

## KNOWLEDGE ABOUT DIFFERENT ASPECTS OF RECOMMENDED GUAVA PRODUCTION TECHNOLOGIES IN BUNDI DISTRICT OF RAJASTHAN

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### ABSTRACT

This study was conducted in Bundi of Rajasthan district in 2011 which was selected purposively. The Bundi district consists of five tehsils. Out of which two tehsils namely, Bundi and Indergarh were selected by simple random sampling technique Bundi and Indergarh tehsils comprises of 29 and 22 gram panchayats, respectively. Among these, five gram panchayats from Bundi tehsil and five gram panchayats from Indergarh tehsil were selected by simple random sampling technique. Twenty villages were selected from the selected gram panchayats by using simple random sampling technique. It was found that 91.26 per cent farmers had knowledge regarding the “Improved varieties of guava” followed by “Recommended interval of irrigation” (86.50 per cent farmers), “Recommended hoeing and weeding” (85.71 per cent farmers), “Common insect pests of guava” (84.92 per cent), “Common disease of guava” (84.12%). Only 33.33 per cent farmers had knowledge about “methods of manure and fertilizers application”. Majority of guava growers had medium knowledge level about the cultivation practices of guava production.

### INTRODUCTION

Fruits have great importance in human diet. It is stated that the standard of living of the people of a country can be judged by its production and per capita consumption in the world. Though India is second largest producer of fruits (46.60 million tonnes) in the world after China (60.00 million tonnes) (Anonymous, 2008-09). Guava is the fifth most important sub tropical fruit crop of India after mango, banana, citrus and apple. The major guava growing districts in Rajasthan are Udaipur, Ajmer, Chittorgarh, Sawai Madhopur, Bundi and Kota. Guava is a quite hardly plant and gives assured production even with very little care. It is adaptable to various soil and climatic conditions.

Guava is successfully grown upto 1500 metre above mean sea level. It can i.e. grow with an annual rainfall of about 100 mm and temperature between 15 to 30°C. It requires dry atmosphere during flowering and fruiting stage. The high acceptability of guava fruit is due to its high nutritive value, pleasant aroma and availability of moderate price. This is also known

as apple of poor man. It is normally consumed as a fresh dessert fruit. Excellent salad, pudding, jam, jelly, nectar, concentrate and syrup can be made from guava fruits. Guava is the fourth most important fruit crop of Rajasthan after mango, orange and lemon.

### RESEARCH METHODOLOGY

The present study was conducted in Bundi District of Rajasthan in 2011, which was selected purposively. The Bundi district consists of five tehsils. Out of which two tehsils namely, Bundi and Indergarh were selected by simple random sampling technique Bundi and Indergarh tehsils comprises of 29 and 22 gram panchayats, respectively. Among these, five gram panchayats from Bundi tehsil and five gram panchayats from Indergarh tehsil were selected by simple random sampling technique. Twenty villages were selected from the selected gram panchayats by using simple random sampling technique. A sample of 126 guava growers was selected from these selected villages by using simple random sampling with proportion to the size of sample.

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## RESULTS AND DISCUSSION

### Knowledge level of the guava growers

The adoption level of farmers towards recommended guava production technology is directly or indirectly related to knowledge level of farmers about different recommended guava production technology. Hence, it was considered necessary to assess the knowledge level of the farmers about guava production. The knowledge about the guava produc-

tion technology had influence on the decision making about its adoption. With this view in mind the knowledge test was applied to the guava growers to know their knowledge about recommended guava production technology.

The statistical data regarding the knowledge level of respondents about guava production technology have been presented in table 1.

**Table 1: Distribution of guava growers under different knowledge categories of recommended guava production technology. n=126**

S.No.	Knowledge level categories	Number of farmers	Per cent of farmers
1.	Low knowledge (Scores below 47.69)	27	21.43
2.	Medium knowledge (Scores from 47.69 to 70.23)	74	58.73
3.	High knowledge (Scores above 70.23)	25	19.84
	Total	126	100

$\bar{X} = 58.96$  scores  $s = 11.27$  scores

Further, knowledge about different aspects of guava production was also analyzed separately. The relative importance of all the 31 aspects of guava production was highlighted by ranking them on the basis of the per cent of farmers having knowledge about the guava production. From the data in table 2 it is evident that 91.26 per cent farmers had knowledge about "Improved varieties of guava" and was ranked first. About 86.50 per cent farmers had knowledge about the recommended guava production technology like "Recommended interval of irrigation" and was ranked second followed by "Recommended hoeing and weeding" (85.71 per cent) which was ranked third.

About 84.92 per cent farmers had knowledge about the "Common insect pests of guava" and was ranked fourth, followed by "Common disease of guava" (84.12 per cent) which was ranked fifth. About 83.33 per cent had knowledge about "Recommended time of manure and fertilizer application" which was ranked sixth, followed by "Recommended control measures of these disease" (82.53 per cent), and it was ranked seventh.

The practices of guava plantation like "Recommended time of pruning" (81.74 per cent) and "Advantages of pruning", (81.74) which were jointly ranked eighth, followed by "Correct time of planting

guava plant in orchards" (80.15 per cent), "Distance between guava plants" (79.36 per cent), "Recommended size of pit" (78.57 per cent), "Characteristics of the varieties" (77.77 per cent) which were ranked ninth, tenth, eleventh and twelfth, respectively.

The practices of guava production like "Advantages of hoeing and weeding" and "Time of propagation in guava" (76.98 per cent) were jointly ranked thirteenth followed by "Quantity of manure and pesticide applied in pits while planting" and "Protect against bird hazards" (74.60 per cent) were jointly ranked fourteenth, about 73.01 per cent had knowledge about "Average harvest from a guava tree of 10-15 years age in the season" and ranked fifteenth, followed by "Good prices of guava" (66.66 per cent), "Recommended fertilizers for guava plants" (63.49 per cent), "Fruits are graded" (61.90 per cent), "Guava saplings" (57.92 per cent) and "Suitable methods of irrigation in guava orchards" (54.76 per cent), which were ranked sixteenth, seventeenth, eighteenth, nineteenth and twentieth, respectively.

The practices of guava production like "System of guava planting" (53.96 per cent), "Method of propagation" (52.38 per cent), "Guava fruits should be packed" (51.58 per cent), "Methods of harvesting guava fruits" (50.79 per cent), "Intercrop in guava orchards during initial stages" (46.03 per cent),

**Table 2. Guava growers' knowledge about different aspects of recommended guava production technology n = 126 (Multiple response)**

S.No.	Knowledge aspects of guava production	No. of farmers	Percentage of farmers	Rank
1.	Improved varieties of guava	115	91.26	I
2.	Characteristics of the varieties	98	77.77	XII
3.	Methods of propagation	66	52.38	XXII
4.	Time of propagation in guava	97	76.98	XIII
5.	Guava saplings	73	57.92	XIX
6.	Recommended size of pit	99	78.57	XI
7.	Distance between guava plants	100	79.36	X
8.	System of guava planting	68	53.96	XXI
9.	Correct time of planting guava plant in orchards	101	80.15	IX
10.	Quantity of manure and pesticide applied in pits while planting	94	74.60	XIV
11.	Recommended interval of irrigation	109	86.50	II
12.	Suitable methods of irrigation in guava orchards	69	54.76	XX
13.	Recommended time of manure and fertilizer application	105	83.33	VI
14.	Methods of manure and fertilizers application	42	33.33	XXVIII
15.	Recommended fertilizers for guava plants	80	63.49	XVII
16.	Recommended hoeing and weeding	108	85.71	III
17.	Advantages of hoeing and weeding	97	76.98	XIII
18.	Intercrop in guava orchards during initial stages	58	46.03	XXV
19.	Recommended time of pruning	103	81.74	VIII
20.	Advantages of pruning	103	81.74	VIII
21.	Method of training of guava plants	57	45.23	XXVI
22.	Common insect pests of guava	107	84.92	IV
23.	Recommended control measures of insect pests	48	38.09	XXVII
24.	Common diseases of guava	106	84.12	V
25.	Recommended control measures of diseases	104	82.53	VII
26.	Protect against bird hazards	94	74.60	XIV
27.	Methods of harvesting guava fruits	64	50.79	XXIV
28.	Fruits are graded	78	61.90	XVIII
29.	Good prices of guava	84	66.66	XVI
30.	Guava fruits should be packed	65	51.58	XXIII
31.	Average harvest from a guava tree of 10-15 years age in the season	92	73.01	XV

“Method of training of guava plants” (45.23 per cent) which were ranked twenty one, twenty two, twenty three, twenty four, twenty five, twenty six, respectively. About 38.09 per cent farmers had knowledge about the “Recommended control measure of insect pests” and ranked at second last place. Only 33.33 per cent farmers were having knowledge about the “Method of manure and fertilizer application” and this was ranked last because of being of minimum numbers of farmers.

From the findings it is also evident that majority of the farmers were having high knowledge about the “Improved varieties of guava”, “Recommended interval of irrigation”, “Recommended hoeing and weeding”, “Common insect pests of guava”, “Common diseases of guava” and “Recommended time of manure and fertilizer application”. This might be due to the reason that majority of farmers were regularly growing guava for market purpose and these practices are most critical from the point of view of the guava production. Slight carelessness in these practices may reduce the production of guava drastically, so that the farmers remain most careful about these practices. Also for producing good quality guava, they mostly remain in contact with the extension agencies, sales agents etc. resulting the gain in knowledge about these recommended guava production technologies. Most of the farmers under study were literate hence they might know about these practices by reading the related literature. They also remain in contact with the neighbours, friends, progressive farmers and with subject matter specialists etc. Farmers due to their experience usually able to indicate the flowering and fruiting time by seeing size and colour of the guava fruits.

The farmers had low knowledge about the practices like “Recommended control measures of these insect and pests” and “Methods of manure and fertilizers application”. This might be due to the reason that the farmers might have not understand the instructions written on the container of chemicals because of its complex language they might also not get proper technical guidance about these aspects. It might also due to less contact of farmers with plant protection specialists.

## CONCLUSION

It was found that 91.26 per cent farmers had knowledge regarding the “Improved varieties of guava” followed by “Recommended interval of irrigation” (86.50 per cent farmers), “Recommended hoeing and weeding” (85.71 per cent farmers), “Common insect pests of guava” (84.92 per cent), “Common disease of guava” (84.12%). Only 33.33 per cent farmers had knowledge about “methods of manure and fertilizers application”. Majority of guava growers had medium knowledge level about the cultivation practices of guava production. Among the various aspects of different cultivation practices, majority of the farmers had knowledge about “Improved varieties of guava”, “Recommended interval of irrigation”, “Recommended hoeing and weeding”, “Common insect pests of guava”, “Common diseases of guava”, “Recommended time of manure and fertilizers”, “Recommended control measures of the diseases”, only a few farmers had knowledge regarding “Methods of manure and fertilizer application” “Recommended control measures of the insect and pests of guava”, and “Method of training of guava plants”.

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