



Adoption of recommended lime cultivation practices by lime growers of Bijapur district

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ABSTRACT

The study was conducted in Indi Taluk of Bijapur district as it ranks first in area and production in the state. From 160 respondents the data were collected by using prestructured interview schedule. The majority of the respondents belonged to medium category of adoption. The key practices contributing to yield and quality of fruits were fully adopted by majority of the respondents. The practices like mulching and green manuring were not adopted by majority of the farmers. The importance of these practices were not convinced by the lime growers. Chemical fertilizer application was partially adopted by majority of the growers. Among 13 independent variables selected for the study, 11 variables were found to be positive having significant relationship with the adoption of recommended lime cultivation practices by lime growers

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INTRODUCTION

Horticultural crops are not new to mankind. Horticultural crops contribute to human diet, provide more energy, supply vitamins, certain essentials minerals like iron, calcium, phosphorus, which are necessary for maintaining good health and resistance to diseases. Citrus fruits have a prominent place among popular and extensively grown tropical and sub-tropical fruits. Citrus fruits possess greater adaptability to different climatic conditions. Lime provides vitamins (vit-C) minerals and many other essential substance which are required for human health. In our country, Kagzi lime (*Citrus aurantifolia* Swingle) is cultivated extensively on commercial scale and is more popular than lemon. Bijapur in Karnataka is major lime growing district with an area of 1600 ha producing 24000 t. It is yet to exploit its potentiality for growing lime in extensive scale. The average yield per plant is 800 fruits, which is very less compared to the estimated yield of 1000-2000 fruits per plant per year. So, there is lot of scope for increasing the production of lime by increasing.

METHODOLOGY

The research study was conducted in purposively selected Indi Taluka of Bijapur district as it ranks first in area and production of lime in Karnataka and as well in Bijapur district. The list of lime growers was obtained from Department of Horticulture and eight villages purposively were selected from Indi Taluk wherein major area under lime cultivation was practicing. From each selected village, 20 farmers who had lime orchard of 10 year old were selected thus total consisting of 160 respondents. The data were collected by using pre-structured schedule prepared in consultation with scientists of University and State Department of Horticulture. The data were analysed by using suitable statistical tools frequency, percentage and correlation coefficient.

On this background, it will be more appropriate to understand the multi-dimensional behaviour of farmers to induce adoption of recommended cultivation practices by large majority of farmers on a large scale and in a sustained manner. But the research studies which throw light on the existing cultivation

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pattern of lime and relation of socio-economic characteristics with adoption of recommended cultivation practices particularly in Bijapur district of Karnataka state.

RESULTS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads:

Categorization of respondents based on their adoption of recommended cultivation practices of lime:

It is observed from Table 1 that majority of the respondents (70.62%) belonged to medium adoption category followed by high adoption category (20.63%). This might be due to the reason that lime being an traditionally grown in this area and farmers were well versed with many of the cultivation practices and it is one of the best suited commercial fruit crop in hot climate

Adoption category	Frequency	Percentage
Low	14	8.75
Medium	113	70.62
High	33	20.63
Total	160	100.00

conditions and less risky crop, hence majority of the farmers belonged to medium adoption category. The results are in conformity with Raghavendra (1997) in arecanut crop.

Practice wise adoption of recommended lime cultivation practices by lime growers:

It is revealed from Table 2 that majority of the farmers had fully adopted the practices in which age of the seedlings (90.62%), digging of pits (79.37%), number of plants per hectare (79.37%), spacing (81.87%), irrigation (73.75%), time of planting (75.00%), soil type (66.87%), training and pruning (65.62%) and time of fertilizer application (65.00%). Majority of the farmers expressed during the survey that there were the very important practices which were contributing for increasing yield and quality of fruits. Similar results were reported by Birajdar (1999).

Further, it was very interesting to note that majority of the respondents not adopted the practices like green manuring (73.13%), mulching (80.63%), and fertilizer dose 78.75 per cent of respondents partially adopted. The probable reason for this might be that the farmers were not convinced about the importance of green manuring and mulching as lime is a traditional fruit crop of this area and they use only FYM and they are in the notion that use of chemical fertilizer reduces the age of the plants

Sr. No.	Recommended cultivation practices	Adoption					
		Full		Partial		Non	
		No	%	No	%	No	%
1.	Soil type	107	66.87	53	33.13	-	-
2.	Digging of pits	127	79.37	21	13.13	12	7.50
3.	Pit size	49	30.63	99	61.87	12	7.50
4.	Spacing	131	81.87	29	18.12	-	-
5.	No. of plants/ha	127	79.37	33	20.63	-	-
6.	Filling of pits	89	55.62	50	31.25	21	13.13
7.	Time of planting	120	75.00	25	15.62	15	9.38
8.	Age of seedlings	145	90.62	15	9.38	-	-
9.	Training and pruning	105	65.62	37	23.13	18	11.25
10.	Intercropping (initial upto 4 years)	88	55.00	47	29.37	25	15.63
11.	Green manuring	12	7.50	31	19.37	117	73.13
12.	FYM application	113	70.62	47	29.38	-	-
13.	Fertilizer dose	21	13.13	126	78.75	13	8.12
14.	Time of fertilizer application	104	65.00	45	28.12	11	6.88
15.	Plant protection measures	50	31.25	110	68.75	-	-
16.	Irrigation	118	73.75	42	26.25	-	-
17.	Mulching	15	9.37	16	10.00	129	80.63
18.	Boardeaux paste application	45	28.12	28	17.50	87	54.38

Table 3: Correlation co-efficient of profile of respondent with extent of adoption of recommended lime cultivation practices by lime growers (n=160)

Sr. No.	Profile of respondents	γ value
1.	Age	0.5831 **
2.	Education	0.5167 **
3.	Land holding	0.4133 **
4.	Annual income	0.2988 **
5.	Farming experience	0.3321 **
6.	Size of orchard	0.1889
7.	Age of orchard	0.3212 **
8.	Socio-economic status	0.5882 **
9.	Social participation	0.4932 **
10.	Management orientation	0.4481 **
11.	Innovativeness	0.3992 **
12.	Sources of information	0.3616 **
13.	Infrastructure facility	0.1613

** Significant at 0.01 level of probability

and also keeping quality of fruits hence they tend to adopt less dose of chemical fertilizers.

Correlation co-efficient of profile of respondents with extent of adoption of recommended lime cultivation practices by lime growers:

It is evident from Table 3 that the independent variable namely age, education, land holding, annual income, farming experience, age of orchard, socio-economic status, social participation, management orientation, innovativeness and sources of information were significant and positively related at 0.01 level of probability with adoption of recommended cultivation practices of lime. Similar findings were reported by Gomase *et al.* (1998).

Conclusion:

Most of the lime growers belonged to medium level of adoption category and majority of the growers were fully convinced and adopted the key practices like age of seedlings, spacing, digging of pits and number of plants per hectare. As lime is one of the traditional fruit crops of this region, farmers use FYM and adopt partial doses of chemical fertilizers (78.75%). The practices like green manuring and mulching were not adopted by majority of the respondents.

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