

Knowledge and Adoption of Tomato Growers About Improved Tomato production Technology

Sandeep Yadav¹, R. R. Prajapati² and M.R.Prajapati³

1 Ex. P.G. Student, CPCA, SDAU, S.K.Nagar – 385 506

2 Assistant Professor, Department of Extension Education, C. P. College of Agriculture, SDAU, S.K. Nagar- 385 506

3 Principal, C. P. College of Agriculture, SDAU, S.K. Nagar – 385506

Email : rrpajapati.sdau@gmail.com

ABSTRACT

The study was undertaken in Jaipur district of Rajasthan state having largest area and highest production of tomato crop in comparison to other districts of the state. Two talukas viz., Amber and Chomu were selected randomly. Four villages from each taluka were selected by using simple random sampling technique. Total 120 respondents, 15 from each of the selected eight villages were selected randomly. The data were collected by personal interview. The study revealed that majority of the respondents were having medium level of knowledge, followed by low level of knowledge and high level of knowledge about improved tomato cultivation practices. While in case of adoption, majority of the respondents had medium level of adoption, followed by low level of adoption and high level of adoption of improved tomato cultivation practices. Major constraints faced by tomato growers in adoption of improved tomato production technology were: fluctuating market price of tomato, non-availability of quality seedlings, lack of marketing facilities at nearby village, and were ranked first, second and third, respectively.

Keywords: *Tomato growers, Knowledge, Adoption, Constraints.*

INTRODUCTION

Horticulture sector covering only 8.00 per cent of total cropped area in the country and it contributes 24.50 per cent to G.D.P. and 54.55 per cent to export earning in agriculture sector. The tomato is having substantial contribution in agricultural economy of the Jaipur district of Rajasthan state. Tomato in the district is cultivated in 7875 hectares of land and production is 19231 metric tonnes. Tomato cultivation is sophisticated and location specific. It requires enough care right from sowing to post harvest operations. Necessary package of practices must be followed for better yield. It demands, complete knowledge of production and post harvest technology and it must be adopted by the farmers in right manner and at right time. Considering these facts, present study entitled “Knowledge and Adoption level of the Tomato Growers about Improved Tomato Production Technology in Jaipur district of Rajasthan State” was planned with following objectives.

OBJECTIVES

- (i) To study the personal, socio-economic, communicational and psychological characteristics of tomato growers.
- (ii) To ascertain the knowledge level and adoption level of tomato growers about improved tomato production technology.
- (iii) To identify the constraints faced by the tomato growers in adoption of improved tomato production technology.

METHODOLOGY

The study was undertaken in Jaipur district of Rajasthan state. Jaipur district having largest area and highest production of tomato crop in comparison to other districts of Rajasthan was purposively selected; two talukas viz., Amber and Chomu were selected randomly. Four villages from each taluka were selected by using simple random sampling technique. Thus, eight villages were selected randomly. From each village, fifteen respondents were selected randomly

making a sample of 120 respondents.

The present study was confined to ex-post-facto research design. The data were collected with the help of structured pre-tested interview schedule. The data collected were analyzed, tabulated and interpreted in the light of objectives for arriving at meaningful interpretation. To measure the knowledge of the respondents about tomato production technology, a teacher made test was developed. The test consisted of items, the items were enlisted based on improved cultivation practices. Such items were then discussed with the research scientists and subject matter specialists and finally 89 items were included in the test. A score of one was assigned to correct answer and zero to incorrect answer. The knowledge index was then calculated for each respondent. The respondents were grouped into three levels of knowledge on the basis of their knowledge index viz., low, medium and high knowledge.

Adoption quotient for each respondent was calculated to measure his adoption of recommended tomato cultivation practices by using the scale developed by Sengupta (1967). Respondents were classified into three categories, low, medium and high level of adoption.

An open-ended question was asked to the tomato growers to know the constraints faced by them in adoption of improved tomato production technology. The frequency and percentage were computed for each of the constraints. Then, ranks were assigned to the constraints on the basis of percentage.

RESULTS AND DISCUSSION

Knowledge level of tomato growers

Table 1: Distribution of the respondents according to their level of knowledge n=120

Sr. No.	Category	No.	Per cent
1	Low (below 67 score)	23	19.66
2	Medium (between 67 to 82 score)	79	68.83
3	High (above 82 score)	18	15.00

Mean = 74.91

S.D. = 7.70

The result in Table 1 clearly indicates that majority

(68.83 %) of the respondents were having medium level of knowledge. Whereas, 19.66 and 15.00 per cent of the respondents were found having low and high level of knowledge, respectively.

It is evident from the above data that majority of the respondents had medium level of knowledge. The probable reason might be their medium extension contacts and extension participation.

Adoption level of tomato growers

With a view to find out extent of adoption of scientific tomato cultivation practices, the tomato growers were asked to give the information about the package of practices adopted by them. On the basis of scores obtained by the respondents, the 'Adoption Quotient' was calculated for each respondent. Based on adoption quotient, respondents were classified into three categories. The classification of respondents in this respect is presented in Table 2.

Table 2: Distribution of the respondents according to their extent of adoption n=120

Sr. No.	Category	No.	Per cent
1	Low (below 63 score)	19	15.83
2	Medium (between 63 and 79 score)	89	74.17
3	High (above 79 score)	12	10.00

Mean = 71.38

S.D. = 8.35

The result presented in Table 2 indicates that majority (74.17 %) of the respondents were found having medium level of adoption. On the other hand, 10.00 per cent of the respondents fall under the category of high level of adoption whereas, 15.83 per cent of the respondents were found having low level of adoption.

The probable reason might be that there is growing awareness about the advantage of the vegetable crop cultivation and gaining popularity day by day among the farming community.

Constraints faced by the tomato growers

Table 3: Constraints faced by the tomato growers in adoption of improved tomato production technology

n=120

Sr. No.	Constraints	No.	Percent	Rank
1	Non-availability of quality seedlings	93	77.50	II
2	Non-availability of labours	58	48.34	X
3	High cost of labours	68	56.67	VIII
4	Lack of timely technical guidance	82	68.33	IV
5	Irregular supply of irrigation	63	52.50	IX
6	Lack of marketing facilities at nearby village	85	70.83	III
7	Fluctuating market price of tomato	95	79.16	I
8	Lack of marketing knowledge	70	58.33	VII
9	Lack of knowledge about control measures of pests and diseases	74	61.66	VI
10	High cost of fertilizers and pesticides	79	65.83	V

As seen from the Table 3, major constraints faced by tomato growers in adoption of improved tomato production technology were; fluctuating market price of tomato (79.16 %), non-availability of quality seedlings (77.50 %) and lack of marketing facilities at nearby village (70.83 %) and were ranked first, second and third, respectively. Whereas, lack of timely technical guidance (68.33 %), high cost of fertilizers and pesticides (65.83 %) and lack of knowledge about control measures of pests and diseases (61.66 %) were ranked fourth, fifth and sixth, respectively. The remaining constraints *viz.*, lack of marketing knowledge (58.33 %), high cost of labours (56.67%), irregular supply of irrigation (52.50 %) and non-availability of labours (48.34 %) and were ranked seventh, eighth, ninth and tenth, respectively.

It is inferred from the above discussion that fluctuating market price of tomato, non-availability of quality seedlings, lack of marketing facilities at nearby village, lack of timely technical guidance and high cost of fertilizers and pesticides were the major constraints in order of priority as reported by tomato growers in adoption of recommended tomato cultivation practices.

CONCLUSION

Majority of the respondents were having medium level of knowledge, followed by low level of knowledge and high level of knowledge about improved tomato cultivation practices. In case of, majority of the respondents had medium

level of adoption, followed by low level of adoption and high level of adoption. As regards constraints, fluctuating market price of tomato, non-availability of quality seedlings, lack of marketing facilities at nearby village, lack of timely technical guidance, high cost of fertilizers and pesticides, lack of knowledge about control measures of pests and diseases were important constraints faced by the tomato growers in adoption of improved tomato production technology.

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