | man day | 52.87 |
| 2. | Family human labor | man day | 31.29 |
| 3. | Bullock labor | pair day | 10.47 |
| 4. | Machine labor | Hour | 15.38 |
| 5. | Seeds | Gm | 145.23 |
| 6. | Fertilizer | | |
| | Nitrogen | Kg | 200.14 |
| | Phosphorus | Kg | 100.07 |
| | Potash | Kg | 100.07 |
| 7. | Plant protection | Lit | 5.89 |
| 8. | Irrigation | $m^3$ | 466.92 |
| 9. | Staking | | |
| | Bamboo | No.piece | 1792.97 |
| | Wire | Kg | 50.32 |
| | Sutali | Kg | 26.52 |
| 10. | Manure | Q | 26.71 |
| | **OUTPUT** | | |

| | | | |
|---|---|---|---|
| 11. | Main produce | Q | 154.66 |
| 12. | Home cons./Gift/Losses | Q | 1.22 |

**Table.2** Per hectare cost of cultivation of *kharif* tomato production

| Particulars | | Tomato crop | |
|---|---|---|---|
| | | **Amount (Rs.)** | **Percent** |
| 1. | Hired human labor | 13370.63 | 8.03 |
| 2. | Bullock labor | 6283.20 | 3.77 |
| 3. | Machine labor | 12309.59 | 7.40 |
| 4. | Seeds | 20332.97 | 12.22 |
| 5. | Manure | 5342.27 | 3.21 |
| 6. | Fertilizer | | |
| | Nitrogen | 1300.92 | 0.78 |
| | Phosphorus | 2401.70 | 1.44 |
| | Potash | 1400.99 | 0.84 |
| 7. | Plant protection | 5892.11 | 3.54 |
| 8. | Land revenue | 204.72 | 0.12 |
| 9. | Staking(Bamboo/ Wire/Sutali) | 38193.21 | 23.17 |
| 10. | Incidental charges | 404.15 | 0.24 |
| 11. | Interest in working capital@13% | 4761.86 | 2.86 |
| 12. | Depreciation on capital assets@10% | 1930.40 | 1.16 |
| 13. | **Cost-A (∑items 1 to 12)** | 116581.41 | 70.08 |
| 14. | The rental value of land | 39889.39 | 23.98 |
| 15. | Interest on fixed capital@11% | 2123.44 | 1.27 |
| 16. | **Cost-B (∑items 13 to 15)** | 158594.25 | 95.34 |
| 17. | Family human labor | 7746.63 | 4.65 |
| 18. | **Cost-C (∑items 16 to 18)** | 166340.89 | 100.00 |

**Table.3** Per hectare profitability in *kharif* tomato production (Rs/ha)

| | **Particulars** | **Physical unit** | **Physical quantity** | **Amount (Rs.)** |
|---|---|---|---|---|
| 1. | Return from main produce | Q | 154.66 | 241071.50 |
| 2. | Home consumption | Q | 1.22 | 1918.19 |
| 2. | Gross return (∑ 1 to 2) | _ | _ | 242989.69 |
| 3. | Cost- A | _ | _ | 116581.41 |
| 4. | Cost- B | _ | _ | 158594.25 |
| 5. | Cost –C | _ | _ | 166340.89 |
| 6. | Farm business income (Gross return minus cost- A) | _ | _ | 126408.28 |
| 7. | Family labor income (Gross return minus cost- B) | _ | _ | 84395.43 |
| 8. | Net profit (Gross return minus cost- C) | _ | _ | 76648.80 |
| 9. | Output input ratio (Gross return divided by cost-C) | _ | _ | 1.46 |
| 10. | Per quintal cost of production (Cost-C minus the value of by producedivided by main produce quantity) | _ | _ | 1063.08 |

Per hectare productivity of kharif tomato was determined and is introduced in Table.3 The outcomes uncovered that gross return was gotten Rs 241071.50 per hectare in Kharif tomato creation. Obviously, ranch business pay, family work pay, and Net benefit were Rs 126408.28, Rs 84395.43, and Rs 76648.80, separately in Kharif tomato creation

The yield input proportion was viewed as 1.46 that mean when 1 rupee was spent on Kharif tomato creation, it would prompt give the arrival of Rs 1.46 which showed that the Kharif tomato crop was a beneficial venture.

The typical region under Kharif Tomato was

0.94 ha. The gross edited region Tomato for example cost C was Rs.166340.89 in what commitment of Cost-A was Rs.116581.41 and Cost-B was Rs. 158594.25. The result input proportion of tomatoes was 1.46 which demonstrates that the tomato crop is a profoundly productive endeavor.

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