

Economics of ber production in Beed district of Maharashtra

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ABSTRACT

Investigation was carried out during the year 2010-2011. Multistage sampling design was adopted in selection of district, tehsils, villages and cultivators. In all 48 cultivators were selected for present study. The techniques like mean, percentage, ratio and cost concept of Cost-A, Cost-B, and Cost-C were used to analyze the data. The results revealed that use of family human labour was more than hired human labour in ber production. Per hectare net profit was Rs. 21,628.20 on ber farm. The output-input ratio was 1.57 in ber orchard. Per quintal cost of production was Rs. 412.78 in ber orchard.

KEY WORDS : Ber, Net profit, Cost-C, Gross returns

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Ber (*Ziziphus mauritiana*) is cultivated all over the drier parts of the Indian subcontinent for its fresh fruits, which are rich in vitamins (C, A, B complex) and minerals. Ber or Indian jujube belongs to family Rhamnaceae. Ber is native of India. It is believed that the Indo-Malaysia region (South and South-east Asia) is the centre of both evolution and distribution of the genus *Ziziphus*.

The major production area of ber is in the semiarid and arid parts of the country. It is widely cultivated in Punjab, Haryana, and Maharashtra. Eighteen species are found in the Indian subcontinent from the Himalayas to Capecamorin and from the Western region to the Eastern wet tropics. The increase demand may lead to increase in prices of ber and farmers may be benefited. The need was felt to answer some queries such as cost, returns and profitability. Keeping in view the above aspects, the present study was undertaken.

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METHODOLOGY

Multistage sampling design was adopted in selection of district, tehsils, villages and ber growers. At first stage, Beed district was purposely selected on the basis of availability of ber garden. At second stage, two tehsils of Beed district were selected on the basis of highest area under sole fruit crop of ber. The selected tehsils were Kajj and Beed. At third stage, from each selected tehsil six village clusters was selected on the basis of availability of ber garden. In the fourth stage separate list of ber growers was taken from each village cluster and from that list, four ber growers were selected randomly. The cross sectional data were collected from forty eight growers with the help of pre-tested schedule for the year 2010-2011. The cost concepts viz., Cost-A, Cost-B and Cost-C were used to analyze the data in present investigation. Cost-A includes the items of cost like hired human labour, machine labour, manure, fertilizer, plant protection, irrigation, land revenue, incidental expenditure, interest on working capital and depreciation on asset. Then, Cost-B consists of Cost-A plus, rental value of land and interest on fixed capital and amortized establishment cost. Cost-C includes Cost-B plus imputed value of family labour. Evaluation of cost item was as follows. Human labour was measured in man day. One man day consisted with 8 hours. Labour cost evaluated at the rate of Rs. 100 per day for male and Rs. 80 per day for female.

Bullock labour was charged at the rate of Rs. 250.00 per day for one pair of bullocks. Machine labour in case of owned machine was evaluated as per the hired charge prevailed in the village and in case of hired machine as per the actual amount paid was Rs. 100 per hour. Rate prevailing in the market for nitrogen, phosphorus and potash was Rs. 12.7 per kg, Rs. 22.25 per kg and Rs. 8.33 per kg, respectively. One cartload of manure was considered as four quintals and its prevailing price was Rs. 50 per quintal.

ANALYSIS AND DISCUSSION

The findings of the present study have been summarized under following heads:

Physical inputs and outputs in ber production:

Per hectare physical inputs and outputs of ber production were calculated and presented in Table 1. The use of hired human labour was 36.77 man days. Per hectare use of family human labour were 45.98 man days. It was observed that utilization of family labour was higher than hired labour. Utilization of bullock labour per hectare was 6.45 pair days. On the contrary, machine labour was used as 5.26 hours on the ber farm. On an average, utilization of manures per hectare was found to be 51.25 quintals. Average use of nitrogen,

Table 1: Per hectare physical inputs and outputs in ber production (unit/ha)

Particulars	Unit	Quantity
Input		
1. Hired labour	Man day	36.77
2. Bullock labour	Pair day	6.45
3. Machine labour	Hour	5.26
4. Manure	q	51.25
5. Fertilizers	kg	
Nitrogen		80.72
Phosphorus		62.25
Potassium		49.96
6. Family labour	Man day	45.98
Output		
7. Main produce	q	91.17

phosphorus and potash fertilizer was 80.72 kg, 62.25 kg and 49.96 kg per hectare at overall level, respectively.

Cost of cultivation of ber production:

Per hectare item wise expenditure in ber production was estimated and is presented in Table 2. The results revealed that, cost-C was higher as Rs. 37632.30 in ber orchard. Among

Table 2: Per hectare annual cost of ber cultivation

Particulars	Quantity	Amount (Rs./ha)	Per cent
1. Hired human labour	36.77	3677	9.78
2. Bullock pair	6.45	1612.5	4.29
3. Machine labour	5.26	526	1.40
4. Manure	51.25	2562.5	6.80
5. Fertilizers			
Nitrogen	80.72	1012.25	2.69
Phosphorus	62.25	1385.06	3.69
Potassium	49.96	416.17	1.10
6. Irrigation		1012.25	2.69
7. Plant protection charges		2732.91	7.27
8. Incidental charges		200	0.53
9. Repairs		250	0.67
10. Interest on working capital		2000.27	5.31
11. Depreciation on capital assets		275.75	0.73
12. Land revenue and other taxes		67.5	0.18
13. Cost -A (Σ item 1 to 11)		17730.16	47.13
14. Amortized establishment cost		5004.48	13.30
15. Rental value of land		9809.25	26.07
16. Interest on fixed capital		490.41	1.30
17. Cost-B (Σ item 12 to 15)		33034.30	87.80
18. Family labour (man days)	45.98	4598	12.21
19. Cost -C (Σ item 16 to 17)		37632.30	100

the various items of expenditure, the proportionate share of rental value of land was predominant *i.e.* 26.07 per cent followed by labour *i.e.* 12.21 per cent. Also the share of plant protection were higher *i.e.* 7.27 per cent. In regard to ber orchard gross return was Rs.59260.50.

Per hectare costs and returns from ber cultivation:

Per hectare yield, gross returns and net returns of Ber of

Table 3: Per hectare costs and returns from ber cultivation		
		(Rs./ha)
	Particulars	Ber
1.	Gross returns	59260.50
2.	Cost-A	17730.16
3.	Cost-B	33034.30
4.	Cost-C	37632.30
5.	Farm business income (Gross return minus cost-A)	41530.34
6.	Family labour income (Gross return minus cost-B)	26226.20
7.	Net profit (Gross return minus cost-C)	21628.20
8.	Output-Input ratio	1.57
9.	Per quintal cost of production	412.78

sample farms were worked out and presented in Table 3. The results revealed that the gross return was Rs. 59260.50. The per hectare net profit was Rs. 21628.20. It was clear that farm business income, family labour income and net profit was Rs. 41530.34, Rs. 26226.20 and Rs. 21628.20, respectively in Ber garden. The output-input ratio was higher as 1.57 in ber orchard. Per quintal cost of production was Rs. 412.78. Similar results were observed with respect to output-input ratio by Vitonde *et al.* (2003) with respect to output-input ratio.

Conclusion:

It is concluded that output- input ratio of ber was 1.57 which showed that ber fruit was found to be profitable venture in Beed district.

REFERENCES

- Vitonde, A.K., Taide, B.B., Kadu, P.N. and Sonawane, S.J. (2003). Economics of production and marketing of Ber in selected area of Solapur district. *Indian J. Agric. Mktg. Conf. Spl.*,