

CONSTRAINTS FACED BY THE BANANA GROWERS IN ADOPTION OF INNOVATIVE BANANA TECHNOLOGY

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ABSTRACT

In recent years, there has been a growing recognition of the importance of banana and household food, nutritional and social security in many parts of the world. During the last two decades, production and productivity have considerably increased with appreciable area expansion due to the growing awareness of banana in nutrition, high economic returns, and its export potential. The present study was conducted in the Anand district of Gujarat state. The 120 banana growers were selected proportionally. The data were collected by interview methods and analyzed based on frequency and percentage. Concerning constraints, the respondents had assigned the first rank to lack of knowledge about standards of export, followed by lack of knowledge about INM and IPM, lack of knowledge about post-harvest technology and value addition, labor problem during harvesting, lack of support prices according to quality of produce. The major suggestions were: The government should provide facilities of packhouse and pre-cooling chambers, followed by the Government should declare middle Gujarat Zone as an export zone for the banana crop, training programs on export should be arranged, low labor-consuming technology should be developed, rate of produce should be regulated.

Keywords: banana growers, innovative technology, constraints, suggestions

INTRODUCTION

In recent years, there has been a growing recognition of the importance of banana as a household food, nutritional and social security in many parts of the world. It is grown in more than 130 countries across the world in an area of 5.14 million ha producing 105.32 million tonnes of banana (Anonymous, 2012). In India, there has been a significant increase in terms of area, production and productivity in the last two decades. India is the largest producer of banana in the world, producing 28.45 million tonnes from an area of 0.796 million hectares with a productivity of 35.70 M.T./ha (Anonymous, 2012). Although India accounts for only 11.90 percent in the area, it accounts for 37.20 percent of the world's production. In India, banana is grown in different agro-climatic conditions. Leading banana producing states are Tamil Nadu, Maharashtra, Karnataka, Gujarat, Andhra Pradesh, Bihar, Assam, and Madhya Pradesh; at together contribute over 82.70 percent to the country's total banana production (Anonymous, 2015). The area under banana in India is 841.19, 859.97 and 883.77 ha with a production of 29134.82, 30477.22 and 30807.50 M.T. in the year of 2015-16, 2016-17 and 2017-18 respectively. (Anonymous, 2018). Gujarat ranks fourth in banana production and it constitutes 14.20 percent of total banana production. In

Gujarat, the banana crop is mostly grown in Bharuch, Narmada, Anand, Kheda, Surat, and Baroda districts. At the present level, The area under banana in Gujarat is 64.69, 66.31, and 68.15 ha with a production of 4185.52, 4293.23, and 4472.32 M.T in the year of 2015-16, 2016-17 and 2017-18 respectively. (Anonymous, 2018). There is also considerable scope for the export of banana and its products, which further enhance the demand bananas, are continuously exhibiting a spectacular growth worldwide. Its year-round availability, affordability, varietal range, taste, nutritive and medicinal value makes it the favorite fruit among all classes of people with good export potential. During the last two decades, production and productivity has considerably increased with appreciable area expansion due to the growing awareness of banana in nutrition, high economic returns, and its export potential, so there is greater need of promotion of innovative banana cultivation technology among the banana growers and for that it is very much necessary to identify the constraints which faced by the farmers in adoption of these innovative technologies and also to elicit the suggestions from farmers to overcome the constraints. So, an attempt has been made here to know about the constraints faced by the farmers in the adoption of innovative banana technology with the following objectives.

OBJECTIVES

- (1) To identify the constraints faced by the banana growers in the adoption of innovative banana technology
- (2) To explore the suggestions from the banana growers to overcome the constraints faced in the adoption of innovative banana technology

METHODOLOGY

The present study was conducted in the Anand

RESULTS AND DISCUSSION

Constraints faced by the banana growers in the adoption of innovative banana technology

Table 1: Constraints faced by the banana growers in the adoption of innovative banana technology (n=120)

Sr. No.	Constraints	Frequency	Percent	Rank
1	Lack of knowledge about standards of export	85	70.83	I
2	Lack of knowledge about INM and IPM technology	80	66.66	II
3	Lack of knowledge about post-harvest technology and value addition	75	62.50	III
4	Labor problem during harvesting	72	60.00	IV
5	Lack of support prices according to the quality of produce	68	56.66	V
6	Exploitation by the middle man	65	54.16	VI
7	Crop damage by wild animals	64	53.33	VII
8	Fluctuation in market prices	60	50.00	VIII
9	Effect on crop growth due to heat in summer	58	48.33	IX
10	More incidence of diseases	52	43.33	X

The data given in Table 1 revealed that the respondents had assigned first rank to lack of knowledge about standards of export, followed by lack of knowledge about INM and IPM (Rank II), lack of knowledge about post-harvest technology and value addition (Rank III), labor problem during harvesting (Rank IV), lack of support prices according to quality of produce (Rank V), exploitation by the middle man (Rank VI), crop damage by wild animals (Rank VII), fluctuation in market prices (Rank VIII), effect on crop growth due to heat in summer (Rank IX), more incidence of diseases (Rank X). Thus, it can be concluded that lack of knowledge about standards of export, followed by lack of knowledge about INM and IPM, lack of knowledge about post-harvest technology and value addition, labor problem during harvesting, lack of support price according to quality of produce, exploitation by the middle man, crop damage by

district of Gujarat state. Anand district comprises of eight talukas, out of these; Anand, Ankalav, and Petlad were purposively selected for having a maximum area under banana cultivation. Four villages from each taluka were selected purposively. The 120 banana growers from each of the identified villages were selected proportionally. The data was collected by interview methods by using the Gujarati version interview schedule. The collected data were analyzed based on frequency and percentage to make the findings meaningful.

wild animals, fluctuations in market prices, effect on crop growth due to heat in summer, more incidence of diseases were the most important constraints as perceived by the banana growers in adoption of innovative banana technology. This finding is in line with the findings of Patel (2007), Hengde *et al.* (2007) and Borate (2015).

Suggestions from the farmers to overcome the constraints faced in the adoption of innovative banana technology

An attempt was made to ascertain suggestions from banana growers to overcome various constraints faced by them in the adoption of innovative banana technology. The respondents were requested to offer their valuable suggestions against difficulties faced by them in the adoption of innovative banana technology. The suggestions offered by the banana growers are presented in Table 2.

Table 2: Suggestions were given by the banana growers to overcome the constraints faced in the Adoption of innovative banana technology (n=120)

Sr. No.	Suggestions	Frequency	Percent	Rank
1	The government should provide facilities of packhouse and pre-cooling chambers	88	73.33	I
2	The government should declare middle Gujarat Zone as an export zone for banana crop	82	68.33	II
3	Training programs on export should be arranged	79	65.83	III
4	Low labor-consuming technology should be developed	72	60.00	IV
5	Rate of produce should be regulated	70	58.33	V
6	Middle man commission should be avoided	71	59.16	VI
7	Training programs on IPM and INM should be arranged	65	54.16	VII
8	The government should start banana stem fiber extraction plant	62	51.66	VIII
9	Awareness about IBNM needs to be created	43	35.83	IX
10	Awareness about post-harvest technology needs to be created	42	35.00	X

The data given in Table 2 revealed that the major suggestions made by the banana growers to overcome the constraints were: Government should provide facilities of packhouse and pre-cooling chambers (Rank I), followed by Government should declare middle Gujarat Zone as export zone for banana crop (Rank II), training programs on export should be arranged (Rank III), low labor-consuming technology should be developed (Rank IV), rate of produce should be regulated (Rank V), middle man commission should be avoided (Rank VI), training programs on IPM and INM technology should be arranged (Rank VII), need to start banana stem fiber extraction plant by government (Rank VIII), need to create awareness about IBNM (Rank IX) and need to create awareness about post-harvest technology (Rank X).

CONCLUSION

It can be concluded that constraints faced by the banana growers in adoption of innovative banana technology were lack of knowledge about standards of export, followed by lack of knowledge about INM and IPM, lack of knowledge about post-harvest technology and value addition, labor problem during harvesting, lack of support price according to quality of produce, exploitation by the middle man, crop damage by wild animals, fluctuations in market prices, effect on crop growth due to heat in summer, more incidence of diseases, respectively. While the major suggestions made by the banana growers to overcome the constraints were: Government should provide facilities of packhouse and pre-cooling chambers, followed by Government should declare middle Gujarat Zone as export zone for banana crop, training programs on export should be arranged, low labor-consuming technology should be developed, rate of produce should be regulated, middle man commission should be avoided, training programs on IPM and INM technology should be arranged, need to start banana stem fiber extraction plant by government, need to create awareness about IBNM and need to create awareness about post-harvest technology, respectively.

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