

## Extent of adoption of recommended cultivation practices of okra by the okra growers

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### **ABSTRACT**

The study was conducted in Parbhani district of Marathwada region of Maharashtra State. Parbhani and Purna talukas of Parbhani district were purposively selected for the present investigation because it has more area under okra crop. From each taluka five villages were selected based on maximum acreage under okra crop. From each village 12 respondents were selected randomly who were growing okra crop from last three years. Thus, 120 respondents growing okra crop constituted the sample for study. The respondents were interviewed with the help of a well structured interview schedule. The findings revealed that majority (92.50 per cent) of the respondents adopted ridges and furrow method of irrigation. About 91.66 per cent and 86.66 per cent of the respondents had applied irrigations as per recommendation and applied protective irrigations, respectively. 90.00 per cent of them had adopted proper time of harvesting of okra crop, while 80.83 per cent of the respondents followed recommended climatic conditions for okra crop. Nearly 100.00 per cent of the respondents expressed that failure of electric supply was major constraint in adoption of cultivation practices of okra.

**Key words :** Adoption, Okra growers, Cultivation practices

### **INTRODUCTION**

The basic challenge before India is to enhance the production of nutritious food in sustainable manner which besides feeding the country's large population, can play a major role in meeting the shortage of food. Vegetables being short duration crops, can give six to ten time more yield than any cereal crop in a year and thus, can provide better protection to the rising population. Vegetables are rich reservoir of vitamins and minerals, which are most essential for maintaining good health. All vitamins are found in small or bulk quantities in common vegetable crops. Their use in daily diet demands a large production in country like India.

Okra (*Abelmoschus esculentus* L.) is grown as an important vegetable crop in many tropical and subtropical parts of the world and is adaptable to wide range of growing conditions. It is a nutritious vegetable. It is a good source of vitamin A, B and also contains some amount of vitamin C. It is rich in protein, minerals and iodine.

Okra farming unlike other crop husbandry requires specialized type of farming techniques and skill. The success of any such enterprise depends upon participation of more and more farmers in it. Similarly extension workers have to play a more vital role to educate the farmers to take up okra production on their farms. The present study is therefore, an attempt to understand the level of adoption of okra growing farmers. This may help extension personnel in boosting Bhendi production by locating such farmers and by providing necessary facilities

to them. With this specific idea in view, present investigation was undertaken with the following objectives to study the extent of adoption of recommended package of practices by okra growers and to identify the constraints encountered by okra growers in adoption of recommended cultivation practices of okra.

### **MATERIALS AND METHODS**

The study was conducted in Parbhani district of Marathwada region of Maharashtra State. Parbhani and Purna talukas of Parbhani district were purposively selected for the present investigation because of more area under okra crop. From each taluka five villages were selected based on maximum acreage under okra crop. From each village 12 respondents were selected who were growing okra crop from last three years. Thus, 120 respondents growing okra crop constituted the sample for study. The data were collected through personal interview. The adoption of okra growers in respect of recommended improved cultivation practices of okra was studied by computing adoption score. Two score were assigned for full adoption, one score for partial adoption and zero score for non-adoption. The level of adoption was worked out by adding the score of adoption of all cultivation practices.

### **RESULTS AND DISCUSSION**

From Table 1 it was revealed that 78.33 per cent of the respondents had adopted medium to rich fertile, deep,

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**Table 1 : Distribution of the respondents according to extent of adoption of recommended cultivation practices of okra crop n=120**

Sr. No.	Recommended practices	Adoption					
		Full		Partial		Non adoption	
		No.	%	No.	%	No.	%
A)	Preparatory tillage						
1.	Selection of medium to rich fertile, deep, well drained soil	94	78.33			26	21.67
2.	Ploughing and 2-3 harrowing before sowing	71	59.16	50	41.66	9	7.5
3.	Climatic condition required	97	80.83			23	19.17
B)	Seed and sowing						
1.	<i>Kharif</i> sowing June-July Summer sowing Jan.- Feb.	98	81.66			22	18.34
2.	Seed rate <i>Kharif</i> 8-10 kg/ha Summer 10-15 kg/ha	44	36.66	76	63.34		
3.	Seed treatment before sowing Thiram @ 3 gm/kg	23	19.16			97	80.84
4.	FYM used at the time of sowing	31	25.83	81	67.5	08	6.66
5.	Spacing <i>Kharif</i> 30x20 cm Summer 30x30 cm	50	41.68	70	58.32		
C)	Intercultivation						
1.	2 to 3 hoeing	67	55.83	53	44.13		
D)	Irrigation						
1.	Gap between irrigation 6 to 8 days	110	91.66	10	8.34		
2.	Total number of irrigation (5-7 irrigation)	44	36.66	76	63.34		
3.	Protective irrigation at time of flowering and at the time of pod development	104	86.66			16	13.34
4.	Method of irrigation	111	92.5			09	7.5
E)	Fertilizers						
1.	Recommended fertilizer dose (100:50:50 NPK kg/ha)	45	37.5	74	61.66	06	5.00
2.	At the time of sowing half dose of nitrogen and full dose of P <sub>2</sub> O <sub>5</sub> and K <sub>2</sub> O and half nitrogen dose at one month after sowing	45	37.5	68	56.66	07	5.85
F)	Recommended plant protection measures for pest and disease	38	37.66	24	20.00	58	48.33
G)	Harvesting						
1.	90 to 100 days after sowing	103	85.83	17	14.16	05	4.17
2.	Time of harvesting in the morning	108	90.00			12	10.00

well drained soil for okra cultivation as recommended. About 80.83 per cent of the respondents followed recommended climatic conditions for okra crop, while 81.66 per cent of them had adopted *Kharif* and summer season for sowing.

It was also observed from Table 1 that, 91.66 per cent of the respondents had applied irrigations as per recommendation. About 86.66 per cent and 92.50 per cent of the respondents had applied protective irrigations and adopted ridges and furrow method of irrigation.

Table 2 showed that majority (67.50 per cent) of the respondents were having medium level of adoption of recommended cultivation practices followed by 16.67 per

**Table 2 : Distribution of the respondents according to level of adoption of recommended cultivation practices of okra crop**

Sr. No.	Category	Frequency	Percentage
1.	Low adoption level (upto 20)	19	15.83
2.	Medium adoption level (21 to 29)	81	67.50
3.	High adoption level (30 and above)	20	16.67

cent of the respondents were having high adoption level. Similar type of findings were reported by Waman and

**Table 3 : Constraints experienced by okra growers in adoption of recommended cultivation practices of okra n=120**

Sr. No.	Constraints	Frequency	Percentage
<b>Preparatory tillage</b>			
1.	More labour and more cost for preparing ridges and furrows	32	26.66
2.	No time for making ridges and furrows	36	30.00
3.	Non-availability of labour at a time	53	44.16
4.	More labour charges	88	73.33
<b>Seed and sowing</b>			
1.	No knowledge about seed treatment	72	60.00
2.	Seeds are costly	30	25.00
3.	Non availability of reliable seeds	38	31.66
<b>Intercultivation, fertilizers and irrigation</b>			
1.	Non-availability of fertilizer at proper time	47	39.10
2.	At proper time loan is not available for fertilizer	32	26.66
3.	Chemical fertilizers are costly	75	62.50
4.	Less knowledge about proper dose of fertilizers	50	41.66
5.	Non-availability of labours for intercultivation	24	20.00
6.	Non-availability of water resources for irrigation	20	16.66
7.	Load shedding problem	120	100.00
<b>Plant protection</b>			
1.	Less knowledge about disease and pest identification	47	39.16
2.	No knowledge about insecticides	53	44.16
3.	Sprayers are costly	83	69.16
4.	Insecticides are costly	77	64.16
5.	Less knowledge about correct quantity of insecticide	92	76.66
6.	Lack of knowledge of correct proportion of insecticidal solution	100	83.33

Patil (1998) and Waghmode (2005).

Data presented in Table 3 revealed that, major problem faced by the respondents in adoption of recommended practices of okra was failure of electric supply (100 per cent), followed by lack of knowledge of

correct proportion of insecticidal solution, 76.66 per cent of the respondents felt constraints of lack of knowledge about recommended doses of insecticide, while 73.33 per cent of them had the constraint of more charges for labours.

### **Implications :**

From the present investigation, following implications are drawn for the administrators, policy makers, extension workers and scientists which may help them to accelerate the adoption of recommended cultivation practices by okra growers.

- It was observed in the present study that majority of the okra growers had medium adoption level with respect to cultivation practices of okra. This implies that for enhancing adoption level, they should have also a high level of skill to avoid the difficulty in actual use of the practices. Hence, it is suggested that an organized programme in okra cultivation, trainings, demonstrations and frequent field visits should be taken up by the concerned extension agency so that adoption level of recommended cultivation technology of okra amongst farmers is enhanced.

- The respondents expressed the problem of irregular electric supply, non-availability of loan, non-availability of chemical fertilizers in time, high rates of fertilizers and insecticides. They also face the problem of genuine seed material, non-availability of labours for intercultivation practices etc. Therefore, to overcome all these problems it is suggested that Government should undertake supply of genuine or certified seed material through agricultural university or other government institutes at proper time and at cheaper rate. It is also suggested that farmers may follow co-operative selling system to sell the crop produce.

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Received : October, 2009; Accepted : December, 2009