ECONOMICS OF BANANA PRODUCTION IN AMRAVATI DISTRICT OF MAHARASHTRA

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ABSTRACT

Maharashtra with an area of 54,200 hectares under banana, an annual production of 13,39,000 tonnes which is top in the country. It can give up to 50 tonnes of fruits per acre and per capita consumption of banana is about 50 kg per head in India. Looking to the increasing popularity of banana, the relevant data were collected from the five villages of Amravati district for working out the cost of cultivation, cost of production, resource productivity and resource use efficiency. The total sample constituted of 60 banana growing cultivators from small, medium and large size groups were selected in order to assess the potentials of crop. The profitability of the crop can be determined from the relationship between the cost incurred in the process of production and the return accrued from it. If the return accrued is greater than the cost incurred, then it can be utilized for the capital formation in agriculture. Economics of production was to be evaluated on the basis of cost A, B, C and also the gross return per hectare from banana were positively co-related with the size of holdings. The production of banana was profitable at all the cost concepts and on all the size group of farmers. The highest input-output ratios at cost' A' cost 'B' and cost 'c' was on small sized group followed by medium sized group and large sized group

Key words : Banana, Production and Profitability.

INTRODUCTION :

India is an agricultural country and it has an agriculture based Economy. The advanced agricultural strategy seeks for the adoption of balanced use of available inputs and diversification of the cultivation business. Balanced use of modern and costly inputs viz. fertilizers, pesticides, improved seeds and irrigation etc are very important. In the plan period, main attention was given to use these inputs efficiently by diversifying the traditional cultivation patterns. Horticultural crops, specially fruit crops have drawn attention of the cultivators as a better earning substituted for the agronomical crops. The increase in the production of fruit crop is mainly attributed to the wider and the efficient use of modern inputs. Bananas have great commercial importance. This is grown under many adverse conditions ranging from tropical to sub tropical climate. Most of the Banana native is to the tropical and sub tropical regions of South-East Asia.

In Amravati district, the main and popular variety of Banana is Basrai. The Plant is 5-6 feet high and gives best quality of fruits and has a demand on a large scale. The stem colour is purple and vigorous leaves are broad and short. The life of plant is 18 month and colour of the fruit is green. Each bunch has 6-7 fingers and each dengue have minimum 72 Bananas. Weight of the bunch is 15-25 kg. and fruit is scented and sweet. After ripening, there are black spots on the fruit. It is resistant to panama disease; cool temperature affects the plant badly.

Banana is a good source of vitamin A and a fair source of vitamin C and B2. These fruits are rich source of minerals like magnesium, Sodium, Potassium and phosphorus and a fair source of calcium and iron. Ripe fruits are delicious and are used for table purpose. In South India, both the plants and the fruits are used extensively in weddings, festivals and for worship. The immature fruits are used for vegetable. Many products are made from Banana such as Jam and dried fruits as an antiscorbutic. Banana ash is rich in alkaline salts and therefore can check acidity in stomach, hearts burn and calic. Ripe fruits taken with tamarind and salt are said to control dysentery. Banana flour is prepared from unripe fruits and Banana powder from ripe fruits. Starch is manufactured from the psedostem. The pseudostems of Banana of all types have been used for manufacturing paper boards in South India. The leaf of Banana is used as serving meals, the sheaths and leaves, are used for making crude crops. Banana yields a good fibre, the species musa textiles is well known for their strong fibre quality. Banana flour is made into gruel and diluted with milk is good for patients suffering from gastritis. Even bad ulcers are cured by smelling a paste of aromatic and sweet fruits.

Banana provide a more balanced diet than many fruits. An acre of Banana yields 15 million calories of energy as compared to one million of wheat. The annual per capita consumption of Banana is about 50kg. per head in India. Banana satisfies the definition of good food i.e. one head contains an ample proportion of nutritive constituents which is easily digested and absorbed at reasonable cost and is one of the most easily assimilation of all fruits.

Total area under Banana in India was 3.39 lakh hectares and production is 61.76 lakh tonnes in 1997-98. Banana is the second largest fruit after mango accounting for 21.87% of the total fruit production from 10.49 percent of the area. In India kerala, Tamil-nadu,0rissa, Karnataka, West-Bengal, Andra-Pradesh, Maharashtra, Gujrat, Assam, Bihar and Madhya-Pradesh are the major Banana growing states. Maharashtra with an area of 54,200 hectares under Banana an annual production of 13,39,000 tonnes tops in both area and production in the country. It can give up to 50 tonnes of fruits per acre within a year of 15 months. In Amravati district, area under Banana was 410 hectares and production was 27,060 metric tonnes during the year 1998-99.

The prosperity of the region and the economic stability to the growth mainly depends upon the optimum scale of the crop enterprise and it's rationalized production, Banana cultivation deserves special attention from this point of view. In view of the similar agro-climatic condition and increasing popularity of Banana cultivation in Amravati district, it is felt necessary to study Economics of production of Banana in Amravati district in order to assess the potentials of crop, the present study is an attempt in this direction with the following specific objectives.

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(i) To study the economic characteristics of selected Banana growers,
(ii) To study per hectare input utilization levels in cultivation of Banana.
(iii) To study per hectare cost of cultivation of Banana.
(iv) To work out per hectare production in Banana cultivation.
(v) To study the economics of production of Banana.

METHODOLOGY :

The present study was undertaken in Amravati district. Five villages namely Bhambora, Talegaon, Umarkhed, Marda, Teosa were purposively selected where the Banana crop was extensively grown. The total sample constituted of 60 Banana growing cultivators and then these were divided into three sized groups i.e. small, medium and large. The average size of holding of small, medium and large sized groups were 0-5.00 hectares, 5.01-10.00 hectares and more than 10.01 hectares respectively. From this size of land holding groups, 20 cultivators from each groups were randomly selected in order to study the economics of production. Due to non-availability of records, the survey method for data collection was adopted to obtain the necessary information from the cultivators. The information regarding cropping pattern, input utilization, cost incurred for different operations and returns was collected from the farmers of the study area pertaining to the year 1998-99. The collected data were compiled, tabulated and analysed to accomplish the objectives of present study.

RESULTS AND DISCUSSION :

The profitability of crop production can be determined from the relationship between the cost incurred in the process of production and the return accrued from it. If the return accrued is greater than the cost incurred then it can be utilized for the capital formation in agriculture. The cost of production differs from farm to farm and crop to crop. Because each farmer has to combine the resources for the production in the way that seems to be most practical for his conditions.

Analysis of these details provides the useful information to find out the defects and the dis-economics in the process of production. The Economics of production can be easily understood from the various components of the production cost of a particular commodity. The information regarding average size of holding, cropping pattern, per hectare input utilization, cost of cultivation, gross and net returns per metric tonne was analyzed and the results are presented and discussed as under.

The total average size of holding of Banana growers was observed to be 4.42 hectares. The total land holding in small, medium and large group in Banana growers was observed to be 1.54 hectares, 3.30 hectares, 8.42 hectares respectively. The cropping intensity was 142.53 percent.

The net sown area of selected holdings for small group was 1.54 hectares, for medium group 3.22 hectares and for large sized group was 7.98 hectares respectively. The overall average was 4.24 hectares.

The area covered by Banana crop in small, medium and large sized groups were 18.63 percent, 11.34 percent and 9.64 percent of the gross cropped area and 11.22 percent for sample as a whole.

In the study area, during kharif season, cotton, soyabean and hybrid jowar etc. are prominently cultivated crops besides Banana. The average per farm area under Banana was 0.64 hectares. For the Banana growers, cotton, soyabean and hybrid-Jowar were important kharif crops occupying 23.50 percent, 14.21 percent and 9.12 percent of area in overall groups respectively.

It is seen that the total human labour requirement for cultivating one hectare of Banana was 319.71 days. It was observed that as the size of holding increases, the human labour requirement also increases. It is further observed that as the size of holding increases, the family labour contribution in cultivation decreases. The average per hectare bullock labour requirement was 28.83 pair days.

Regarding planting material, the number of plants per hectare is observed that the selected Banana grower on an average used 4,863.50 plants per hectare. The per hectare manures used for Banana cultivation at overall level was found to be 47.48 cart loads per hectare. An overall level, the farmers applied 217.70 kg./ha. of nitrogen fertilizer. It was observed that the use of nitrogen was highest i.e. 223.75 kg./ha. in large sized group. The use of phosphorus at overall level was 127.36 kg/

Table 1. Per hectare gross income, net income and output-input ratio of Banana crop. N=60

S.N.	Particulars	Small	Medium	Large	Average
1	Production per ha. in metric tonne	45.28	48.63	46.85	46.92
2.	Total value of output (Rs.)	1,29,048,.00	1,38,595.50	1,33,522.50	1,33,722.0
3.	Cost of cultivation /ha.(Rs)				
	Cost 'A'	31392.29	39934.74	40570.05	37299.02
	Cost 'B'	54930.95	62831.80	62598.99	60120.58
	Cost 'C'	63084.50	66343.55	65473.04	64967.03
4.	Net return /ha.(Rs.)				
	Cost 'A'	97655.71	98660.76	92952.45	96422.97
	Cost 'B'	74117.05	75763.70	70923.51	73601.42
	Cost 'C'	65963.50	72251.95	68049.46	68754.97
5.	Cost of production/metric tonne (Rs.)	1393.20	1364.25	1397.50	1384.98
6.	Net return /metric tonne (Rs.)	1456.79	1485.74	1452.49	1465.00
7.	Output-Input ratio at				
	Cost 'A'	4.11	3.47	3.29	3.62
	Cost 'B'	2.34	2.20	2.13	2.22
	Cost 'C'	2.04	2.08	2.03	2.05

ha, and the use of potash at overall level was found to be 222.81 kg./ha. In Banana grower, the nitrogen and potash is highly applied than phosphorus. It is observed from these level of N.P.K. application that the size of holding and level of application of N.P.K. are directly related.

In case of large sized group, per hectare average cost 'A' was highest i.e. Rs. 40,570.05 in medium sized group, it was Rs. 39,934.74 and lowest i.e. Rs. 31,392.29 was in case of small sized group and its overall average was Rs. 37,299.02. This increasing trend in cost 'A' with increase in size of holding was mainly due to more input utilization. Per hectare cost 'B' in respect of small, medium and large sized groups were Rs. 54,930.95, Rs. 62,831.80 and Rs. 62,598.99 respectively and the overall average was worked out to Rs. 60,120.58.

The cost 'C' per hectare for sample as a whole was Rs. 64967.03 and Rs. 63084.50, Rs. 66343.55, Rs. 65473.04 for small, medium and large sized groups respectively.

The rental value of land and hired human labour were the major items of cost contributing 34.32 per cent and 14.51 per cent to the total cost. Fertilizer was also an important cost item accounting to 9.50 per cent. The average yield of Banana was for 46.92 metric tonne per hectare.

The gross return per hectare in case of small, medium and large sized groups were Rs. 1,29,048, Rs. 13,595.50 and Rs. 1,33,522.50 respectively. The average cross return per hectare was Rs. 1,33,722 per hectare net income in respect of small, medium and large sized groups were Rs. 65,963.50, Rs. 72,251.95 and Rs. 68,049.46 respectively and overall average was Rs. 68,754.97. In case of small, medium and large sized groups per metric tonne, the cost of production of Banana were Rs. 1,393.20, Rs. 1,364.25 and Rs. 1,397.50 respectively. The overall average was worked out to Rs. 1,384.98 per metric tonnes and the net returns were Rs. 1,456.79, Rs. 1485.74, Rs. 1,452.40 respectively in small, medium and large groups and the average for all the three groups was Rs. 1,465.

The input-output ratios for overall sized groups of farm at cost 'A', 'B' and 'C' were worked out to 3.62, 2.22 and 2.05 respectively.

CONCLUSIONS :

The following broad conclusions have been drawn from the above results and discussions.

1. Hired human labour utilization were increased with the increase in size of holdings. While family labour utilization was decreased with the increase in size of holdings. This is inversely related with each other.
2. Per hectare cost 'C', the gross return and the net return were increased with the increase in size of holdings.
3. Input-Output ratios at average cost 'A', 'B', 'C' were highest in small sized group followed by medium and large sized group.
4. Per metric tonne cost of production was increased with the increase in size of holding and per metric tonne net return were decreased with increase in size of holdings. The net return per metric tonne was highest in medium sized group followed by small and large sized group.

REFERENCES

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