

## COST AND RETURNS STRUCTURE OF SMALL AND LARGE FARMS CULTIVATING BANANA IN ERODE DISTRICT



### Commerce

**KEYWORDS:** Banana Production, Banana Marketing, Agriculture, Banana Cultivation, Problems, Expectations in Banana Cultivation.

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### ABSTRACT

In this paper an attempt is made to study the cost and returns of small and large farms cultivating banana in Erode district. Banana is one of the oldest and world's most important fruit crop. It is a very popular fruit due to its low price and high nutritive value with rich source of carbohydrate and vitamins. It is grown in 130 countries in the world with a total production of 79 million tones. Banana is the largely produced and maximum consumed amongst the fruits cultivated in India. India stands first among the banana cultivating countries of the world with an annual production share of 27.74 per cent of the total harvest. The present study is based on the data collected from the sample respondents.

### INTRODUCTION

India is an agricultural based country. The majority of its population depends upon agriculture for their source of income. It is the largest and the most important industry in India. Indian Government encourages cultivation of horticultural crops like banana, mango, flowers, vegetables and more so as to increase the contribution of agriculture to the national income and to augment the farmers own income. Banana is an important fruit crop of many tropical and subtropical regions of India. It is cultivated in India in an area of 830.5 thousand hectares and total production is around 297.8 lakhs tons. Banana is the oldest and commonest fruit known to mankind. It is nutritious, palatable and easily digestible fruit and available throughout the year. It is rich in carbohydrates, minerals such as calcium, potassium, magnesium, and sodium and phosphorous. Other than fresh fruits, it can be consumed as processed in various forms like chips, powder, flakes, etc. Banana pseudo stem is chopped and used as cattle feed. Also, the leaves are used as plate. The botanical names of banana are Musa Cavendish and Musa Paradisiacal, which belongs to the family Musa.

Banana is a heavy feeder crop. Therefore, for banana production fertility of soil is very important. Rich, well drained, fertile, free working soils with plenty of organic matter is best suited for cultivation. Non-availability of pest resistant quality suckers, lack of awareness of different diseases that affect banana production, pesticides to be used to control the diseases, lack of awareness about crop insurance scheme, inadequate finance to meet the cost of production are some of the problems faced by the growers during cultivation.

### METHODOLOGY

The study is descriptive in nature. The present study required primary data and the data was collected from the farmers through personal interview method. The interview schedule was carefully designed and duly pre-tested. Pilot study was also undertaken and necessary changes were incorporated before finalization of the schedule.

Purposive-cum multistage random sampling technique was employed to select areas and sample farmers covered in the study. The researcher met all the 420 sample respondents living in 42 banana cultivating villages in all the 14 blocks of Erode district. Three banana cultivating villages from each block were selected for data collection. All the analysis and inferences were made on the basis of the primary data. In this study, data were analyzed using Percentage analysis

### ANALYSIS OF COST AND RETURNS OF BANANA

This section attempts to analyze the collected data with reference to cost and returns including various components of cost relating to groups of farms namely small and large farms of Kathali, Monthan, Nendran, Pachanadan, Poovan, Rasthali and Red Banana varieties of plantain in the study area. In the present study, Cost A and Cost C

concepts have been used to analyze the cost structure. Cost-C includes rent on land, interest on fixed capital, land revenue, cess and taxes and the like. Cost A includes cost of human labour, bullock labour, chemical fertilizer, pesticides, sucker cost, farm manure, cost of irrigation, propping and interest on working capital. In the present study, cost has been categorized into Cost A (operational cost) and Cost C (fixed cost) which have been adopted by farm management studies in India.

### Cost and Returns Structure of Overall Farmers (N: 420)

The estimated cost and returns of banana production based on the farm level data collected from the sample of 420 farmers of Erode district is furnished below.

**Table-1 COST AND RETURNS STRUCTURE OF SMALL AND LARGE FARMS CULTIVATING OF BANANA (PER ACRE): N:420**

Item of Cost	Overall					
	Small Farmers		Large Farmers		Overall	
	Value in Rs.	%	Value in Rs.	%	Value in Rs.	%
Value of human labour including family labour	31678.61	44.71	35655.53	44.83	42242.99	44.74
Chemical fertilizers	5404.47	7.63	6015.75	7.56	7179.74	7.60
Pesticides	4556.46	6.43	5066.00	6.37	6068.02	6.43
Sucker cost	2035.37	2.87	2297.07	2.89	2720.32	2.88
Farm manure	3665.84	5.17	4086.00	5.14	4859.38	5.15
Cost of irrigation	671.66	0.95	748.36	0.94	905.90	0.96
Propping	1393.42	1.97	1530.47	1.92	1836.00	1.94
Interest on working capital	3011.97	4.25	3352.47	4.22	4012.30	4.25
<b>Total (Cost-A)</b>	<b>52417.79</b>	<b>73.98</b>	<b>58751.64</b>	<b>73.87</b>	<b>69824.65</b>	<b>73.96</b>
Rent	15992.16	22.57	18050.38	22.70	21326.17	22.59
Interest on fixed capital, land revenue, cess and taxes, depreciation of machinery and implements	2448.17	3.46	2727.72	3.43	3258.80	3.45
<b>Total (Cost-C)</b>	<b>18440.34</b>	<b>26.02</b>	<b>20778.10</b>	<b>26.13</b>	<b>24584.98</b>	<b>26.04</b>
<b>Total Cost in Rs. (Cost A+ Cost C)</b>	<b>70858.13</b>	<b>100.00</b>	<b>79529.74</b>	<b>100.00</b>	<b>94409.62</b>	<b>100.00</b>
Yield per acre in Rs. (TR)	110404.55		120647.64		136608.09	
Net Income in Rs.	39546.42		41117.91		42198.46	
Yield per acre in tones	12.27		12.29		12.28	
Area of land under banana cultivation	2.19		5.43		3.74	

Break Even Analysis (BE)	0.32		0.34		0.37	
N	225		195		420	

Source: Computed data

From table-1, it is observed that the average yield per acre realized by the small farms cultivating banana was 12.27 tonnes. It was worth about Rs. 110404.55 per acre in monetary terms. The net income earned by the small farms was Rs. 39546.42. The total cost of cultivation (Cost A+ Cost C) was Rs. 70858.13, of which the operating cost accounted for Rs. 52417.79 (73.98 per cent) and the fixed cost amounted to Rs. 18440.34 (26.02 per cent). Expenditure on human labour formed the major input component. This item amounted to 44.71 per cent of the total cost. Rent constituted 22.57 per cent (Rs. 15992.16) of the total cost. The percentage shares of chemical fertilizer, pesticide, farm manure, interest on working capital, sucker cost, propping and cost of irrigation were 7.63 percent (Rs. 5404.47), 6.43 per cent (Rs. 4556.46), 5.17 per cent (Rs. 3665.84), 4.25 per cent (Rs. 3011.97), 2.87 per cent (Rs. 2035.37), 1.97 percent (Rs. 1393.42) and 0.95 per cent (Rs. 671.66) respectively. Interest on fixed capital and land revenue formed 3.46 per cent of the total cost.

The quantity of plantain harvested per acre, on an average by the large farms was 12.29 tonnes. The monetary return was Rs. 120647.64. The net income earned by them was Rs. 41117.91. The total cost (Cost A+ Cost C) was Rs. 79529.74, of which operational cost accounted for 73.87 per cent (Rs. 58751.64) and the fixed cost 26.13 per cent (Rs. 20778.10) of the total cost. Human labour amounting to 44.83 per cent of the total cost was the major cost component. Rent constituted the next important item of expenditure with 22.70 per cent (Rs. 18050.38). The percentage shares of chemical fertilizer, pesticide, farm manure, interest on working capital, sucker cost, propping and cost of irrigation were 7.56 percent (Rs. 6015.75), 6.37 per cent (Rs.5066.00), 5.14 per cent (Rs.4086.00), 4.22 per cent (Rs.3352.47), 2.89 per cent (Rs.2297.07), 1.92 per cent (Rs.1530.47) and 0.94 per cent (Rs. 748.36) respectively. Interest on fixed capital and land revenue formed 3.43 per cent (Rs.2727.72) of the total cost.

It was noted that the expenditure pattern on inputs were almost similar in both farms. Operational cost formed about 73.98 per cent in small farm and 73.87 per cent in large farm of the total cost. The cost of human Labour, the major component, constituted more than 44 per cent of the total cost. The next important items of expenditure were rent, chemical fertilizer, pesticide, farm manure, interest on working capital, interest on fixed capital, land revenue, cess and taxes followed by sucker cost, propping and cost of irrigation.

Table-1 also showed that large farms performed better than small farms in terms of yield and income. Small farms usually engaged hired labour and contract labour for agricultural operations. The work performance of contract labour was somewhat less than hired labour and owned (or) family labour. So, much of the yield was affected whereas large farms did the operations with the help of their family members and hired labour. Again small farms engaged the lands on lease basis and carried out agricultural operations. The small farmers gave less importance to make the land more fertile, as after the lease period, the land had to be handed over to the owner of the land. But large farms did the work on their own farms. They carried out agricultural operations with care and they were interested in improving the fertility of the soil. Because of the above said factors, yield of large farms are often better than that of small farms. Since the farm size is very small, the small farmers are not in a position to supervise the farm activities effectively. The weight and number of fruits were also more in the case of large farms than those of smaller farms.

## CONCLUSION

Thus, it is concluded from the analysis that the large farmers have gained more than the small farmers producing banana in Erode district. The main reason is that the large farmers cultivating banana

has adopted advanced methods of cultivation and spent money for protecting their crop. But in order to meet the ever growing and stupendous growth in demand and increase export potential, the base of banana cultivation has to be strengthened by developing improved processing and post-harvesting techniques.

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