

Short Communication

Constraints and Challenges Faced by Farmers in Adoption of Guava Production Technology in Rewa District of Madhya Pradesh

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In general, the average productivity of India is 15.29 MT/¹, which is low as compared to other Guava producing countries of the world. Guava is grown in different agro-climatic conditions and its productivity is affected by various abiotic stresses which consequently affect the socio-economic condition of its growers. Guava production is influenced by a variety of factors such as standardization of agro-techniques and nutrient management. Among macronutrients, mainly nitrogen, phosphorus, potassium and sulphur play an important role in growth and development of the guava plant. Similarly, among micronutrients zinc and boron also help in the growth of the plant and fruits. Guava responds positively to potassium and sulphur in terms of yield and quality of fruits. Therefore, lack of knowledge about the proper quantity of nutrient, type of nutrient and the time of their use, farmers have to face problems in guava production.

Various aspects like genetic variability, varieties, wealth, nutritional value, agro-techniques including water management and post-harvest changes have been documented by various workers. On the other hand, limited and inadequate information is available about area-specific varieties, suitability and performance of guava at farmer's field in Rewa district of Madhya Pradesh.

Keeping this in view, the present investigation was carried out to study the constraints faced by guava growers during production and marketing of guava and suggestions offered in adoption of guava production technology^[1,2].

The present investigation was carried out during 2024 in Rewa district of Madhya Pradesh. This district consists of nine blocks out of which primarily Rewa, Raipur Karchuliyan and Mauganj blocks were selected for investigation. From each block four villages and from each village thirty farmers were selected, where the farmers were having the largest area under guava cultivation. The farmers from each village were arranged alphabetically and a random sample of 120 farmers was drawn by randomization. The investigation was related to Guava cultivators and the constraints faced by them during production and marketing.

A structured interview schedule was prepared for collection of data with a view to study various aspects. During investigation, the respondents gave several important reasons due to which they failed to use the recommended practices in their farming. The reasons or the causes were termed as constraints in the studies. The respondents were asked to indicate the constraints faced in

adoption of recommended practices with its intensity of feeling on “yes or no answer.” Obtained problems were expressed in terms of frequency and percentage. Rank order was given from the highest percentage to the lowest percentage. Knowledge and adoption level of the respondents were measured and data have been presented in Table 1. Based on the data, it was observed that more than half of the respondents were having medium knowledge level about guava production technology which was

61%, similarly 21% and 38% respondents were possessing low and high knowledge level, respectively. Further, it is clear from the table that 45.83% of the respondents were medium adopters. The above findings reveal that majority of the respondents were possessing medium knowledge level about guava production technology. This clearly indicates the need to put more efforts by all the concerned to convince the farmers about adoption of improved production technology of guava cultivation.

Table:1 Distribution of guava farmers according to their knowledge and adoption Level (n = 120)

Sr. No.	Categories	Knowledge	Adoption levels
1	High	38(31.66)	31(25.83)
2	Medium	61(50.83)	55(45.83)
3	Low	21(17.5)	34(28.33)
	Mean	33.33	33.33

Constraints and challenges faced by the respondents

The parts of constraints were kept open ended in the questionnaire. The responses were recorded in the schedule itself. The constraints under each of the practice required to be rated by each and every respondent, in one of the three categories viz., most important, important and less important. The frequency was calculated for each constraint and converted in to percentage and rank was given. The higher ranks indicated higher perception of the respondents for that constraint and vice versa. The constraints and the mean score are given in the following Table 2. The highest percentage observed in constraints was lack of knowledge about recommended guava

production technology (rank first), Timely training and pruning (rank second), Lack of knowledge about varieties suitable to their areas (rank third), Unavailability of quality planting material (rank fourth), Lack of knowledge about nutrient management and plant protection measures (rank fifth), Inadequate guidance by extension personnel (rank sixth), Lack of training at village level (rank seventh), Lack of proper postharvest management facilities (rank eighth), High wages of Labour (rank ninth), Lack of marketing infrastructure facilities (rank tenth), Fluctuation of guava price in the market (rank eleventh) and High transportation cost (rank twelfth).

Table2: Constraints faced by the farmers in adoption of recommended guava Production technology (n = 120)

Sr. no.	Constraints	Frequency	Percentage(%)	Ranks
1	Timely training and pruning	108	90.00	II
2	Lack of knowledge about varieties suitable to their areas	97	80.83	III
3	Lack of marketing infrastructure facilities	60	50.00	X
4	Lack of knowledge about recommended guava production technology	112	93.33	I
5	Lack of knowledge about nutrient management and plant protection measures	90	75.00	V
6	Unavailability of quality planting material	93	77.5	IV
7	Lack of proper postharvest management facilities	65	54.16	VIII
8	High wages of Labour	61	50.83	IX
9	Inadequate guidance by extension personnel	76	63.33	VI
10	Lack of training at village level	71	59.16	VII
11	Fluctuation of guava price in the market	56	46.66	XI
12	High transportation cost	51	42.50	XII

The suggestions were invited openly from respondents and the frequency was calculated for each suggestion and converted into percentage and rank was given (Table 3). The most important suggestions offered by the guava growers to overcome the constraints in adoption of quality planting material should be made available easily 79.16 per cent, timely training pruning is must 67.50 per cent, remunerative price should be given to guava growers 58.33 per cent, Training should be imparted to the guava growers 54.16 per cent, Market facilities should be strengthened 50.0 per cent, Availability of post harvest infrastructure 46.66 per cent and Sufficient and timely credit facility should be made available 42.50 per cent. It is clear from the Table 3

about the suggestions made by the majority of the farmers that these suggestions are based on the facilities have been availed but are not sufficient and satisfied up to the extent of their expectations. Thus, it can be concluded from the facts mentioned above that the facilities to the guava growers' are already being provided by the human resources or by natural resources needs to be strengthened and tailored according to the requirements of guava growers^[3]. The other suggestions offered by the farmers need to be looked into account very carefully by the appropriate agencies to improve the productivity of guava crop. From the above discussion, it can be concluded that majority of farmer's constraints about guava production

technology were unavailability of quality planting material, Weight and quality loss during storage and transportation, lack of proper post harvest management facilities, lack of knowledge about varieties suitable to their areas, lack of training at village level, lack of knowledge about

recommended guava production technology and inadequate guidance by extension personnel. Farmers offered suggestions of guava production technology were quality planting material should be increased.

Table 3 Suggestions from the respondents to overcome the constraints in adoption of recommended guava production technology (n = 120)

Sr. no.	Constraints	Frequency	Percentage (%)	Ranks
1	Quality planting material should be made available easily	95	79.16	I
2	Training should be imparted to the guava growers	65	54.16	IV
3	Market facilities should be strengthened	60	50.00	V
4	Timely training pruning is must	81	67.50	II
5	Remunerative price should be given to guava growers	70	58.33	III
6	Availability of post harvest infrastructure	56	46.66	VI
7	Sufficient and timely credit facility should be Made available	51	42.50	VII

References

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