

Technological Gap in Adoption of Recommended Turmeric Production Technology Among Turmeric Growers

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ABSTRACT

Turmeric (Curcuma longa) is an important spice crop. Also, known as Goldmine of India. It is well known for its wide use in medicines and processing industry. The present investigation was conducted with view to study the extent of technological gap between recommended and actually adopted turmeric technologies by the respondent turmeric growers. Present study was conducted in 10 villages, randomly selected villages of Umarkhed and Mahagoan tahsil of Yavatmal district. From each selected village, 12 respondents were selected on random basis. Hence, in all 120 respondents were interviewed personally. Majority of the respondent turmeric growers were found in the medium level of technological gap i.e. 61.60 per cent. The 15.90 per cent of the respondent turmeric growers were found in high technological gap while, 22.50 per cent of the respondent turmeric growers were found in low technological gap.

Keywords: Technological gap, Turmeric, Recommended technologies

INTRODUCTION

Turmeric (*Curcuma longa* L.) the ancient and sacred spice of India known as 'Indian Saffron' is an important commercial crop grown in India. It is used in diversified forms as a condiment, flavouring and colouring agent and as a principal ingredient in Indian culinary as curry powder. It has anti cancer and antiviral activities and hence, finds use in the drug industry and cosmetics industry. 'A type of starch is also being extracted from a particular type of turmeric. The increasing demand for natural products as food activities makes turmeric as ideal produce as a food colourant.

In the year 2000-2001 India produced 3726 thousand tones of turmeric and in 2009-10 the production was 4016 thousand tones (The Hindu survey of agriculture 2010). Maharashtra is also one of the important states in turmeric production. In the Maharashtra about 113.60 thousand ha of cultivation area under turmeric crop and produce 96.60 thousand tones of turmeric. Looking towards increase in area under turmeric, present study was carried out with following subjects.

OBJECTIVES

- (i) To know the technological gap of repondents in turmeric production technology
- (ii) To know the extent of adoption of respondents in turmeric production technology

METHODOLOGY

The list of turmeric growing villages of Umarkhed and Mahagoan tahsil was obtained from Taluka Agriculture Officer. There are 158 and 116 villages in Umarkhed and Mahagoan tahsils respectively. The area under turmeric cultivation in Umarkhed and Mahagoan tahsils were 300 ha and 200 ha. The area out of these, five villages each from Umarkhed and Mahagoan tahsil were selected having highest area under turmeric cultivation. A list of turmeric growers was prepared from village functionaries. The 12 farmers from each village were selected by random sampling technique. Thus, total 120 respondents were as a sample for the study.

Technological gap was operationally defined as the gap between two levels i.e. recommended turmeric production technology and its actual adoption by the respondent turmeric growers. Responses of the respondents were collected in three continuum scale i.e. fully adopted 2, partially adopted 1, and not adopted 0 on the basis of score obtained. Technological gap was measured by using following formula :

$$\text{Technological gap} = \frac{R - A}{R} \times 100$$

Where,

R = Recommended score

A = Adopted score

$$\text{Mean technological gap} = \frac{\text{Total gap for all practices of crop}}{\text{Number of practices recommended for the crop}}$$

RESULTS AND DISCUSSION

Table 1: Distribution of the respondent turmeric growers by their overall technological gap in turmeric production n=120

Sr. No.	Technological gap	Frequency	Per cent
1	Low (Upto Scores 37)	27	22.50
2	Medium (Scores 38 to 67)	74	61.60
3	High (Scores 68 and above)	19	15.90

From the above Table-1 it is observed that, majority of the respondent turmeric growers were found in the medium level of technological gap 61.60 per cent. 15.90 per cent of the respondent turmeric growers were found in high technological gap, while, 22.50 per cent of the respondent turmeric growers were found in low technological gap group.

Table 2 : Distribution of the turmeric growers by their extent of adoption and technological gap with regard to individual practice of the turmeric production technology n=120

Sr. No.	Name of practice	Standard score	Extent of adoption per cent	Technological Gap per cent	Rank
1	Time of planting	02	97.50	2.50	I
2	Selection of soil	02	92.50	7.50	II
3	Method of planting	02	91.60	8.40	III
4	Land preparation	06	90.83	9.17	IV
5	Selection of planting material	04	88.12	11.8	V
6	Harvesting	04	84.16	15.83	VI
7	Water management	04	82.08	17.92	VII
8	Earthing up	04	81.50	18.50	VIII
9	Post harvest practices	24	71.05	28.95	IX
10	Variety	06	61.66	38.37	X
11	Weed management	06	55.69	44.31	XI
12	Chemical fertilizer	08	52.50	47.50	XII
13	Intercrop	02	51.66	48.38	XIII
14	Pest management	06	45.83	54.17	XIV
15	Disease management	04	31.38	68.62	XV
16	Seed treatment	04	22.87	77.92	XVI
	Average	88	68.80	31.20	

It was observed from Table-2 that, high technological gap in seed treatment (77.92 per cent), disease management (68.62 per cent), pest management (54.17 per cent), intercrop (48.34 per cent), whereas, medium technological gap was observed in practices viz., chemical fertilizer (47.50 per cent), weed management (44.31 per cent), variety (38.34 per cent) and post harvest practices (28.95 per cent). However, low technological gap existed in earthing up (18.50 per cent), water management (17.92 per cent), harvesting (15.83 per cent), selection of planting material (11.88 per cent), land preparation (9.17 per cent), method of planting (8.40 per cent), selection of soil (7.50 per cent) and time of planting (2.50 per cent).

The average technological gap of the turmeric growers was 31.20 per cent.

CONCLUSION

It was concluded that a majority of the respondent turmeric growers had medium level of technological gap and the average technological gap of the respondent turmeric growers was 31.20 per cent. The extent of adoption of improved practices was 68.80 per cent.

A wide technological gap existed with respect to

seed treatment, disease management, pest management. Since, these practices are important from the point of increasing production and net return, it warrants the attention of extension workers and scientist to intensify their efforts in these areas where wide gap observed and appropriate educational activities like organizing trainings, demonstrations and exhibitions should be undertaken to reduce technological gap.

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