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Research Article

Knowledge of recommended grape cultivation practices by the grape growers

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SUMMARY : In general, the knowledge of grape cultivation produces was medium among the growers and it could be enhanced by imparting training to the growers at their own villages through Govt., NGO's and SAU's Government and 'National Horticultural Mission' could also pay a vital role in developing the processing units to utilize the raw material so that their income and interest could be developed to cultivate recommended grape varities. Govt. machinery and extension workers may extend their expertise through 'Kisan Mela', 'Kisan Call Centres' and 'Choupal' like programmes for doing grape cultivation of improved varities.

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BACKGROUND AND OBJECTIVES

Grape (*Vitis vinifera* L.) is a temperate fruit crop and also cultivated under tropical and subtropical regions in the world. It is 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 country in the world. In India it is cultivated under temperate, subtropical and tropical climates over an area of 80,000 ha with annual production of 18.78 lakh million tones and productivity is 23.50 MT/ha. 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. Wine grape production is 11,230 MT.

Maharashtra, Karnataka, Punjab, Andhra Pradesh, Tamil Nadu and Haryana are the major grape growing states in India. Maharashtra is the leading grape producing state, where the total area under grape cultivation is 55,700 ha with annual production of 14.75 lakh million tons.

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. Area under grape cultivation in Maharashtra is about 1600 ha. out of that area under grape cultivation in Latur district is about 761.30 ha. Every year production of raisins in Maharashtra was about 50,000 tones and about 28,000 tonnes of fresh grapes were exported to different countries. Raisins are golden, green or black coloured delicacies which are favuorites 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.

Objectives:

- To study the knowledge of grape growers about recommended grape cultivation practices.
- To find out the relationship of personal characteristics of grape growers with their knowledge.

RESOURCES AND 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 results of the present study as well as relevant discussion have been summarized under following heads:

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

It was portrayed from the data (Table 1) that majority 63.33 per cent of the grape growers had medium level of knowledge while, 23.33 per cent of them had low and only, 13.34 per cent of the grape growers had high level of knowledge.It is indicated that the knowledge level of majority of the grape growers was medium. The medium knowledge level of majority of grape growers might be due to the fact that the farmer might have exposed to the different information sources. Moreover, most of the practices were might be generally known to the majority of the grape growers due to cultivation of grape crop for long time.

Table 1 : Distribution of the grape growers according to their knowledge about recommended grape cultivation practices (n=120)

Sr. No.	Knowledge level	Frequency	Percentage
1.	Low (up to 72)	28	23.33
2.	Medium (73 to 92)	76	63.33
3.	High (93 and above)	16	13.34

Correlation analysis:

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

Farming experience and knowledge:

The correlation coefficient (0.804) indicated that there was positive and highly significant relationship between the grape growers farming experience and level of knowledge about recommended grape cultivation practices.It indicates that increase in farming experience, increasesd the level of knowledge of grape growers about recommended grape cultivation practices. Similar findings were reported by Hinge (1997) and Sawale (2011)

Table 2 : Correlation coefficient ('r') analysis

Sr. No.	Independent variables	Correlation co-efficient ('r') knowledge
1.	Farming experience	0.804**
2.	Education	0.255*
3.	Land holding	0.430**
4.	Annual income	0.345**
5.	Area under grape	0.205*
6.	Social participation	0.868**
7.	Use of sources of information	0.425**
8.	Risk orientation	0.225*
9.	Market orientation	0.676**
10.	Extension contact	0.352**

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

Education and knowledge:

The correlation coefficient (0.255) showed that there was a positive and highly significant relationship between the education and their level of knowledge of recommended grape cultivation practices. Education has a profound impact on every aspect of life of an individual. It widens the knowledge base of an individual, this leads to widen the vision of an individual. Educated people have greater inclination of new ideas and thus, they are more prone to change, to take risk and have better understanding of subject matter. It was therefore, assumed that, highly educated grape growers might have more knowledge about recommended grape cultivation practices. The findings are in line with findings of Birajdar (1990) and Raut (2006).

Land holding and knowledge:

The data delineated that land holding was positively and highly significantly (0.430) related with the level of knowledge**.** Generally families having larger size of holding had more income and high socio-economic status. They could try the innovation at their situation and as such they accept change by modifying their behavior. It was, therefore, assumed that grape growers with large size of land holding might have more knowledge about grape cultivation practices . This finding is supported by the findings of Kote (1992) and Sawale (2011).

Annual income and knowledge:

The correlation co-efficient (0.345) revealed that the relationship between annual income and knowledge level of the grape growers was positive and highly significant. From this study, it could be elucidated that grape growers from

higher income group had relatively more knowledge. The resourceful person may have more wider contacts and moreover, they were favourably placed with respect to formal education. Similar findings were noted by Bhosale (2004) and Nemade (2007).

Area under grape and knowledge:

The correlation co-efficient (0.205) revealed that the relationship between area under grape and knowledge level of grape growers was positive and highly significant. A large sized area under grape crop inspires grape growers in acquiring more advanced technologies on the farm. Thus, they always try to seek more knowledge about these farm technologies to have the maximum income. Similar results were also found in the study of Bhosale (2004).

Social participation and knowledge:

The correlation co-efficient (0.868) indicated that the relationship between the social participation and knowledge of the grape growers was positive and highly significant. This finding may be due to the fact that grape growers who participate more in voluntary organization, develop broader outlook and thereby come across with new idea and knowledge. Hence, area under grape could establish positive and highly significant relationship with the knowledge about recommended grape cultivation practices. similar findings were indicated in the study of Bhosale (2004) and Nemade (2007).

Use of sources of information and knowledge:

The correlation co-efficient (0.425) indicated that the relationship between the use of sources of information and knowledge level of grape growers was positive and highly significant. An individual gains variety and more amount of knowledge if he has an opportunity to expose with more number of sources of information. Grape growers who used more sources of information, they have higher exposure and enriches the level of knowledge. Similar results were also noted in the study of Hinge(1997) and Nemade (2007).

Risk orientation and knowledge:

It was vividly presented in the results of present study that the correlation co-efficient (0.225) indicated the relationship between the risk orientation and level of knowledge of the grape growers was positive and significant.This indicates that the higher the risk orientation also higher the level of knowledge of grape growers. This finding may be due to those grape growers who had high risk orientation are psychologically prepared to try new practices with a view to make progress in farming. Similar results were reported by Bhosale (2004).

Market orientation and knowledge:

It was vividly presented in the results of present study that the correlation co-efficient (0.676) indicated that the relationship between the market orientation and level of knowledge of the grape growers about grape cultivation was positive and highly significant. This reveals that higher the market orientation, higher the level of knowledge of the grape cultivation practices. Nemade (2007) had found the similar results.

Extension contact and knowledge:

The correlation co-efficient (0.352) indicated that the relationship between the extension contact and knowledge of the grape growers was positive and highly significant. This reveals that farmer having more extension contact get acquired with knowledge and information earlier than others, as such they are likely to go for change by modifying their way of thinking. Therefore, there was positive and highly significant relationship between extension contact and knowledge of the grape growers about grape cultivation. Nemade (2007) and Bhosale (2004) had found the similar results.

Conclusion :

General picture with respect to knowledge of recommended grape cultivation practices by the grape growers highlighted that the level of knowledge 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 their knowledge.

It is 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. The Government and "National Horticultural Mission" should provide subsidy and encouragement to the entrepreneurs for establishing such processing units in the grape growing areas. The extension workers of State Department of Agriculture should use advance communication medias for effective diffusion of innovations in the field of horticulture, this should necessarily include the organization of demonstrations, farm schools and visit to successful processing plants. State Department of Agriculture should implement effectively the e - extension activities by establishing the Kisan Call Centre and Choupal in every village.

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