

Adoption of Recommended Mandarin Orange Production Practices

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ABSTRACT

The present investigation was carried out in an Amravati district of Vidharbha region and found that The Progressive farmers of the village were found to be the most credible source of information for the orange growers. The soil type and use of planting; recommended rootstock use; Application of fertilizer doses and irrigation practice; Total no of irrigation, method of application for manures were the practices partially adopted by more than half of the respondents. However, it could further be seen that majority of the respondents did not adopt the important improved cultivation practices such as; proper harvesting time for fruit (T.S.S: Acidity ratio) was (81.50%) and up to 44% respondent did not adopt the proper time of harvesting. It is due to they can't take the risk in market, as well as lack of awareness but they are totally dependent up on mediator .The required Caco3 and soil pH contain in soil for planting was don't known to 60.50% and 55% respondent respectively. It is also seen that (54.50%) respondent's did not follow soil testing at the time of planting as well as at bearing stage. So, there is a need to adopt the full-improved recommended package of practices for increasing the productivity with quality in mandarin orange.

Key words: Orange growers; Adoption; Progressive farmer

India has accelerated in total annual production of horticultural crops touching over 149 million tones. Today India has emerged as the second largest producer of the fruits i.e. 46 million tones contributing nearly 10% of the world production. The total area in Vidharbha is 146040 ha under Mandarin orange. In an Amravati District area under Mandarin cultivation was 68314 ha i.e. 47% Nagpur Mandarin grown in District; and production from it was 390090 metric tones only. Area under this fruit crop has increased considerably due to implementation of the scheme. Moreover, in recent years from 1990 efforts have been made by Govt. of Maharashtra to promote plantation of fruit crops under Employment Guarantee Scheme (E.G.S.) since i.e.1990-91.

Despite a considerable increase in the area under orange orchard, the production and quality of fruits have been found dwindling because of various problems in adoption of recommendations. Comparative analysis of yield of orange fruit production shows that our orange fruit production per hectare is very low (9-10 tons/ha), with that of developed countries. The unit area production of orange depends mainly on the technical know-how possessed and the extent of its use in production by the orange growers. Also extension programme on various technologies to be transfer with the help of different department but there are gaps in production by the farmer

on his farm. So as to boost up the orange production; latest technology is being continuously developed and recommended for use by the orange grower's. Despite this; the production of orange per hectare in Vidharbha is still low. Therefore, there was need to study the adoption of recommended Mandarin orange production practices.

METHODOLOGY

The present investigation was carried out in an Amravati district of Vidharbha region .A sample of 200 mandarin orange growers was selected randomly from 20 villages from four chooses blocks and from each village 10 Nagpur Mandarin growers as respondents whose orange orchards were in bearing stage. The data were collected with the help of well-structured interview schedule. Before actual investigation for data collection the schedule was pre tested.

Based on the statement of problem and objectives selected for the study, the selection of various concepts and variables were made. The identified concepts for the study were to know the different communication media use for collecting information and extent of adoption of recommended cultivation practices. The data were collected by personally interviewing the sample respondent .The data were checked for completeness, classified, tabulated and analyzed with the help of frequencies and percentages and interpreted in he paragraphs to follow.

RESULTS AND DISCUSSION

Source credibility : It is clear from the Table 1 that the progressive farmer of the village was considered the most creditable sources to the respondent for collecting the information. The grower amongst 11 sources of information utilized them in adoption of various package of practices.

The 20.50 percent respondent ranked first to the progressive farmers of the village followed by plant protection dealers and Agricultural extension officer (16.50 and 11.50 % respectively), Newspaper release (10.50%), Television 9.5% and Village level workers 8.5 %, Neighbourers 5.50 percentage respectively. The results obtained that at the awareness stage; the respondents might have collected information through 11 different sources of information particularly at the time of adoption of production technology. The orange growers preferred more the progressive farmers of the village, plant protection dealer, Agricultural extension officer, Newspaper release, Television, Village level worker as a credible source of information in descending order.

Adoption of Mandarin orange cultivation practices : The data with regards to the adoption of 15 improved orange cultivation practices by the orange growers. It is observed

from Table 2 reveals that complete adoption of recommended cultivation practices means the practices which were adopted by the respondents in majority were observed in respect of required spacing (46%), Time of application for manures (43.50%), Intercrop (38%), Method of application for manures (37.50%), and Bahar treatment for both ambia and mrig bahar (36.50%), Proper pit size and stacking utilizes was (31.50%). While soil type and use of planting (62.50%), recommended rootstock use (62%), Application of fertilizer doses and irrigation practice (54.50%), Total no of irrigation (53%) method of application for manures (50.50%) were the practices partially adopted by more than half of the respondents.

Table 1. Credibility sources of information in the adoption of mandarin orange cultivation practices

S.No.	Sources of information	F	%	Rank
1	Progressive farmers of the villages	41	20.50	I
2	Plant protection dealers	33	16.50	II
3	Agril extension officer	23	11.50	III
4	Newspaper release	21	10.50	IV
5	Television	19	9.50	V
6	Village level worker	17	8.50	VI
7	Radio broad casting	12	6.00	VII
8	Neighbors	11	5.50	VIII
9	Friends	9	4.50	IX
10	Progressive farmers of the other village	7	3.50	X
11	Books/Magazines	7	3.50	XI

Table 2. Practice wise adoption of Mandarin orange

S. No.	Practices	Full Adoption		Partial Adoption		No. Adoption		
		No.	%	No.	%	No.	%	
1	Soil	(i) Soil type	36	18.00	125	62.50	39	19.50
		(ii) Soil pH	12	06.00	78	39.00	110	55.00
		(iii) Caco3	12	06.00	67	33.50	121	60.50
		(iv) Soil testing	30	15.00	61	30.50	109	54.50
2	Seedling for	(i) Root stock use	33	16.50	124	62.50	42	21.0
		(ii) Quality seedling	51	25.50	85	42.50	64	32.00
3	Spacing	(i) Required spacing	92	46.00	87	43.50	21	10.50
		(ii) Pit size	63	31.50	82	41.00	55	27.50
4	Inter crop	76	38.00	82	41.00	42	21.00	
5	Application of manures	(i) Doses	48	24.00	85	42.50	67	33.50
		(ii) Time of application	87	43.50	83	41.50	30	15.00
		(iii) Method of application	75	37.50	101	50.50	24	12.00
6	Application of fertilizer	(i) Doses	36	18.00	109	54.50	55	27.50
		(ii) Time of application	39	19.50	97	48.50	64	32.00
		(iii) Method of application	42	21.00	91	45.50	67	33.50
7	Application of micronutrient	30	15.00	69	34.50	101	50.50	
8	Bahar (Blooming stage)	73	36.50	94	47.00	33	16.50	
9	Water treatment	(i) Practice of Irrigation	39	19.50	109	54.50	52	26.00
		(ii) Total no of irrigation	36	18.00	106	53.00	58	29.00
10	Fruit drop	(i) Causes of fruit drop	35	17.50	83	41.50	82	41.00
		(ii) Control	27	13.50	79	39.50	94	47.00
11	Plant protection	(i) Various pest	33	16.50	88	44.00	79	39.50
		(ii) IPM schedule	33	16.50	67	33.50	100	50.00
		(iii) Serious diseases	42	21.00	87	43.50	71	35.50
		(iv) Control measure over diseases	31	15.50	72	36.00	97	48.50
12	Pruning and Training	(i) Time	45	22.50	82	41.00	73	36.50
		(ii) Importance	48	24.00	82	41.00	70	35.00
13	Supporting/ Staking	63	31.50	91	45.50	46	23.00	
14	Thinning	(i) Awareness	39	19.50	58	29.00	103	51.50
		(ii) Time of thing	55	27.50	76	38.00	70	35.00
15	Harvesting	(i) Time of harvesting	27	13.50	85	42.50	88	44.00
		(ii) Scientific characteristics	12	06.00	24	12.00	163	81.50

However, it could further be seen that majority of the respondents did not adopt the important improved cultivation practices such as; proper harvesting time for fruit (T.S.S: Acidity ratio) Was (81.50%) and up to 44% respondent not adopt the proper time of harvesting. It is due to they can't take the risk in market, as well as lack of awareness but they are totally dependent up on mediator .The required Caco₃ and soil pH contain in soil for planting was don't known to 60.50% and 55% respondent respectively. It is also (54.50%) respondent's not fallow soil testing at the time of planting as well as in bearing stage. Because, they can under stand importance of soil testing and soil suitability, the lack of awareness about thinning seen in 51.50 percent and Due to awareness and

lack of knowledge 50.50 percent respondent not adopted application of micronutrient.

CONCLUSION

The adoption of Mandarin orange growers as noted in this study is supported by the findings made by Bhople et.al (1996),Gomase et.al (1998)and Bhople et.al (1998).Similar findings were also reported by Deshmukh et.al (1998)and Ingle and Bhagawat (1998).Here, it may be pointed out that it is no use to adopt some of the improved practices only and neglecting some other ones. It is necessary to use the complete package of the improved practices of mandarin orange production for reaching maximization in crop yields.

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