

## Reasons for existence of technological gap in tomato cultivation

VIRESH ANDHARI, HRISHIKESH SONAWANE AND P.G. KHALACHE

See end of the article for authors' affiliations

Correspondence to :

**H.P. SONAWANE**

Division of  
Extension Education,  
College of Agriculture,  
PUNE (M.S.)  
INDIA

### ABSTRACT

The research was conducted in two districts of Western Maharashtra. The personal interviewing method was used for data collection. To find out the reasons for existence of technological gap and the suggestions made by the tomato growers in minimizing the technological gap in the cultivation of tomato crop were the two important objectives studied under this research. It was found that majority of the respondent tomato growers reported that lack of knowledge of selection of proper growth regulator was the reason for existence of technological gap, followed by the lack of knowledge of proper application of growth regulator. The respondent tomato growers suggested that they need stabilization of market prizes and supply of fertilizer within time

### INTRODUCTION

Tomato is a well known very popular vegetable grown successfully throughout India. The tomato produce is available in cities almost all the year round. There is a yield gap between national and state tomato yield per unit area. For this the reasons may be many among them the use of local material, improper time of planting, shortage of fertilizer, inadequate irrigation facilities etc. Introduction of high yielding varieties and other technologies in tomato is a significant landmark in the agricultural development. The efforts are also being made for transfer of scientific information to potential users as quickly as possible. Nevertheless, there exists a gap between the scientific information evolved and its utilization by ultimate users. Hence, to find out the factors responsible for this are must. Keeping this view in mind, the present study was undertaken to find out the reasons for existence of technological gap in each cultivation practices adopted for tomato by the growers and to obtain the suggestions made by the tomato growers in minimizing technological gap in the cultivation of tomato crop.

### METHODOLOGY

This study was carried out in Nashik and Pune districts of Western Maharashtra, where maximum area under tomato cultivation was observed. From each district, two tahsils were selected on the basis of maximum area under tomato cultivation. Accordingly, Niphad and

Dindori tahsils from Nashik district and Junner and Ambegaon tahsil from Pune district were selected for the study. Fifteen villages from each tahsil were selected on the basis of maximum area under tomato cultivation. From each village, 5 respondent tomato growers were selected randomly, so there were in all 2 districts, 4 tahsils, 60 villages and 300 respondent tomato growers for the study purpose.

### RESULTS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized below:

#### Reasons for existence of technological gap in tomato cultivation

In this investigation, an attempt was made to know the reasons for existence of technological gap in tomato cultivation from Western Maharashtra.

Observations of Table 1 reveal that majority (68.66 per cent) of the respondent tomato growers reported that lack of knowledge of selection of proper growth regulator was the reason for existence of technological gap, followed by 60.33 per cent reported that, lack of knowledge of proper application of growth regulator was reason for existence of technological gap in the growth regulator management practice. However, 59.66 per cent of the respondent tomato growers reported that, lack of knowledge of

#### Key words :

Technological gap, Respondent tomato growers, Reasons and suggestions

Accepted :  
May, 2010

selection of proper pesticide was the reason for existence of technological gap in plant protection management in tomato cultivation, while 58.66 per cent of the respondent tomato growers reported non-availability of selective weedicide was the reason behind technological gap in intercultural operation of tomato crop. Further, 57.66 per cent of the respondent tomato growers reported that shortage of chemical fertilizers at proper time was reason for existence of technological gap in nutrient management in tomato cultivation. However, 56.00 per cent reported that irregular rainfall was the reason for existence of technological gap in tomato cultivation. Followed by, 55.66 per cent and 50.33 per cent of the respondent tomato growers reported that non-availability of skilled labour and lack of knowledge of nursery management were the reasons for existence of technological gap in tomato cultivation.

Half (50.00 per cent) of the respondent tomato growers stated that non-availability of sufficient FYM and 49.33 per cent of the respondents reported that, unawareness of proper irrigation management were the reasons for existence of technological gap. Followed by, 43.33 per cent, 40.33 per cent, 36.00 per cent, 34.33 per cent, 33.33 per cent and 25.00 per cent of the respondent tomato growers reported reasons for existence of technological gap in tomato cultivation were snowfall, unsure electric supply, heavy rainfall with wind, poor economic condition, lack of knowledge of proper application of pesticide and drought conditions, respectively.

### Suggestions made by the tomato growers to minimize the technological gap in tomato cultivation:

In order to minimize the technological gap in tomato cultivation, suggestions expressed by the respondent tomato growers were collected, tabulated and the results are presented in Table 2.

It was observed that 54.66 per cent of the respondent tomato growers suggested, need of market prize stabilization, while 47.00 per cent suggested supply of fertilizer within time. However, 35.33 per cent, 32.00 per cent and 28.66 per cent of the respondent tomato growers suggested that they require information on growth regulator application, need of regular supply of electricity and information of market intelligence, respectively. Further, 28.33 per cent, 25.00 per cent, 21.33 per cent and 7.33 per cent of the respondent tomato growers suggested that, they require availability of selective weedicide for tomato, information on plant protection management, information on irrigation management and subsidy on agricultural inputs, respectively. Singh *et al.* (1991) and Gupta *et al.* (2001) also have conducted same type of studies in the past.

### Conclusion:

A majority of the respondent tomato growers reported that lack of knowledge of selection of proper growth regulator was the reason for existence of technological gap, followed by lack of knowledge of proper application of growth regulator. The respondent tomato growers suggested that they need stabilization of market prizes

**Table 1 : Distribution of the respondent tomato growers according to reasons for existence of technological gap in tomato cultivation**

Sr. No.	Reasons	Western Maharashtra		Rank
		Frequency	Per cent	
1.	Lack of knowledge of nursery management	151	50.33	VIII
2.	Non-availability of sufficient FYM	150	50.00	IX
3.	Shortage of chemical fertilizers at proper time	173	57.66	V
4.	Non-availability of selective weedicide for tomato crop	176	58.66	IV
5.	Unawareness of proper irrigation management	148	49.33	X
6.	Unsure electric supply	121	40.33	XII
7.	Lack of knowledge of selection of proper pesticide	179	59.66	III
8.	Lack of knowledge of proper application of pesticide	100	33.33	XV
9.	Lack of knowledge of selection of proper growth regulator	206	68.66	I
10.	Lack of knowledge of proper application of growth regulator	181	60.33	II
11.	Non-availability of skilled labour	167	55.66	VII
12.	Heavy rainfall with wind	108	36.00	XIII
13.	Irregular rainfall	168	56.00	VI
14.	Snowfall	130	43.33	XI
15.	Drought conditions	75	25.00	XVI
16.	Poor economic condition	103	34.33	XIV

**Table 2: Distribution of the respondent tomato growers according to suggestions**

Sr. No.	Suggestions	Western Maharashtra		Rank
		Frequency	Per cent	
1.	Supply of fertilizer within time	141	47.00	II
2.	Availability of selective weedicide for tomato	85	28.33	VI
3.	Information on irrigation management	64	21.33	VIII
4.	Information on growth regulator application	106	35.33	III
5.	Regular supply of electricity	96	32.00	IV
6.	Information on plant protection management	75	25.00	VII
7.	Stabilization of market prizes	164	54.66	I
8.	Information on market intelligence	86	28.66	V
9.	Subsidy on Agri. inputs	22	7.33	IX

and supply of fertilizer within time.

Authors' affiliations:

**VIRESH ANDHARI AND P.G. KHALACHE,**  
Department of Extension Education, Mahatma Phule  
Krishi Vidyapeeth, Rahuri, AHMEDNAGAR (M.S.)  
INDIA

## REFERENCES

- Gupta V., Mankar, D. and Sunderaswami, S.** (2001). Knowledge of farmers about improved cultivation practices of rice in Jammu. *Maharashtra J. Extn. Edn.*, **20**: 74-76.
- Singh, J., S.N., Vijayraghvan, K., and Haque, T.** (1991). Transfer of technology to small farms: *An analysis of constraints and experiences*, concept, Publication, New Delhi :18-21.

\*\*\*\*\*  
\*\*\*\*\*