

## **ATTITUDE OF THE FARMERS TOWARDS TISSUE CULTURE RAISED BANANA TECHNOLOGY**

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### **ABSTRACT**

*The study was conducted on a random sample of 100 farmers from Anand and Borsad Taluka of Anand district of Gujarat state to know their attitude towards tissue culture raised banana technology. The data were collected by personal contact. It came to know that 87.00 per cent of the farmers were more than age of 30 years of old, 100 per cent banana growers were educated, 93.00 per cent banana growers had membership in organization, 68.00 per cent farmers had medium to high level of extension contact, 100 per cent farmers had exposure of different mass medias, 47.00 per cent farmers were from the marginal category, 53.00 per cent farmers had banana cultivation land more than 0.50ha land area, 93.00 per cent had medium to high level of annual income, 100 per cent farmers had knowledge of tissue culture raised banana cultivation technology, 73.00 per cent farmers had favourable to highly favourable attitude towards tissue culture raised banana cultivation technology.*

**Keywords :** *tissue culture, attitude, banana technology*

### **INTRODUCTION**

Banana is an important fruit crop of the world which is cultivated over an area of more than four million hectares and its annual production is more than seventy million tons. Bananas are now grown pan tropically in one hundred and thirty countries which is more than any other fruit. Most of the bananas are used as fresh fruits. Bananas are also used in many other forms including banana puree, ice cream, baked desserts and can also be made into beer and wine. The recent advances in banana production technology like tissue culture has demonstrated that scientific management has great potential for increasing the banana production. Therefore, raising management efficiency is of paramount importance for banana producer. This will open up new vistas and make possible for banana growers to achieve substantial gains in income. Farmers of middle Gujarat grows banana crop in large areas and tissue culture raised banana cultivation technology is being used by many farmers ,so attitude of farmers towards tissue culture raised banana technology need to be studied. Therefore present investigation on to study the attitude of the farmers towards tissue culture raised banana technology was carried out.

### **OBJECTIVES**

(1) To study the profile of farmers

(2) To study the attitude of the farmers towards tissue culture raised banana technology

### **METHODOLOGY**

The study was conducted on a random sample of 100 farmers from Anand and Borsad Taluka of Anand district and the data were collected by personal contacts. The collected data were classified, tabulated and analyzed in order to make the finding meaningful. The statistical measures, such as percentage, frequency and standard deviation were used to analysis data.

### **RESULTS AND DISCUSSION**

#### **Profile of Farmer**

##### **(1) Age**

Age of the respondents play an important role in the process of knowledge. Data with respect to age are presented in Table 1.

The data in the Table 1 revealed that more than half (66.00 per cent) of the respondents were from middle age group (31 to 50 years), followed by 21.00 per cent with old age (above 50 years) and 13.00 per cent respondents seen in

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the young age group (up to 30 years).

**Table 1: Distribution of the respondents according to their age**  
n=100

Sr. No.	Category	Frequency	Per cent
1	Young age group (up to 30 years)	13	13.00
2	Middle age group (above 30 to 50 years)	66	66.00
3	Old age group (above 50 years)	21	21.00

It can be inferred that highest numbers of respondents were in the age group of 31 to 50 years.

### (2) Education

Education is a process of producing desirable changes in human behavior in terms of knowledge, skill and attitude. Generally, it is considered that formal education of the farmers play an important role in the process of knowledge. Considering these aspects the formal education of farmers was studied. The data in this respect are presented in Table 2.

**Table 2: Distribution of the respondents according to their Education**  
n=100

Sr. No.	Category	Frequency	Per cent
1	Illiterate	00	00
2	Primary education	30	30.00
3	Secondary education	20	20.00
4	Higher secondary	28	28.00
5	Graduate and above	22	22.00

It is obvious from the data presented in Table 2 that more than one fourth of the respondents (30.00 per cent) had primary education, followed by 28.00 per cent, 22.00 per cent, 20.00 per cent and 00 per cent had higher secondary education, Graduate and above, secondary education and illiterate, respectively.

It can be concluded from the above data that all (100.00 per cent) the respondents were found literate.

### (3) Social participation

Social participation denotes the extent to which an individual is actively involved in the affairs of the community. Those who have wider social participation are probably more community-oriented, knowledgeable and resourceful, which may help in knowledge, diffusion of innovations and may adopt innovations earlier. Keeping this in view,

social participation of the farmers was studied and data are presented in Table 3.

**Table 3: Distribution of the respondents according to their Social participation**  
n=100

Sr. No.	Category	No	Per cent
1	Not member of organization	07	07.00
2	One organization	70	70.00
3	More than one organization	14	14.00
4	Membership with holding position	09	09.00

It can be seen from the Table that majority (70.00 per cent) of the respondents had membership in one organization. Whereas, 14.00 per cent of the respondents had membership in more than one organization and 07.00 per cent respondents had no membership in any organization. Only 09.00 per cent respondents had membership with holding position.

From the above discussion it can be concluded that majority (70.00 per cent) of the respondents were having membership in one organization.

### (4) Extension contact

It is the extent of contact of the farmers with extension agents to seek information knowledge of on improved and modern scientific aspects of package of practices of any crops. To understand influence of this variable on the knowledge of the farmer, information was collected. The farmers were classified in three groups on the basis of their contacts with extension agencies as shown in Table 4.

**Table 4: Distribution of the respondents according to their extension contact**  
n=100

Sr. No.	Category	Frequency	Per cent
1	Low (up to 13.33)	32	32.00
2	Medium (13.34 to 18.66)	42	42.00
3	High (above 18.66)	26	26.00

The data presented in the Table 4 stated that less than half (42.00 per cent) of the respondents were having medium level of extension contact, followed by low (32.00 per cent) and high level of (26.00 per cent) extension contact, respectively.

Above discussion leads to conclude that majority (68.00 per cent) of respondents had medium to high level of extension contact.

**(5) Mass media exposure**

The communication exposure helps people to gain general knowledge as well as provides scientific and technical information. It plays an important role to develop their performance in the economic activity in which they get involved which ultimately improves their socio-techno-economic standards. The information regarding mass media exposure was collected as the nature and frequency of respondent's involvement in different mass media. The farmers were classified into three categories as shown in Table 5.

**Table 5: Distribution the respondents according to their mass media exposure n=100**

Sr. No.	Category	Frequency	Per cent
1	Low (up to 8)	00	00
2	Medium (8.1 to 16.00)	41	41.00
3	High (above 16.01)	59	59.00

It is apparent from the data presented in the Table 5 that majority (59.00 per cent) of the respondents had high level of mass media exposure whereas 41.00 per cent of respondents had medium level of mass media exposure, while 00.00 per cent of respondents had low level of mass media exposure.

From the above findings, it can be concluded that all the respondents (100.00 per cent) had medium to high level of mass media exposure.

**(6) Size of land holding**

Size of land holding is one of the most important indicators to measure one's socio-economic status. Keeping this in view land holding of the farmers was studied and data presented in Table 6.

**Table 6: Distribution of the respondents according to their size of land holding n=100**

Sr. No.	Category	Frequency	Per cent
1	Marginal farmers (Up to 1.00 ha)	47	47.00
2	Small farmers (1.01 to 2.00 ha)	26	26.00
3	Medium farmers (2.01 to 4.00 ha)	14	14.00
4	Large farmers (above 4.00 ha)	13	13.00

The data presented in Table 6 make it clear that nearly half (47.00 per cent) of the respondents were marginal

farmers (Up to 1.00 ha.) whereas 26.00 per cent had small size of land holding (1.01 to 2.0 ha.) and 14.00 per cent were medium farmers (2.01 to 4.00 ha.) and 13.00 per cent of the respondents had large size of land holding (above 4.01 ha.).

Thus, it can be concluded that majority (73.00 per cent) of the respondents were having land up to 2 ha.

**(7) Total land under banana cultivation**

The data presented in Table 7 clearly show that less than half (47.00 per cent) of the respondents had banana cultivation more than 0.75 ha area whereas 33.00 per cent had banana cultivation under less than 0.25 ha area. Table 7 also indicate that about 14.00 per cent of the farmers having banana cultivation land between 0.26 to 0.50 ha and only 06.00 per cent of the farmers having banana cultivation under 0.51 to 0.75 ha area.

**Table 7: Distribution of the respondents according to their land under banana cultivation n=100**

Sr. No.	Category	Frequency	Per cent
1	Up to 0.25 ha	33	33.00
2	0.26 to 0.50 ha	14	14.00
3	0.51 to 0.75 ha	06	06.00
4	Above 0.75 ha	47	47.00

Thus, it can be concluded that more than half (53.00 per cent) of the respondents were having banana cultivation land under the area more than 0.50 ha.

**(8) Annual income**

Higher income leads to high investment in farming and thus reduce technological gap. Use of tissue culture banana plants can only be possible when finance is available on land. Keeping this in view, annual income of the farmers was studied and data are presented in Table 8.

It is clear from the Table 8 that, more than half (53.00 per cent) of respondents had annual income above ₹ 4 Lakh followed by ₹ 40.00 per cent of them had annual income ranging from ₹ 2.51 to ₹ 4 Lakh and ₹ 07.00 per cent of them had annual income up to ₹ 2.50 Lakh, respectively.

**Table 8: Distribution of the respondents according to their annual income n=100**

Sr. No.	Category	Frequency	Per cent
1	Low level (Up to 2.50 Lakh)	07	07.00
2	Medium Level (2.51 to 4.0 lakh)	40	40.00
3	High Level (Above 4.1 lakh)	53	53.00

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On the basis of above results, it can be concluded that great majority (93.00 per cent) of the respondents were having annual income above Rs. 2,50,000.

### Knowledge of farmers towards tissue culture raised banana culture

It refers to understood information of farmers towards tissue culture raised banana technology. Distribution of tissue culture raised banana growers according to their level of knowledge is given in table 9.

**Table 9 : Distribution of tissue culture raised banana growers according to their level of knowledge n=100**

Sr. No.	Category	Frequency	Per cent
1	Low level (up to 8.6)	00	00
2	Medium Level (8.6 to 17.2)	21	21.00
3	High Level (above 17.2)	79	79.00

The data pointed out that majority (79.00 per cent) of the farmers had high level of knowledge, followed by medium level of knowledge with 21.00 per cent. Also it was noticed that 00 per cent of the farmers had low level of knowledge about tissue culture raised banana cultivation technology.

It can be concluded that all (100.00 per cent) the farmers had knowledge about tissue culture raised banana cultivation technology.

### Attitude towards Tissue Culture raised Banana cultivation technology

Attitude is defined as the degree of encouraging or depressing feeling of farmers towards the tissue culture raised banana technology. Attitude is a way of thinking, acting or feeling of a person towards a situation or cause.

**Table 10 : Distribution of the respondents according to their level of attitude towards tissue culture raised banana cultivation technology n=100**

Sr. No.	Category	Frequency	Per cent
1	Unfavorable (up to 42)	27	27.00
2	Favorable (42.01 to 66)	61	61.00
3	Highly Favorable (66.01 to 90)	12	12.00

The data presented in Table 10 revealed that majority

(61.00 per cent) of the farmers had favourable attitude towards tissue culture raised banana cultivation technology, followed by 27.00 per cent & 12.00 per cent of them had unfavourable and highly favourable attitude towards tissue culture raised banana cultivation technology, respectively.

Hence, it can be concluded that majority (73.00 per cent) of the farmers had favorable to most favorable attitude towards tissue culture raised banana technology.

### CONCLUSION

From the above discussion it can be concluded that 87.00 per cent of the farmers were more than age of 30 years of old, 100 per cent banana growers were educated, 93.00 per cent banana growers had membership in organization, 68.00 per cent farmers had medium to high level of extension contact, 100 per cent farmers had exposure of different mass medias, 47.00 per cent farmers were from the marginal category, 53.00 per cent farmers had banana cultivation land more than 0.50 ha land area, 93.00 per cent had medium to high level of annual income, 100 per cent farmers had knowledge of tissue culture raised banana cultivation technology, 73.00 per cent farmers had favourable to highly favourable attitude towards tissue culture raised banana cultivation technology.

### REFERENCES

- FAO (2006). STAT.<http://faostat.fao.org>.
- Mugo S. W. *et al.* (2013). Factors Influencing Tissue Culture Banana Output and its Impact on Income in Nyamusi Division, Nyamira North District, Kenya. *International Journal of Sciences: Basic and Applied Research*, 2, 2.
- Patel, Bhavik, Patel, M.R. and Patel, Arun (2017) Economic motivation and its relationship with level of knowledge about drip irrigation system of drip irrigated banana growers. *Guj. J. Ext. Edu.* 28(2):285-287
- Patel H. B. *et al.* (2011). Constraints Faced by the Banana Growers in Adoption of Improved Banana Cultivation Practices. *Guj. J. Ext. Edu.*, 22, 92-95.
- Prajapati, M.M., Thakkar, K.A. and Patel, R.N. (2017) Development and standardize scale to measure attitude of the farmers towards recommended farm technologies. *Guj. J. Ext. Edu.* 28(2):211-213