Adoption of recommended grape cultivation practices by the grape growers

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ABSTRACT

Grape is important fruit crops and having good prospects in Maharashtra. However, the area under grape is increasing day by day. It is necessary to find out the knowledge level and adoption of the recommended grape cultivation practices by the grape growers for developing new suitable strategy, to overcome the constraints faced by them in knowledge and adoption of recommended grape cultivation practices by the grape growers. The present study was conducted in Latur district from Marathwada region of Maharashtra State. A multistage sampling was used to select tahsils, villages and grape growers. The sample was of 120 respondents and they were interviewed, personally to collect the data with the help of structured and pretested interview schedule. The collected data were processed and statistically analysed. The co-efficient of correlation was used to find out the relationship between the selected independent and dependent variables. The study revealed that higher proportion of the grape growers had medium farming experience 14 to 27 years were educated up to secondary school level, had semi-medium size of land holding and medium about area under grape. Majority of them had annual income Rs. 1,57,001 to 4,80,000/. Majority of the grape growers were having 'medium' social participation, use of sources of information, risk orientation, market orientation and medium level of extension contact. It was observed that the majority of the grape growers had medium level of knowledge and adoption of recommended grape cultivation practices. Study revealed that with the increased levels of farming experience education, land holding, area under grape, annual income, social participation, use of sources of information, risk orientation, market orientation and extension contact of grape growers, level of knowledge and adoption of recommended grape cultivation practices of grape also increased. The study portrayed that the the most of the grape growers reported the non-availability of seedling in time followed by problem of load shedding of electricity, Shortage of FYM / compost, high cost of plant protection measure and shortage of skilled labour. Most of the grape growers fallowed problem about high cost of seedling, salty water, high cost and non availability of sufficient chemical fertilizers in time. Majority of grape growers had incomplete knowledge about improved grape cultivation.

INTRODUCTION

Grape (*Vitis vinifera* L.) is a temperate fruit crop and also cultivated under tropical and subtropical regions in the world. It was originated in Asia Minor in the region between Black Sea and Caspian Sea which belongs to the family Vitiaceae. India is fast emerging as one of the major grape growing countries in the world. In India it is cultivated under temperate, subtropical and tropical climates. About less than 2 per cent grape production in India is exported successfully to Europe, USA, Middle East and South East of Asian countries, as against 0.1 per cent of all fruits. Maharashtra, Karnataka, Punjab, Andhra Pradesh, Tamil Nadu and Haryana are the major grape growing states in India. Maharashtra is the leading grape producing state.

The commercial cultivation was initially confined to Nasik, Pune, Sangli, Satara and Ahmednagar in Western Maharashtra. However, it has been now well cultivated in Latur, Osmanabad and Beed districts of Marathwada region. Raisins are golden, green or black coloured delicacies which are favourites of

everybody, especially children. They have wrinkled skin surrounding chewy flesh that table test like a burst of sugary sweetness. Raisins are made by dehydrating grapes in a process using the heat of sun or a mechanical process of oven drying. Among the most popular type of raisins are Thomson seedless and Tash-e-Ganesh. The present study was undertaken with the objectives: to study the adoption of grape growers about recommended grape cultivation practices and to find out the relationship of personal characteristics of grape growers with their adoption.

METHODS

The multistage sampling technique was used to select district, tahsils, villages and grape growers. The study was conducted in Latur district of Marathwada region (M.S.) purposively on the basis of area and market available in this district. There are ten tahsils in Latur district out of which four tahsils *i.e.* Ausa, Chakur, Renapur and Latur were selected purposively on the basis of maximum area under grape cultivation. For the purpose of the study, five villages from each selected tahsil were purposively selected with lottery method by preparing the list of the villages where more than six grape growers were available. From these 20 selected villages, six grape growers from each village were selected randomly which comprised a sample of 120 grape growers for the study.

OBSERVATIONS AND ANALYSIS

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

Distribution of the Adoption of grape growers about recommended grape cultivation practices:

It was vivid from the data presented in Table 1 that majority 71.66 per cent of the grape growers were in the medium level of adoption of grape cultivation while, 16.67 per cent and 11.67 per cent of them were in the low and high level of adoption, respectively.It is clear that majority of the grape growers had medium level of adoption which might be due to their medium level of knowledge possession. This finding is similar to those observed by Dhakane (2005) and Nemade (2007).

Table 1 : Distribution of the adoption of grape growers about recommended grape cultivation practices		
Adoption level	Frequency	Percentage
Low (up to 69.80)	20	16.67
Medium (69.81 to 84.93)	86	71.66
High (84.94and above)	14	11.67

Correlation analysis:

Co-efficient ('r') of correlation was analysed to show the relationship of personal characteristics of the grape growers with their adoption (Table 2).

Table 2 : Correlation co-efficient ('r') analysis of knowledge with personal characteristics	
Independent variables	Correlation co-efficient ('r') Adoption
1. Farming experience	0.540**
2. Education	0.278**
3. Land holding	0.410**
4. Annual income	0.282**
5. Area under grape	0.174*
6. Social participation	0.832**
7. Use of sources of information	0.447**
8. Risk orientation	0.177*
9. Market orientation	0.677**
10.Extension contact	0.404**

* and ** indicate significance of values at P=0.05 and 0.01, respectively

Farming experience and adoption:

It was noticed in the results of present study that the correlation co-efficient (0.540) showed the positive and highly significant relationship between the farming experience and level of adoption of recommended grape cultivation practices. It clearly indicates that increase in farming experience, increased the level of adoption of grape cultivation practices.The findings of the study are similar to that of Hinge (1997), Ghodeswar (2006) and Nemade (2007).

Education and adoption:

The data of results of the present study clearly explain that the correlation co-efficient (0.278) indicated the positive and highly significant relationship between the grape growers education and their level of adoption of grape cultivation practices. It can, therefore, be inferred that higher the education of grape growers higher will be the adoption level of the grape cultivation practices. The level of education also helps to an individual to get himself acquainted with the skill that are required for undertaking the modern techniques of agriculture. This might be resulted in establishing a positive and highly significant relationship of education with adoption level. The findings are supported by the study of Bhosale (2004), Nemade (2007).

Land holding and adoption :

The data delineated that land holding was positively and significantly (0.410) related with the level of adoption of recommended grape cultivation practices. This clearly shows that increase in land holding also increased the level of adoption of cultivation practices of grape. Grape growers with larger size of land holding could afford to use modern technology for better farming due to which land holding might be established

positive and significant relationship with adoption of grape cultivation practices. This finding is in line with findings of Bhosale (2004).

Annual income and adoption:

It was revealed from the results of present study that the correlation co-efficient (0.282) described the relationship between annual income and adoption level about recommended grape cultivation practices of the grape growers as positive and highly significant. From this result it can be said that the annual income determines the economic status of the grape growers. They could afford to spend money on the cultivation practices of grape. This clearly indicates that higher will be the annual income, higher the adoption level of grape cultivation practices. The findings of the study are in line with the findings of Nemade (2007)

Area under grape and adoption:

It was elucidated in the study that the correlation co-efficient (0.174) indicates the relationship between area under grape and adoption level of grape growers was positive and highly significant. It might be due to the fact that those, who have large size of land holding had more area under grape cultivation moreover, they are benefited more by adoption of the grape cultivation practices. That is why the grape growers having more area under grape might have higher level of adoption. Findings are similar by Bhosale (2004).

Social participation and adoption:

It was portrayed in the study that the correlation coefficient (0.832) indicated the relationship between social participation and adoption level of grape growers as positive and highly significant.The study portrayed that the adoption level of grape cultivation practices increased with increase in social participation. They might have been communicated about the advantages of cultivation practices of grape hence, adoption was to a greater extent. It may resulted in positive and highly significant relationship between these two variables. Findings are supported by the study of Jadhav (2008).

Use of sources of information and adoption:

It was elucidated that the correlation co-efficient (0.447) indicated the relationship between use of sources of information was found to be positively and significantly related with adoption of grape cultivation practices of grape growers.Use of sources of information increases level of information and develop self confidence about ability to take up new and better methods. With frequent extension contacts, farmers get reinforcement to adopt new ideas, which is essential for continuing the adoption. It might be the reason that use of sources of information could express the positively significant

relationship with adoption of grape cultivation practices. Similar results were reported by Bhosale (2004).

Risk orientation and adoption:

As regards with the relationship of risk orientation, the study revealed that there was positive and highly significant relationship with the adoption of grape cultivation practices. The reason could be that the farmers with more risk orientation prone to take risk and face the challenges to get maximum returns due to which there may be such type of relationship. The similar finding was also reported by Ghodeswar (2006) and Nemade (2007).

Market orientation and adoption:

It was elucidated from the results of present study that the correlation co-efficient (0.677) indicated the relationship between market orientation and adoption level of grape growers was positive and highly significant.The grape growers who were oriented to market intend to earn more. Therefore, with motivation they tend to adopt the recent technology. It indicates that adoption depends on market orientation. As market orientation increased adoption also increased and so on. There was positive and highly significant relation between these two variables. This finding is similar with the finding of Ghodeswar (2006) and Nemade (2007).

Extension contact and adoption:

The correlation co-efficient (0.404) indicated that the relationship between the extension contact and adoption of the grape growers was positive and highly significant. As the grape is a highly commercial horticulture crop. It was essential to growers to have contact with professional extension contact. These finding are also supported by Hinge (2009).

Conclusion :

General picture with respect to adoption of recommended grape cultivation practices by the grape growers highlighted that the level of adoption of grape cultivation practices was to the extent of medium. These findings suggested that the State Agricultural Universities, State Department of Agriculture and Draksha Sanshodhan Kendra, Pune should provide knowledge about improved grape cultivation practices by organizing training programs possibly at their own villages to the grape growers which will help to update and increase their adoption which will result in higher grape production.

It is also concluded that majority of the grape growers had medium category of market orientation and medium in use of source of information about grape cultivation. The State Department of Agriculture will help the grape growers to tide over the market glut conditions and also be helpful to the consumers to obtain these products during off-season.

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