

ADOPTION LEVEL OF RECOMMENDED PRODUCTION TECHNOLOGY OF MANGO IN LUCKNOW DISTRICT OF UTTAR PRADESH

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ABSTRACT

The study was conducted in Lucknow District of Uttar Pradesh to measure adoption level of recommended production technology of mango in Lucknow district of Uttar Pradesh. A total number of 120 respondents were selected randomly from twelve villages under malihabad block because productivity, production and area under mango cultivation were found to be maximum. The data were collected by personnel interview method by using pre structured interview schedule and later appropriate statistical analysis was done to find out the meaningful results. The findings of the study revealed that 65 per cent of the respondents belonged to the middle- aged group, majority of the respondents (45 %) belong to the small land holding and majority of the respondents belongs to high level of annual income i.e. above 80,000. The findings also revealed that 58.33 per cent of the respondents had medium level of adoption of recommended production technology of mango followed by 10.83 per cent and 30.83 per cent of the respondents with low and high levels of adoption respectively.

KEYWORDS: *Adoption, Production Technology of Mango*

Article History

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INTRODUCTION

Agriculture is one of the most significant sectors of the Indian Economy. Agriculture is the only means of living for almost two thirds of the workers in India. The agriculture sector of India has occupied 43 per cent of India's geographical area, and is contributing 16.1 per cent of India's GDP (Gross Domestic products). Agriculture still contributes significantly to India's GDP despite decline of its share in India's GDP. There are number of crops grown by farmers. These include different food crops, commercial crops, oil seeds etc. (Nand 2001)

Apart from making a variety of fruits available for human consumption, establishment of orchards is imperative to maintain ecological balance and diversifying the cropping pattern. Among the non-traditional agricultural commodities, fresh vegetables and fruits can play a pivotal role in contributing to bridge the ever widening trade gap of India. Moreover, the decline in average size of holding and commercialization of agriculture further justifies the development of horticulture in India. Fruits have a great importance in human diet. It is stated that the standard of living of the people of a country can be judged by its production and per capita consumption in the world. Though India is the second largest producer of fruits (71.51 million tonnes) in the world after China (109.61 million tonnes), its share in the world fruit production is 12 per cent (Anonymous, 2009-10). Although India is unable to cater to the nutritional demands of the ever increasing population, even then, in the present scenario the per capita availability of fruits in the country is 46 gm per day as against 92 gm per

day recommenced by the ICMR (Indian Council of Medical Research). This may be due to very low productivity and increasing population pressure of the country. India ranks first among world's mango producing countries accounting for about 50 % of the world's mango production. Other major mango producing countries include China, Thailand, Mexico, Pakistan, Philippines, Indonesia, Brazil, Nigeria and Egypt

Mango (*Mangifera indica* Linn) is the most important fruit of India and is known as "King of fruits". The fruit is cultivated in the largest area i.e. 2,312 thousand ha and the production is around 15.03 million tons, contributing 40.48 % of the total world production of mango. Mango is grown almost in all the states of India. Uttar Pradesh tops the list of mango producing states. Other major producing states are Andhra Pradesh, Maharashtra, Karnataka, Bihar and Gujarat. Rest of the states has quite less production. Major producing states with production of last three years: Uttar Pradesh is the leading mango producing state with production of 3,623.22 thousand tons followed by Andhra Pradesh state which has production of 3,363.40 thousand tons. Then comes Karnataka 1,778.75 thousand tons, followed by Bihar and Gujarat i.e. 1,334.87 and 911.30 thousand tons respectively.

Development of India cannot be conceived without the development of villages, where agriculture is the main occupation of the people. Indian agriculture is not a business, but a way of life. Agriculture is the main source of livelihood of more than 70.00 per cent of the population and contributes 50.00 per cent of the national income. Therefore, the development of agriculture has been given priority in the national planning after independence. Indian agriculture consists of different crops which are cultivated in different seasons and in different conditions i.e. dry land and irrigated.

2500000 ha Land used for cultivation of the fruit in the state - Lucknow, Pratapgarh, Allahabad, Bulandshahar, Saharanpur, Faizabad, Varanasi, Moradabad, Barabanki, Meerut, Unnao, Sitapur, Hardoi, Gorakhpur, Basti, JP Nagar and Mathura are the major mango producing belts 700000 tones Average annual production of mangoes in Malihabad region of Uttar Pradesh. The Dusheri variety of the fruit is grown here. 23589 ha. Land used for cultivation of mangoes in tehsils of Malihabad, Mall and Kakori. Mallihabad is said to be the largest contributor to the total mango production (from the mango belt) with over 10,000 hectares of land engaged in mango farming. (Koli and Bhardwaj, 2018)

RESEARCH METHODOLOGY

Descriptive research design was adopted for the study as it describes the characteristics or phenomena that are being studied. The present study was conducted in Lucknow district of Uttar Pradesh. Out of 9 blocks in Prayagraj district, malihabad block is selected purposively based on maximum area covered under mango cultivation. From the selected block, twelve villages were selected purposively based on the maximum area covered under vegetable cultivation.

OBJECTIVES OF THE STUDY

- To ascertain the socio economic profile of the respondents.
- To assess the level of adoption of recommended production technology by mango growers.

RESULTS AND DISCUSSIONS

Table 1, it is shown that 65 per cent of the respondents belonged to the middle age- group. 25 per cent of the respondents had middle school level of education. In terms of annual income, 54.17 per cent of the respondents had high level of income in which 37.50 per cent had land holding of 1 ha to 2 ha. It is evident that majority of the respondents (69.17 %) lived in joint family. It is also evident that 49.17 per cent of the respondents possessed a medium level of sources of information. It is seen that in terms of extension contacts 39.17 per cent of the respondents possessed medium level of extension contacts. (Sing *et al* 2012)

It is evident from Table 2 that 92.50 per cent of the respondent adopted the land preparation. Regarding 89.17, 87.50 and 75.00 % of respondents adopted harvesting, sowing method and sowing time, respectively. In case of spacing, 43.33 per cent respondent adopted recommended spacing. 65.00 percent respondent had adopted the improved varieties of mango. In case of recommended manure and fertilizer application, 50.00 per cent of the respondent had adopted FYM application while 63.33 per cent respondent had adopted the recommended chemical fertilizer application, and weed management 60.83 percent of the respondent had adopted them. 52.50 per cent respondents had adopted recommended water management practices. 59.17 percent of the respondent had adopted the recommended control measures of disease & insect pest. Regarding production of Mango per cent of the respondent adopted the yield. (Suman 2013).

It has been concluded from the present study that the analysis of the data presented in Table 3 revealed that majority of (58.33 %) of the respondent had medium level of adoption of the cultivation practices followed while majority (30.83 %) of the high and low (10.83 %) level adoption of recommended cultivation practices. (Suman 2013)

It can be seen from the Table 4 that the variables namely age, income, land holding, annual income, family size and type were positively and significantly correlated with the adoption of recommended cultivation practices of mango. Therefore, the null hypothesis was rejected for these variables. Whereas, the variable education was negatively and non-significantly correlated with the adoption of mango growers about recommended cultivation practices. Therefore, the null hypothesis is accepted for this variable.

Table 1: Socio-Economic Profile of the Respondents

S. No	Independent Variables	Category	Frequency	Percentage
1.	Age	Young age (Upto 35 years)	12	10.00
		Middle age (36-55 years)	78	65.00
		Old age (above 55 years)	30	25.00
2	Educational qualification	Illiterate	5	4.17
		Primary school	10	8.33
		Middle School	30	25.00
		High School	30	25.00
		Intermediate	25	20.83
		Graduate	15	12.50
		Post Graduate	5	4.17
3	Land holding	Marginal(Less than 1 ha)	38	31.67
		Small(1 to2 ha)	45	37.50
		Large(More than 2 ha)	37	30.83
4	Income Level	Low(Up to Rs. 40, 000)	20	16.67
		Medium(40,001-80,000)	35	29.16
		High(above 80000)	65	54.17
5	Family size	Small (upto 5 member)	37	30.83
		Large (above 5 member)	83	69.17

Table 1 Contd.,

6	Family type	Nuclear family	37	30.83
		Joint family	83	69.17
7	Source of Information	Low (3-5)	22	18.33
		Medium (6-7)	59	49.17
		High (8-9)	39	32.50
8	Extension contacts	Low (3-5)	42	35.00
		Medium (6-7)	47	39.17
		High (8-9)	31	25.83

Table 2: Adoption Level of Farmers about Recommended Production Technology of Mango

S. No	Mango Production Practices	Adoption	
		F	(%)
1.	Land preparation	111	92.50
2.	Sowing method	90	75.00
3.	Planting Practices	105	87.50
4.	Vegetative Propagative	83	69.17
5.	Varieties	78	65.00
6	Spacing	52	43.33
7.	Inter Cropping	56	46.67
8.	Recommended FYM dose	60	50.00
9	Recommended fertilizer application	76	63.33
10.	Training Pruning	63	52.50
11.	Weed management	73	60.83
12.	Plant protection	71	59.17
13..	Harvesting	107	89.17

Table 3: Overall Adoptions of Mango Growers about Recommended Cultivation Practices

Sl. No.	Adoption Level	No. of Respondent	Total Percent
1	Low	13	10.83
2	Medium	70	58.33
3	High	37	30.83
	Total	120	100.00

Mean=78.85 SD.=23.96

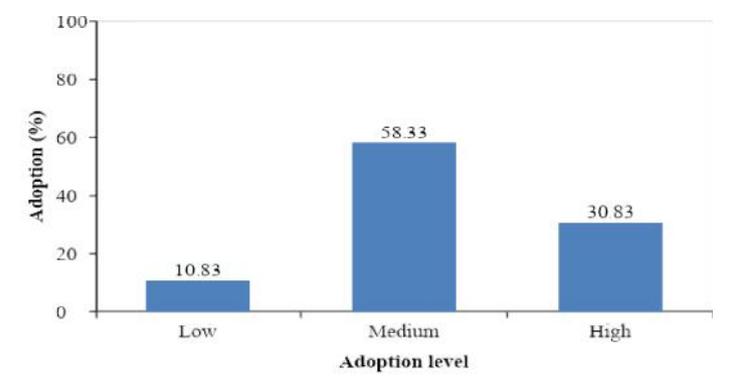
**Figure 1: Overall Adoptions of Mango Growers about Recommended Cultivation Practices.**

Table 4: Coefficient of Correlation of Selected Characteristics of the Respondents with their Adoption

Sl. No.	Variables	Correlation Coefficient (r)
1	Age	0.280582*
2	Income	0.190291**
3	Education	-0.10097 ^{NS}
4	Size of land holding	0.346866*
5	Family size	0.212327**
6	Family type	0.147713NS
7	Source of information	0.999026*
8	Extension contact	0.390704**

*Correlation is significant at the 0.01 level of probability

**Correlation is significant at the 0.05 level of probability

NS= Non-significant

CONCLUSIONS

It is concluded that majority of the respondent's belonged to middle-aged group, having education up to middle school level, having medium level annual income. Further, majority of the respondents belonged to joint type family with land holding of more than 1 to 2 hectares. Majority of the respondents had medium levels of extension contact. It was found that most of the respondents had medium level of adoption about recommended production technology of mango. It was found that independent variables like namely age, income, land holding, annual income, family size and type were positively and significantly correlated with the adoption of recommended cultivation practices of mango. It is suggested that government should provide training needs of farmers in establishment of mango orchards.

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