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Socio-Economic Conditions of the Banana Cultivators: A Case Study in Annamayya District of Andhra Pradesh

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Abstract

Banana is a very popular fruit due to its low price and high nutritive value. It is consumed in fresh or cooked form both as ripe and raw fruit. Banana is a rich source of carbohydrate and is rich in vitamins particularly vitamin B. It is also a good source of potassium, phosphorus, calcium and magnesium. The fruit is easy to digest, free from fat and cholesterol. Banana powder is used as the first baby food. It helps in reducing risk of heart diseases when used regularly and is recommended for patients suffering from high blood pressure, arthritis, ulcer, gastroenteritis and kidney disorders. Processed products, such as chips, banana puree, jam, jelly, juice, wine and halwa can be made from the fruit. The fruit is easy to digest, free from fat and cholesterol. Banana powder is used as the first baby food. It helps in reducing risk of heart diseases when used regularly and is recommended for patients suffering from high blood pressure, arthritis, ulcer, gastroenteritis and kidney disorders. Banana fibre is used to make items like bags, pots and wall hangers. Rope and good quality paper can be prepared from banana waste. Banana leaves are used as healthy and hygienic eating plates. Founded from that the out of 180 banana cultivators more than three fourth of the banana cultivators 150(83.33 per cent) selected the banana cultivation in main category whereas only 30(16.67 per cent) selected the cultivators on the secondary basis. The marginal and large banana cultivators are more than 53(88.33 per cent) and 47(78.33 per cent) in the selected the main category. A low 10(16.67 per cent) selected the cultivation on secondary basis in small size banana cultivators, compared to marginal and large banana cultivators. About 98 (54.44 per cent) of the respondents have below 8 years of experience in the banana cultivation. 39(21.69 per cent) of the respondents had experience of 9 to 18 years.

Introduction

Banana is the second most important fruit crop in India next to banana. Its year round availability, affordability, varietal range, taste, nutritive and medicinal value makes it the favourite fruit among all classes of people. It has also good export potential. Hi-tech cultivation of the crop is an economically viable enterprise leading to increase in productivity, improvement in produce quality and early crop maturity with the produce commanding premium price. The global production of banana is around 102028.17 thousand tons of which India Contributes 29.19%. Besides India, other major banana producing countries are China, Philippines, Ecuador, Brazil and Indonesia. The table given below shows the major banana producing countries in the world.

Area and Production

Banana and plantains are grown in about 120 countries. Total annual world production is estimated at 86 million tonnes of fruits. India leads the world in banana production with an annual output of about 14.2 million tonnes. Other leading producers are Brazil, Eucador, China, Phillipines, Indonesia, Costarica, Mexico, Thailand and Colombia. In India banana ranks first in production and third in area among fruit crops. It accounts for 13% of the total area and 33% of the production of fruits. Production is highest in Maharashtra (3924.1 thousand tones) followed by Tamil Nadu (3543.8 thousand tonnes). Within India, Maharashtra has the highest productivity of 65.70 metric tones /ha. against national average of 30.5 tonnes/ha. The other major banana producing states are Karnataka, Gujarat, Andhra Pradesh and Assam.

Economic Importance

Banana is a very popular fruit due to its low price and high nutritive value. It is consumed in fresh or cooked form both as ripe and raw fruit. Banana is a rich source of carbohydrate and is rich in vitamins particularly vitamin B. It is also a good source of potassium, phosphorus, calcium and magnesium. The fruit is easy to digest, free from fat and cholesterol. Banana powder is used as the first baby food. It helps in reducing risk of heart diseases when used regularly and is recommended for patients suffering from high blood pressure, arthritis, ulcer, gastroenteritis and kidney disorders. Processed products, such as chips, banana puree, jam, jelly, juice, wine and halwa can be made from the fruit. The tender stem, which bears the inflorescence is extracted by removing the leaf sheaths of the harvested pseudostem and used as vegetable. Plantains or cooking bananas are rich in starch and have a chemical composition similar to that of potato. Banana fibre is used to make items like bags, pots and wall hangers. Rope and good quality paper can be prepared from banana waste. Banana leaves are used as healthy and hygienic eating plates.

Varieties Cultivated

Commercially, bananas are classified as dessert types and culinary types. The culinary types have starchy fruits and are used in the mature unripe form as vegetables. Important cultivars include Dwarf Cavendish, Robusta, Monthan, Poovan, Nendran, Red banana, Nyali, Safed Velchi, Basrai, Ardhapuri, Rasthali, Karpurvalli, Karthali and Grand Naine etc. Grand Naine, an imported variety from Israel is gaining popularity and may soon become the most preferred variety due to its tolerance to abiotic stresses and good quality bunches.

Land Preparation

Prior to planting banana, green manuring crop like daincha, cowpea etc. may be grown. The land can be ploughed 2-4 times and leveled. Ratovator or harrow is used to break the clod and bring the soil to a fine tilt. During soil preparation basal dose of FYM (about 50 tonnes/ha. before last harrowing) is added and thoroughly mixed into the soil.

Planting Material

About 70% of the farmers are using suckers as planting material while the rest 30% of the farmers are using tissue culture seedlings. Sword suckers with well developed rhizome, conical or spherical in shape having actively growing conical bud and weighing approximately 450-700 gm are commonly used as propagating material. Suckers generally may be infected with some pathogens and nematodes. Similarly due to the variation in age and size of sucker, crop is not uniform, harvesting is prolonged and management becomes difficult. Therefore, in-vitro clonal propagation i.e. Tissue culture plants are recommended for planting. They are healthy, disease free, uniform in growth and early yielding.

Planting season

Planting of tissue culture banana can be done throughout the year as per the market demand except when the temperature is too low or too high. The planting time may be adjusted so as to avoid high temperature and drought at the time of emergence of bunches (i.e. approx. 7-8 months after planting). The planting time for long duration cultivars is different from short duration ones.

Spacing

Traditionally banana growers plant the crop at 1.5m x 1.5m with high density; however plant growth and yields are poor because of competition for sunlight. The region like north India, coastal belt and where humidity is very high and temperature falls down upto 5-7ºC, the planting distance should not be less than 2.1m x 1.5m. Banana planting is carried out on the basis of patta double line method. In this method, the

distance between the two lines is 0.90 to 1.20 m. while plant to plant distance is 1.2 to 2 m. Due to this spacing, intercultural operations can be carried out easily and cost of drip irrigation is decreased. Experiments carried out recently show that good quality banana and heavy bunch can be achieved by keeping the planting distance at 1.8 X 1.8 m. However, to get maximum yield plantation is done at 1.2 X 1.5 m.

Planting Method

Pit planting is commonly followed in garden system of cultivation. A pit size of 0.5 x 0.5 x 0.5 m. is normally required. Small pits are dug in case of ridges and furrows. The pits are to be refilled with topsoil mixed with 10 kg of FYM (well decomposed), 250 gm of neem cake and 20 gm of carbofuran. Prepared pits are left open for 15-20 days for solar radiation to kill all the insects, soil borne diseases and for aeration before refilling. In saline alkali soil where pH is above 8, pit mixture is to be modified incorporating organic matter and gypsum. The suckers are planted in the centre of the pit and soil around is compacted. Plants are planted in the pits keeping pseudostem 2cm below the ground level. Soil around the plant is gently pressed. Deep planting should be avoided. The field is irrigated immediately after planting.

Drip Irrigation

Application of irrigation through drip system helps to maintain the proportion of soil air and soil water which results in early and vigorous growth of bunches. Raw bunch gets matured earlier by 30-45 days and yield is increased by 15-30 % and 58-60 % of water is saved on irrigation, weed is less, cost on intercultural operations is saved and water soluble fertilizers can be applied. Drip irrigation may be given @ 15 l. /plant /day from planting to 4^{th} month , 20l. /plant/day from 5^{th} month till shooting stage and 25 l./plant/day from shooting till 15 days prior to harvest.

Two methods are followed in case of drip irrigation

- Single line system in the spacing between the plants is 1.5 X 1.5 m. One lateral line and one dripper per plant is used.
- Double line system in the distance between the lines is 1 m., between two plants is 1.5 m. and between two double lines is 1.8m. each. One lateral and one dripper for two plants are arranged. The distance between the two lines may also be 2.1 X 2.4 m.

Intercultural Operations

The following inter-cultural operations are recommended for optimum productivity of the crop.

- Spraying of Glyphosate before planting @ 2 lit/ha is carried out to keep the plantation weed free.

- Four to five weedings are to be done whenever necessary.
- Harrowing the field three to four times to keep the soil loose. Earthing up should be done at 3-4 months after planting raising the soil level around the base of the plant by 10-12". It is better to prepare a raised bed and keep the drip line on bed 2-3" away from the plant. It also helps to protect plants from wind damage and production losses to some extent.

Desuckering

Removal of unwanted suckers is a critical operation in banana for reducing internal competition with the main plant. Small suckers are removed on regular basis up to 7-8 months.

Propping

Due to heavy weight of bunch the plant goes out of balance and the bearing plant may lodge and production and quality are adversely affected. Therefore they should be propped with the help of two bamboos forming a triangle by placing them against the stems on leaning side. This also helps in uniform development of bunch.

Insect Pests

The insect pests mostly observed are root stock/rhizome weevil (Cosmopolites sordidus) , stem borer (Odioporus longicollis), thrips, banana beetle (Nodostoma subcostatum), banana aphid (Pentalonia nigronervosa) and nematodes. Selection of healthy planting material and suitable intercultural operations apart from application of 0.04% endosulfan, 0.1 % carbaryl or 0.05 % monocrotophos depending upon the type of pest infestation have been found to be effective in controlling the pests.

Diseases

The main diseases reported are panama wilt (Fusarium oxysporum), anthracnose (Gleosporium musarum), leaf spot (Sigatoka) [Mycosphaarella musicola & Cercospora musae] , shoot rot (Ceratostomella paradoxa) and viral diseases. Disease free planting material should be used and the infected plant parts destroyed. Spraying with 1 % Bordeaux, copper oxychloride or carbendazim in case of fungal infections has been found to give positive results.

Harvesting and Yield

Banana is harvested when the fruit is slightly or fully mature depending on the market preferences. For long distance transportation, harvesting is done at 75-80 % maturity. The fruit is climacteric and can reach consumption stage after ripening operation. The planted crop gets ready for harvest within 12-15 months of planting and the main harvesting season of banana is from September to April. Bunches attain maturity from

90-150 days after flowering depending upon variety, soil, weather condition and elevation. Bunch should be harvested when fingers of second hand from top are 3/4 rounded with the help of sharp sickle 30cm above the first hand. Harvest may be delayed upto 100-110 days after opening of the first hand. Harvested bunch should generally be collected in well padded tray or basket and brought to collection site. Bunches should be kept out of light after harvest, since this hastens ripening and softening. For local consumption, hands are often left on stalks and sold to retailers. The dwarf varieties are ready for harvesting within 11 to 14 months after planting while the tall varieties take about 14 to 16 months. After harvest of bunch, only leaves are to be cut and plant system is retained for ratoon crop development. This improves the food supply and about 15 % can be saved on irrigation. For getting good quality banana, only 7 to 8 berries are to be retained in a bunch. First ratoon crop would be ready by 8-10 month from the harvesting of the main crop and second ratoon by 8-9 months after the second crop. Thus over a period of 28-30 months, it is possible to harvest three crops i.e. one main crop and two ratoon crop.

Annamayya District

Banana is the most popular fruit in Annamayya district. It is considered to be the king of tropical fruits. It is equally liked by both the rich and the poor. Banana grows under varying soil and climatic conditions. Soil, moisture conditions, temperature and humidity largely determine the adaptability and productivity of banana.

Methodology

Objectives

The following are the main objectives of the present study

1. To study the socio economic conditions of the sample respondents in the study area
2. To study the cost and returns of banana cultivation in the study area

Sample Design

This study is based on the Primary as well as secondary data was used in the present study. The primary data was collected through interview Schedule. Conduct in the Kodur mandal of Annamayya district. The sample was down simple random sampling technique for choosing 180 sample respondents from selected Villages of kodur mandal in Annamayya district and for analyzing the data we have been used percentages only. One pragmatic study is presented to personal profile of sample respondent and for in depth analysis.

The age of the sample respondents is expected to relate with their experience and performance in banana cultivation. Normally middle and aged person are doing the banana cultivation systematically and seriously. The age-wise classification of the sample banana cultivators have been presented in table-1.

Table-1
Age-wise distribution of the sample respondents in the study area

Sl. No.	Age of the Cultivator	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Below-35	10 (16.67	13 (21.67)	11 (18.33)	34 (18.89)
2	36-45	30 (50.00)	34 (56.67)	31 (5167)	95 (52.78)
3	46-55	13 (21.67)	08 (13.33)	12 (20.00)	33 (18.33)
4	56 And above years	07 (11.66)	05 (08.33)	06 (10.00)	18 (10.00)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

The table shows that 34 respondents (18.89 per cent) are in the age group of below 35 years, 95 respondents (52.78 per cent) are in the age group between 36-45 years, 33 respondents (18.33 per cent) are in the age group between 46-55 years, and 18 respondents (10.00 per cent) are in the age 56 and above years. It is concluded that 52.78 per cent of the respondents in the age group between 36-45 years.

Literacy Level

Education has a great impact on the economic life of the people. It makes the citizen very responsible in their business activities. Education creates better understanding of work and thereby increases the productivity. In the study area, the sample banana cultivators, on the basis of education, were classified in groups of Illiterate, School Level, and College Level. The table-2 highlights the educational status of the sample banana cultivators.

The table-2 presents that the 24 respondents (13.33 per cent) are illiterates, 91 respondents (50.56 per cent) have up to 10^{th} class, 45 respondents (25.00 per cent) have inter education, 12 respondents (6.67 per cent) have Degree qualification and 08 respondents (4.44 per cent) are Post-graduates. It is concluded that 50.56 per cent respondents are up to 10^{th} class education.

Table-2
Educational-wise distribution of the sample banana cultivators in the study area

Sl. No.	Education	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Illiterate	08 (13.33)	09 (15.00)	7 (11.67)	24 (13.33)
2	Up to 10^{th}	32 (53.33)	28 (46.67)	31 (51.67)	91 (50.56)
3	Inter	13 (26.67)	15 (25.00)	17 (28.33)	45 (25.00)
4	Degree	04 (6.67)	06 (10.00)	02 (3.33)	12 (6.67)
5	PG And above	03 (5.00)	02 (3.33)	03 (5.00)	08 (4.44)

Total	**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

Number of Family Members Engaged in Banana Cultivation

Annamayya district is very popular for its banana cultivation. In the cultivation practices both hired labourers and family labourers have their role. Here, family labourers is an important factor contributing to greater production and productivity in agriculture. The following table-3 stated the details of members engaged in banana cultivation.

Table-3
Family members engaged in banana Cultivation in study area

Sl. No.	No. of family members	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Below-3	30 (50.00)	32 (53.33)	28 (43.33)	88 (48.89)
2	3-5	20 (33.33)	22 (36.67)	18 (30.00)	60 (33.33)
3	5-7	06 (10.00)	04 (6.67)	16 (16.67)	20 (11.11)
4	8 And above	04 (6.67)	02 (3.33)	06 (10.00)	12 (6.67)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

It is understood from the table-3 that the 88(48.89 per cent) of the sample banana cultivators could involve a maximum of below-3 numbers from their families. The participation of the cultivation of 3 to 5 numbers from the family constitute 60(33.33 per cent) and 5 to 7 numbers working on their field have 20(11.11 per cent). Participation of more than 8 numbers from a family is not a general practice. As such family constituted only 12(6.67 per cent).

Occupation in Agriculture

Banana Cultivation in Kodur mandal is a very famous one. The banana cultivators are engaged in cultivation practices and doing other activities like business, government job and the like. Hence, the occupation is both main and secondary. Table-4 explains the details of the banana cultivators' occupation in agriculture.

Table-4
Occupation of the sample Respondents in the study area

Sl. No.	Occupation	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Main	50 (83.33)	53 (88.33)	47 (78.33)	150 (83.33)
2	Secondary	10 (16.67)	07 (11.67)	13 (26.67)	30 (16.67)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

It is evident from the table-4 that out of 180 banana cultivators more than three fourth of the banana cultivators 150(83.33 per cent) selected the banana cultivation in main category whereas only 30(16.67 per cent) selected the cultivators on the secondary basis. The marginal and large banana cultivators are more than 53(88.33 per cent) and 47(78.33 per cent) in the selected the main category. A low 10(16.67 per cent) selected the cultivation on a secondary basis in small size banana cultivators, compared to marginal and large banana cultivators.

The above table-5 the sample banana cultivators represents the Annamayya district in equal per cent in the small marginal and large size banana cultivators. According to form practice in India in banana cultivation those who have below-2.5 acres of lands are called small size banana cultivators and those who have 2.5 to 5 acres of lands are marginal banana cultivators. Likewise those who have above 5 acres of land are called large size banana cultivators.

Table-5
Land Holdings of the sample Respondents in study area

Sl. No.	Land Holdings	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Below-2.5	60 (100.00)			60 (33.33)
2	2.5 to 5		60 (100.00)		60 (33.33)
3	5 to 8			50 (83.33)	50 (27.78)
4	9 And above			10 (16.67)	10 (5.56)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

Years of Experience in Banana Cultivation

The experience of the banana cultivators in the cultivation of banana is another important factor for increasing the area, production and productivity of banana. Experience is helpful to a better understanding of work and thereby it makes the citizen very responsible in their cultivation and choosing the effective channel

for marketing of banana. Table 4.8 indicated the classification of the sample grower based on farming experience.

It is evident from the table-6 that 98(54.44 per cent) of the respondents have below 8 years of experience in the banana cultivation. 39(21.69 per cent) of the respondents have experience of 90 to 18 years. Only 06(10.00 per cent) in the small, 05(8.33 per cent) in the marginal banana cultivators and 05(8.33 per cent) in the large banana cultivators have experience of 29 years and above.

Table-6
Years of Experience in the Banana Cultivation of the sample Respondents

Sl. No.	Experience	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Below-8	33 (55.00)	30 (50.00)	35 (58.34)	98 (54.44)
2	9 to 18	13 (21.67)	15 (25.00)	11 (18.33)	39 (21.67)
3	19 to 28	08 (13.33)	10 (16.67)	09 (15.00)	27 (15.00)
4	29 And above	06 (10.00)	05 (8.33)	05 (8.33)	16 (8.89)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

Water Problems in Banana Cultivation

Irrigation is an important source of banana cultivation. The amount and frequency of irrigation to be given to banana orchard depend on the type of soil and climatic conditions especially rainfall and its distribution, age of the tree and the like. Water problems in banana cultivation can be divided into two categories, adequate and inadequate. Table-7 explains the details of adequacy of water facilities for the banana cultivators in the study area.

Table-7
Water problem of the Banana Cultivation in the study area

Sl. No.	Water problem	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Adequate	43 (71.67)	28 (46.67)	34 (56.67)	105 (58.33)
2	Inadequate	17 (28.33)	32 (53.33)	26 (43.33)	75 (41.67)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

It is clear from the table-7 that 105(58.33 per cent) of the banana cultivators have been facing water problems in banana cultivation. The rest of 75(41.67 per cent) of the banana cultivators are getting sufficient water supply in their field. The table-7 further show that 17(28.33 per cent) of the small size banana cultivators and 32(53.33 per cent) of the marginal banana cultivators are facing inadequate water problem. The same problem in the other case is also 26(43.33 per cent).

Varieties of Banana Cultivated

In India, there are thousands of varieties of banana cultivated, but only about 30 varieties are grown on commercial weighing machine. The search for higher quality and better varieties of banana has been going on for many years. For successful banana growing, it is necessary that the varieties planted in a commercial orchard are productive, of good quality and adoptable to the climate of the tract. Different varieties are suitable for growing in different climate conditions. Table -8 explains the major variety of banana in the sample district.

From the above table-8 that most of the farmers 70(38.89 per cent) cultivators are rasthali variety in their field and 66(36.67 per cent) and 27(15.00 per cent) robusta and chakrakeli respectively. Remaining 17(9.44 per cent) of the cultivate karpoora poovan.

Table-8
Varieties of Banana Cultivation in study area

Sl. No.	Varieties of Banana	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Robusta	20 (33.33)	25 (41.67)	21 (35.00)	66 (36.67)
2	Rasthali	25 (41.67)	20 (33.33)	25 (41.67)	70 (38.89)
3	Chakrakeli	10 (16.67)	11 (18.33)	06 (10.00)	27 (15.00)
4	Karpoora Poovan	05 (8.33)	04 (6.67)	08 (13.33)	17 (9.44)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

From the above table-9 it is well known that the maximum number of banana cultivators 83(46.11 per cent) are affected the problems of shortage of labour at the time of banana cultivation, 55(30.56 per cent) of the banana cultivators are facing the problems of high cost of labour. It is also clear that the 36(20.00 per cent) of them suffer from the inefficient of labour. Only 06(3.33 per cent) of the banana cultivators are not facing any problem in this regard.

Table-9
Labour Problems of the Banana Cultivators in the study area

Sl. No.	Labour Problems	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Shortage of Labour	28 (46.67)	26 (43.33)	29 (48.33)	83 (46.11)
2	High Cost of Labour	16 (26.67)	18 (30.00)	21 (35.00)	55 (30.56)
3	Inefficient of Labour	14 (23.33)	12 (20.00)	10 (16.67)	36 (20.00)
4	No Problem	02 (3.33)	04 (6.67)	(0.00)	06 (3.33)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

Table-10
Annual Income of the sample respondents in the study area

S. No.	Income Levels	Small Farmers	Marginal Farmers	Large Farmers	Total
1	Rs. Below 40000	20 (33.33)	18 (30.00)	07 (11.67)	45 (25.00)
2	Rs. 40001 to 80000	27 (45.00)	25 (41.67)	12 (20.00)	64 (35.56)
3	Rs. 80001 to 120000	10 (16.67)	12 (20.00)	26 (43.33)	48 (26.67)
4	Rs. 120001 and above	03 (5.00)	05 (8.33)	15 (25.00)	23 (12.77)
Total		**60 (100.00)**	**60 (100.00)**	**60 (100.00)**	**180 (100.00)**

Source: Primary Data.
Note: Figures in parentheses indicate percentages.

It is evident from the table-10 clearly reveals that the 64(35.56 per cent) earn income at Rs. 40001 and 80000 from sale of banana, 48(26.67 per cent) get Rs.80001 to 120000 from sale of banana, 45(25.00 per cent) get below Rs. 40000 and 23(12.77 per cent) get above Rs. 120001 and above from sale of banana from an acre per year.

Conclusion

The global production of banana is around 102028.17 thousand tons of which India Contributes 29.19%. Besides India, other major banana producing countries are China, Philippines, Ecuador, Brazil and Indonesia. The table given below shows the major banana producing countries in the world. It is founded from that the out of 180 banana cultivators more than three fourth of the banana cultivators 150(83.33 per cent) selected the banana cultivation in main category whereas only 30(16.67 per cent) selected the cultivators on the secondary basis. The marginal and large banana cultivators are more than 53(88.33 per cent) and 47(78.33 per cent) in the selected the main category. A low 10(16.67 per cent) selected the cultivation on secondary basis in

small size banana cultivators, compared to marginal and large banana cultivators. About 98 (54.44 per cent) of the respondents have below 8 years of experience in the banana cultivation. 39(21.69 per cent) of the respondents had experience of 9 to 18 years.

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