



Constraints Face by them in Adoption of Guava Production Technology in Saharanpur District (Uttar Pradesh)

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ABSTRACT

Guava production was vital for the overall growth of Horticulture as it contributed to nearly 4 per cent of the total fruit production. Each part of the Guava tree possessed much of economic value. Being rich in folic acid, dietary fiber, potassium and in dietary minerals, Guavas had often been included among the various super fruits. Even though India had been the leading producer of Guava in the world, the productivity of Guava in India had been the lowest among the Guava producing countries. The present study was carried out during the year 2015-16 in Saharanpur district of west Uttar Pradesh. To know various socio-economic profile characters like, age, middle age category group of 46-60 years 45.00 percent, other backward cast 50.00 percent, literate 97.50, families size of medium category 5-8 members, 51.25 percent, the medium orchardists with a land holding 4-10 hectare 27.50 percent respectively. About 30.00 percent respondents were found earning annual income of above Rs. 75001/-. The maximum number of orchardists 85.00 percent was not participating in any institutional organization.

Key words: Guava orchardists and socio- economic Status.

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INTRODUCTION

Guava (*Psidium guajava* L.) is the most important and commercially cultivated fruit crop belonging to the family *Myrtaceae*. It is originated in tropical America, stretching from Mexico to Peru, and gradually became a crop of commercial significance in several countries like Brazil, Mexico, China, Malaysia, Hawaiian Islands, Cuba and India. The crop has gained considerable prominence in our country in general and the state of Karnataka in particular on account of its high nutritive value, pleasant aroma, good flavour and availability at moderate price. Besides, it is one of the hardiest among the fruits in productivity, adaptability with nutritional quality and hence aptly known as 'Poor man's apple' and 'Apple of tropics'. Guava is a very popular fruit. It is the available throughout the year except during the summer season. Being very hardly, it gives an assured crop even with very little care. Its cost of production is also low because its requirement for fertilizer, irrigation and plant protection are not much further its nutritive value very high. Therefore, it is an ideal fruit for the nutritional security. Guava is also known as black yard fruit to a great extent. Best quality guavas are produced in Uttar Pradesh, particular in Allahabad region [1-4].

Guava (*Psidium guajava* L.) "Apple of Tropics" is an important fruit crop of country, not because of large area and production but due to its wider climatic adaptability, hardy to various biotic and a biotic stresses, precocious and prolific bearing habit, quality fruit with high nutritive value, medicinal attributes, used both as fresh fruit and after processing in different value added products and considered as multipurpose tree due to its utility as fruit, fuel, fodder and timber plant and highly remunerative crop. Guava is called as apple of the tropics. The fruit are good source of ascorbic acid and pectin. Citric and

malic are the predominant acids. The physico-chemical characteristic of guava varies with varieties, stage of maturity, management practices, agro climatic situations, season of crop etc. The nutritional value of guava, ripe fruits contain approximately 79.50 per cent moisture, 15.25 per cent dry matter content, 3.20 per cent crude fiber and little amount of ash, crude protein and crude fat. The fruits are also a good source of vitamin A, Calcium, phosphorus and iron. Several volatile compounds including hydrocarbons, alcohols and carbonyls have been reported to be responsible for the characteristic flavour of guava. The decrease in astringency with the advancement of maturity is ascribed to polymerization of leucoanthocyanins.

MATERIALS AND METHODS

This study was conducted in Meerut district during the year 2015-16. Meerut district comprise of 11 blocks in which one blocks namely Sodhailikadeem were purposively selected. Four villages from Sodhailikadeem blocks were purposively selected and 80 Guava orchardists were selected from all villages. Thus the total sample size was of 80 respondents. The data were collected through personal interview with the help of pre structured schedule. The data were analyzed and find out the percentage and rank order.

RESULTS AND DISCUSSION

Table 1. Constraints face by them in adoption of guava production technology

S.No.	Constraints	Frequency	Percentage	Rank
1.	Unavailability of improved quality varieties material.	72	90.00	II
2.	Less number of trainers training centre about technical know-how awareness.	68	85.00	VI
3.	Lack of knowledge about application of chemical & fertilizers.	69	86.25	V
4.	Short self-life of ripen guava fruits.	51	63.75	X
5.	Old traditional way of packaging materials.	70	87.50	IV
6.	Lack of information about inters cropping.	73	91.25	I
7.	Lack of quality storage facilities.	59	73.75	VIII
8.	Testing laboratory are not available.	71	88.75	III
9.	Lack of confidence to adopt the new technological practices.	67	83.75	VII
10.	Involvement of middleman in marketing channels.	54	67.50	IX

The description as well as data of the table 1 revealed that the Lack of information about inter cropping. Got first rank with 91.25 percent responses in the study area. Most of the orchardists were reported that the all the work of orchard management was done in the traditional style only. Due to lack of knowledge and awareness regarding inter cropping, not any orchardists were following them. Most of the orchardists lease out their orchards for two fruiting year and then after the management of orchard was done by contractors only. Once the orchardists gave the orchard to the contractor, they did not have any further say in the decision making regarding orchard management.

The data of the table 4.4.1 showed that Unavailability of improved quality varieties material got second rank with 90.00 percent responses in the whole study area 88.75 percent respondents were Testing laboratory are not available and Old traditional way of packaging materials 87.50, got rank third and fourth respectively.

Another major problem lack of knowledge about application of chemical & fertilizers reported by more than 86.25 percent orchardists and got fifth rank order followed by Less number of trainers training centre about technical know-how awareness 85.00 percent and Lack of confidence to adopt the new technological practices 83.75 percent and got rank sixth and seventh respectively. Lack of quality storage facilities 73.75 percent of the orchardists and got eighth rank.

Involvement of middleman in marketing channels by 67.50 percent and short self-life of ripen guava fruits was also reported to constraint by 63.75 percent of the orchardists and got ninth and tenth rank order.

Suitable extension strategy for promotion of quality Guava production

On the basis of the finding of the present study the following suggestions may be made to increase knowledge and adoption level of Guava orchardists for production of quality Guava in the study area.

- Create knowledge and awareness about improved Guava production technology to the Guava orchardists through trainings, meetings, demonstrations and media exposure on different aspects of Guava production in the study area.
- Government zonal research stations, SAUs, KVKs, NGOs have organised timely training to the Guava orchardists on the all aspects of Guava production technology for up gradation of technical know how.
- Conducted trainings and demonstration programmes for the identification of harmful and beneficial insects-pests in the study area for Guava orchardists.
- Provide complete information packages about the Guava production technology to the farmers through mass media exposure, training, campaign, group discussion, farmer scientist's interaction, demonstrations, farmers' field school and SMS services from time to time for awareness of Guava orchardists and application of new Guava production technology in Guava orchard for promotion of quality Guava production.
- Govt. should provide sufficient facilities for technology transfer and field study of guava orchardist and e-choupal for quick transfer of improved Guava production technology for Guava orchardists.
- Government should provide more risk covering programmes or subsidy facilities to the Guava orchardists for reducing the losses of orchardists through communication and information technology system for promotion of quality Guava.
- Organize on farm training for farmers on different aspects of Guava production technology related to using for cultural, biological, mechanical and chemical methods for reducing insect- pests, diseases and weeds in the Guava orchards.
- Provide regular electricity in rural area for proper storage of Guava fruits and plant protection materials like bio-agents, bio-fertilizer etc.
- Increase numbers of information / training centres / Guava research unit for quality Guava production and quick transfer of Guava production information technology in the study area.

The extension workers should visit the farmer's field and need based information should be provided on the spot visit to the Guava orchardists. They should tell and demonstrate to farmers about the identification of various insects-pests and diseases of Guava orchard and immediate solution for removal of their problems in Guava orchard. Govt. and non Govt. organizations prepare the strategies for providing the information should be "On the spot through expert's team on the basis of plant clinic survey based programme". Extension worker can support this strategy with other aids like photographs of pests, symptoms of the diseases, life cycle of pests harmful stage of insects pests and diseases [5-6]. For the desire impacts develop linkages between the extension personnel, horticulture department, K.V.Ks experts and subject matter specialist of state agriculture university for awareness of technical know-how and immediate solutions of the Guava orchardist's problems.

CONCLUSION

It is concluded from above study that most of the guava orchardists were found in various 91.25 percent responses in the study area. Most of the orchardists were reported that the all the work of orchard management was done in the traditional style only. Involvement of middleman in marketing channels by 67.50 percent and short self-life of ripen guava fruits was also reported to constraint by 63.75 percent of the orchardists and got ninth. Farmer gives many Suitable extension strategy for promotion of quality Guava production but main suggestion Create knowledge and awareness about improved Guava production technology to the Guava orchardists through trainings, meetings, demonstrations and media exposure on different aspects of Guava production in the study area.

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