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## Resource management behaviour of orange growers for production and marketing of oranges

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### Abstract

This study was carried out in order to ascertain the extent of resources management behaviour and to establish relationship of selected characteristics of orange growers with their resource management behaviour. The present investigation was carried out in Amravati and Nagpur district (Vidarbha region) of Maharashtra. A sample of 240 respondents constituted for the research study. The present study revealed that majority of orange growers (55.00%) has shown about managing the resources to medium extent. The adoption about recommended orange cultivation and economic motivation found to be major significant contributor in resource management behaviour of orange growers. The present study indicates the need for intensive effort by all the concerned to convince and assist the orange growers about efficient management of resources for production and marketing of oranges.

**Keywords:** resource management behaviour, orange growers, orange cultivation

### Introduction

In the recent years Indian Agriculture has witnessed a great transformation resulting in attaining not only self-sufficiency in food grain but also increased commercialization. The focus of agriculture is increasingly shifting from raising production to market orientation and value addition. Shifting focus on increasing crop revenue can potentially sway attention placed on resource management.

Fruit cultivation in India is one such major commercial and business which required efficient management of resources for deriving higher output per unit of input with excellent quality of the produce within short span of time. Orange is one of the most important fruit crops in Vidarbha region of Maharashtra. But inspite of high genetic potential in orange crop and availability of latest technology; the comparative analysis of yield of orange fruit shows that our orange production per hectare is very low (9-10 t/ha) as compared to developed countries. Some of the obvious reason besides other for low yield may be of managing resources while adopting technology.

To be successful, today's orange growers must be able to manage their resources to meet the challenge of varying costs, prices and climatic condition. Orange growers as a manager are constantly making decisions about the ways to put these resources to work in such a way that the orange orchard will be profitable. The efficient resource management will helpful to increase overall orange production, productivity and income in this major orange growing area of Maharashtra. But the Resource management behaviour of orange growers is influenced by various characteristics of orange growers and extent of planning, procurement and utilization of resources. Hence this study is undertaken to know the influence of various variables on resource management behaviour of orange growers for production and marketing of oranges in Vidarbha region of Maharashtra.

### Materials and Method

The exploratory design of social research was used in present investigation. The present study was carried out in Amravati and Nagpur districts which were selected purposively on the basis of higher area under orange cultivation in Vidarbha region of Maharashtra. On the basis of maximum area under orange cultivation, two taluka namely Morshi and Warud from Amravati district and Katol and Narkhed from Nagpur district were selected purposively. Then 6 villages were selected from each taluka having larger area under orange cultivation and 10 orange growers from each selected village were selected by random sampling method. Thus 240 orange growers constituted the sample size for the present study. Data were collected by personally interviewing the respondents with help of pre-tested and structured interview

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schedule. The data collected were tabulated and the statistical tools namely frequency, percentage, correlation and multiple regression analysis were employed for interpretation of the findings.

**Results and Discussion**

The results of the present research work are presented below.

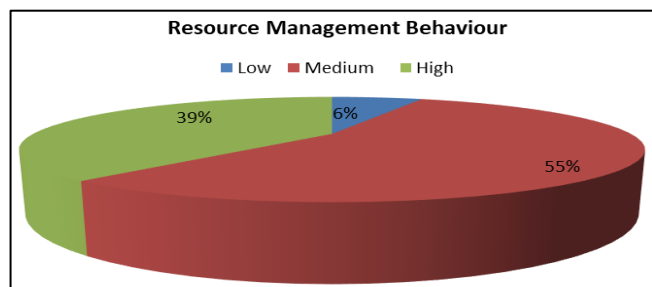
**Resource management behaviour**

**Table 1:** Distribution of the respondents according to their resource management behaviour

Sl. No.	Category	Respondents (n=240)	
		Frequency	Percentage
1.	Low	15	06.25
2.	Medium	132	55.00
3.	High	93	38.75
	Total	240	100.00

It is observed from Table 1 that majority (55.00%) of orange growers have shown about managing the resources to medium extent, whereas, whereas, 38.75 per cent orange growers found to be in high category of resource management behaviour and only 6.25 per cent of them found to be in low category of resource management behaviour.

Thus it could be concluded that majority of orange growers have shown about managing the resources to moderate extent. The above findings are in conformity with the observation of previous researchers Kinkhedikar (2001) and Idhole (2017) [2].



**Fig 1:** Distribution of respondents according to their resource management behaviour.

This shows that there is need to convert the medium extent of resource management behaviour into high extent of resource management behaviour and low into medium extent of resource management behaviour of orange growers. Therefore, all the essential supplies and services for transfer of technology through extension activities should be made available to the orange growers and intensive efforts by all concerned to convince the orange growers about efficient management of resources for production and marketing of oranges in Vidarbha region is needed.

**Relational analysis**

The relevant findings of the relational analysis have been described as under following subheads.

**Correlation analysis:** The correlation analysis was computed to see whether any characteristics of orange growers influence their resource management behaviour for production and marketing of oranges. The correlation of selected independent variables with resource management behaviour of orange growers has been presented in Table 2.

**Table 2:** Coefficient of correlation between selected independent variables of orange growers with their resource management behaviour

Sl. No.	Independent Variable	Correlation 'r' value
		Resource management behaviour
1	Age	0.1206 NS
2	Education	0.1536 *
3	Occupation #	0.1185 NS
4	Land holding	0.4569 **
5	Annual income	0.6956 **
6	Age of orchard	0.2883 **
7	Size of orchard	0.5633 **
8	Experience in orange cultivation	0.2105 **
9	Method of irrigation #	0.4896 **
10	Mode of marketing #	-0.1051 NS
11	Source of technical guidance	0.5386 **
12	Innovativeness	0.8580 **
13	Economic motivation	0.8786 **
14	Risk orientation	0.7693 **
15	Knowledge	0.8911 **
16	Adoption	0.9374 **

# - spearman rank correlation used  
 NS- Non significant  
 \* - Significant at 0.05 level of significance  
 \*\* - Significant at 0.01 level of significance

Relational analysis in respect of resource management behaviour with the variables under study revealed that adoption about recommended orange cultivation practices (0.9374), innovativeness (0.8580), knowledge about recommended orange cultivation practices (0.8911), economic motivation (0.8786), risk orientation (0.7693), annual income (0.6956), size of orchard (0.5633), sources of technical guidance (0.5386), land holding (0.4569), method of irrigation (0.4896), age of orchard (0.2883), experience in orange cultivation (0.2105) were found to be positive and established highly significant correlation with the resource management behaviour of the respondents at 1 percent level of significance. Further it was revealed that, education (0.1536) established positive and significant correlation with the resource management behaviour of the respondents at 5 percent level of significance.

The characteristics, age (0.1206), occupation (0.1185) and mode of marketing (-0.1051) were found to be non significant and did not established any significant correlation with the resource management behaviour of the respondents.

It is implied that knowledge and adoption about recommended orange cultivation practices, innovativeness, economic motivation, risk orientation, annual income, size of orchard, sources of technical guidance, etc., has a positive impact on better resource management for production and marketing of oranges which in turn helped increasing yield and income.

These finding were confirmed by Sardar (2014) and Idhole (2017) [2].

**Multiple regression analysis:** In the present study, the multiple regressions analysis was done to ascertain the relative contribution of independent variables towards variation in the resources management behaviour of orange growers. The result of multiple regression analysis of independent variables with resource management behaviour was presented in Table 3

**Table 3:** Multiple regressions analysis of selected independents variables of orange growers with their resource management behaviour.

Sl. No	Independents variables	Resource management behaviour		
		Coefficients of regression	Standard error	't' value
1	Age	0.0088	0.0492	0.1795 NS
2	Education	0.0824	0.3104	0.2655 NS
3	Occupation	0.2435	0.3152	0.7726 NS
4	Land holding	0.1584	0.1355	1.1688 NS
5	Annual income	0.0343	0.1374	0.2493 NS
6	Age of orchard	0.1271	0.0871	1.4591 NS
7	Size of orchard	-0.0019	0.0008	-2.3408 *
8	Experience in orange cultivation	-0.0735	0.0879	-0.8358 NS
9	Method of irrigation	0.4892	0.3648	1.3409 NS
10	Mode of marketing	-0.1074	0.9037	-0.1188 NS
11	Source of technical guidance	0.0566	0.0824	0.6871 NS
12	Innovativeness	0.5257	0.2337	2.2499 *
13	Economic motivation	0.7231	0.1436	5.0365 **
14	Risk orientation	0.0814	0.1196	0.6811 NS
15	Knowledge	0.2625	0.1060	2.4773 *
16	Adoption	0.5416	0.0656	8.2608 **

$R^2 = 0.9147$

\* Significant at 5% value

\*\* Significant at 1% value

It is evident from the Table 3 that, all sixteen independents variables put together explained a significant amount of variation to a proportion of 91.47 percent in resource management behaviour of orange growers.

It also revealed that out of sixteen independent variables, two variables i.e adoption about recommended orange cultivation practices and economic motivation found positively significant at 0.01 level of probability. Hence, these variables were highly important in predicting resource management behaviour of orange growers.

Knowledge about recommended orange cultivation practices and innovativeness were found significant positive contributors, while size of orchard was significant negative contributors at 0.05 level of probability.

It means that the orange growers with higher knowledge and adoption about recommended orange cultivation, more economic motivation, more innovativeness and optimum size of orchard were subjected to better resource management.

### Conclusion

It may be concluded that majority of orange growers have shown about managing the resources to medium extent. This implies that there is need to orient and assist these orange growers for efficient management of resources for production and marketing of oranges. Hence the extension agencies should organize educational programmes like demonstrations, training, farmer day, seminars, expert discussion, etc., so as to convince the orange growers about important aspects of resource management behaviour. The results of relational analysis clearly indicate that almost all selected variables except age, occupation and mode of marketing established significant relationship with the resource management behaviour of the orange growers. The study also revealed that adoption about recommended orange cultivation practices and economic motivation of orange growers were found highly important in predicting the resource management behaviour of orange growers. Hence administrators concerned must give special attention on adoption about recommended orange

cultivation practices and economic motivation of orange growers to enhance the resource management behaviour of orange growers.

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