Adoption behaviour of farmers regarding improved cultivation practices of Pomegranate crop in Chitradurga district of Karnataka

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Abstract: *Pomegranate is an important fruit of tropical and subtropical regions of India. The wide adaptability, hardy nature, low maintenance cost, steady and high yields, fine table purpose better keeping quality, and plants go through rest period when there is scarcity of irrigation water. These are some of the qualities which make this fruit crop ideally suitable for semiarid and arid regions. The technologies vary from farmer to farmer according to their personal and socio-economic characteristics, perceived training needs, availability of factors of production and the problems in adoption of improved cultivation practices of pomegranate Therefore, an appropriate understanding of extent of adoption improved cultivation practices and the constraints analysis would help to arrive at appropriate extension and research strategies to increase the rate of adoption. Keeping this in view a study was conducted to know the adoption of improved cultivation practices of pomegranate growers in chitradurga district, Karnataka. A survey was conducted by interview method from pomegranate growers to elicit information regarding adoption level of improved cultivation practices of pomegranate. It was revealed that majority of the respondents (50.83%) had medium adoption level about the improved cultivation practices of pomegranate. Land holding and annual income did not influence the level of adoption, age had negative and significant correlation with level of adoption and education, farming experience, mass media exposure, innovativeness had registered positive and significant correlation with level of adoption at 1 per cent level of significance.*

Key Words: *Pomegranate, Adoption Behaviour, Improved cultivation practices.*

1. INTRODUCTION:

Pomegranate (*Punica granatum)* is a fruit bearing deciduous shrub belongs to the family Lythraceace that grows between 5 and 10m it is a non-climacteric fruit and one of the drought resistant horticultural crops, has proved to be the best profitable crop under dry land conditions. Pomegranate is an important fruit of tropical and subtropical regions of India. The wide adaptability, hardy nature, low maintenance cost, steady and high yields, fine table purpose better keeping quality, and plants go through rest period when there is scarcity of irrigation water. These are some of the qualities which make this fruit crop ideally suitable for semiarid and arid regions. Pomegranates are cultivated on commercial scale in Chitradurga district. It is the major Pomegranate growing district in South Karnataka. It ranks fourth in the state with respect to total area under pomegranate. Pomegranate being a dry land Horticultural crop is gradually becoming popular with the farmers of the region. These reasons led to the choice of Chitradurga district as the area of study. It is important to know the farmers adoption level of improved cultivation practices of pomegranate So, to know the adoption level, a study entitled ‘‘Adoption behaviour of farmers regarding improved cultivation practices of pomegranate cultivation in Chitradurga district of Karnataka’’ has been conducted.

2. LITERATURE REVIEW:

Bandare et al, (2013) showed that 64.17% of the sweet orange growers had medium level of adoption of recommended packages of practices while 20.08% of the respondents had low adoption and 15% had high level of adoption.

Vinod anavrat (2015) revealed that growers with large land holdings were better adopters due to increased scientific orientation and better extension contacts.

Nemade (2007) stated that 59.38% respondents were educated up to secondary level, 60% of the respondents belong to medium category annual income and 61.67% mango growers had medium level social participation.

Waghmode et al (2013) observed that nearly two third (60.83%) of pomegranate growers belonged to middle are between 33 to 56 years, more than one third (37.5%) of pomegranate growers had medium land holding 4.01 to 10 ha, more than 77.66% of pomegranate growers had used medium sources of information.

3. RESEARCH METHODOLOGY:

The present study was undertaken in Challakere taluk of Chitradurga district, Karnataka. A Pre-structured interview schedule was administered on 120 Pomegranate growers to gather the general and specific information,

highlighting on the Adoption of Improved cultivation practices of pomegranate crop. The data was further analyzed and tabulated by calculating frequency, percentage and Correlation.

4. RESULT:

The results obtained of the present study and relevant discussion have been presented under following heads:

Socio-economic status of respondents:

Table.1:

Variables	Category	Frequency	Percentage
Age	Young age (20-35 years)	34	28.33
	Middle age (36-50 years)	70	58.33
	Old age (>50 years)	16	13.34
Education	Illiterate	29	2416
	Primary school (1^{st} to 7^{th})	41	34.16
	High school (8^{th}-10^{th})	35	29.16
	Intermediate	10	8.3
	Graduate and above	5	4.22
Land holding	Small size (1-3) acre	37	30.83
	Semi medium (3-5) acre	55	45.83
	Medium size (5-8) acre	22	18.34
	Large size (above 10) acre	6	5.00
Farming experience	Low (1-10) years	34	28.33
	Medium (10-20) years	73	60.83
	High (>20 years)	13	10.84
Annual income	Low (1-3 Lakh)	38	31.66
	Medium (3.1-6 Lakh)	52	43.33
	High (Above 6 lakhs)	30	25.00
Mass media exposure	Low (0-0.96)	38	31.66
	Medium (0.97-2.19)	64	53.34
	High (2.20-3.41)	18	15.00
Innovativeness	Low (0-1.66)	53	44.16
	Medium (1.67-3.32)	48	40.00
	High (3.33-4.98)	19	15.83

Table 1 indicates that majority (58.33 %) respondents belong to middle age group i.e. (36-50) years. About 34.16 per cent had education up to primary school, about 45.83 per cent were having medium size of land holding. Majority of the respondents (60.83%) had medium farming experience About 43.33 per cent respondents had (3.1-6) lakh annual income, Majority of the respondents had medium level of mass media exposure (53.33%) About 44.16 per cent respondents had low level innovativeness.

Level of adoption of the respondents regarding improved cultivation practices of pomegranate crop:

Table.2:

Level	Frequency	Percentages
Lowest level (39-44)	32	26.66
Medium level (45-49)	61	50.83
High level (50-54)	27	22.5
Total	120	100.00

Above table 2 indicates that about 50.83% respondents have medium adoption level regarding improved pomegranate cultivation practices followed by 26.66% low level of adoption and 22.5% high level of adoption respectively. Similar finding is also reported by **Sontakke Dipak Ukandrao (2017).**

Relationship between characteristics of farmers with adoption level:

Table.3:

Sl. No.	Independent variables	'r' value
1.	Age	-0.283^{**}
2.	Education	0.318^{**}

3.	Farming experience	0.398^{**}
4.	Land holding	0.031^{NS}
5.	Annual income	0.053^{NS}
6.	Mass media participation	0.255^{**}
7.	Innovative proneness	0.399^{**}

*** = Significant at 0.05 % level**
****= Significant at 0.01 % level**
NS= Non-Significant

It was observed from the table 3 age were negatively and significantly related with adoption level of pomegranate growers at 0.01% level of significance, while other variables such as land holding, annual income had no significant relationship with adoption level of pomegranate growers. Variables like education, farming experience, mass media participation and innovative proneness were found to be having positively significant relationship with adoption level of the respondents.

5. CONCLUSION:

It is concluded that majority of the respondents were middle aged people and majority of them were having education up to primary level and majority of them were having medium level of farming experience, risk orientation, market orientation, economic orientation, mass media exposure and majority of them were having low level of extension contact, innovativeness, scientific orientation majority of them had medium level of adoption regarding improved cultivation practices of pomegranate crop. Age were negatively and significantly related with adoption level of pomegranate growers at 0.01% level of significance, while other variables such as land holding, annual income had no significant relationship with adoption level of pomegranate growers. Variables like education, farming experience, mass media participation and innovative proneness were found to be having positively significant relationship with adoption level of the respondents. So, in order to increase their adoption level, Extension dept. should make integrated extension efforts (trainings, demonstrations, field days, literatures etc.) to provide the required technical knowledge in order to adopt improved cultivation practices of pomegranate growers. The future prospects are Study of possibilities of export marketing for pomegranate. Capacity Building programmes for pomegranate growers. Study on integrated pomegranate based farming system for sustainable agriculture. Development of suitable marketing strategies for pomegranate growers. This study was conducted within the time and resource limitations of a student researcher. But there is further scope for serve and action research in this field.

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