I J T A
© Serials Publications
National Academy of Agricultural Science (NAAS) Rating : 3.03

Economics of Production of Greengram In Parbhani District

M. S. More*, J. L. Katkade* and R. V. Chavan*

ABSTRACT: *An attempt has been made to examine the economics of production of greengram in Parbhani district. The investigation was based on the data collected by survey method from 60 Green gram growers from Parbhani district.*

The results indicated that the main product of green gram was 9.55 q/ha. In production process, rental value of land, bullock labour, hired human labour and interest on fixed capital were the major items of the cost. Per hectare total cost (cost 'C') was Rs. 17973.20. The proportion of cost 'A' in total cost was 51.35 per cent, while proportion cost B was 91.28 per cent and output-input ratio was 2.24 indicating that greengram is profitable enterprise.

INTRODUCTION

Greengram (*Vigna radiate* L.) has been cultivated since ancient times in India. In human ditet, green gram plays important role by providing the highest digestible protein than any other pulses. It provides ascorbic acid when it is allowed to sprout. The green pods are used as vegetable, split grains are used as *dal* and straw and husk as fodder for cattle. Unlike other pusles, it is said to be easily digestible without producing heaviness. It is also used as green manuring crop. The crop has a restorative effect on soil. It also helps for preventing the soil erosion. It is an ideal source of proteins and amino acids.It is an excellent source of high quality protein. It contains about 25 per cent protein of high digestibility. Vitamin C is synthesized in sprouted seeds of mungbean. Looking to the food habit of majority of Indian population which is vegetarian, it becomes more important because it fulfill the protein requirement. It is consumed as dal, halwa, namkeen, snacks and many other preparations. By keeping in views its importance, study was carried out with following specific objectives.

Objectives

1. To study socio-economic characteristics of greengram growers.
2. To examine cost and returns in greengram cultivation.

METHODOLOGY

Multistage sampling design was adopted for present study. In the first stage Parbhani district of Maharashtra state was selected purposively because this district is well known for growing greengram.

In second stage Parbhani and Jintur tehsils were selected on the basis of highest proportionate area. In third stage five villages from each tehsils were selected on the basis of highest area. A list of greengram growers was obtained from revenue record, six greengram growers were selected from each village thus 60 greengram growers were selected for present investigation. Required cross section data was collected in specially designed schedule by interview method. Data pertained for the year 2011-12.

Statistical tools like arithmetic mean, percentage and ratios were used for estimating the results. Cost concepts like cost 'A', cost 'B' and cost 'C' were used.

RESULTS AND DISCUSSION:

Socio-economic characteristics of greengram growers:

From Table 1 it is revealed that the middle age (55.00 per cent) farmers are involved more in this profession. Educational status revealed that more than half samples were attended high school (51.67 per cent) and on an average family size of selected greengram growers composed of 6.29 members in their family.

* Department of Agril. Economics, Vasantrao naik Marathwada Krishi Vidyapeeth, Parbhani – 431402 (M.S.) India

As regards occupation it was noticed that, majority of greengram growers having agriculture as main source of occupation. The average size of land holding was 3.01 hectares. Proportion of rainfed area was more than irrigated area.

Table 1
Socio economic characteristics of greengram growers

(N=60)

	Age wise distribution		
Sr. No.	Age groups	Number	Per cent
1	Young (upto 30 yrs)	10	16.67
2	Middle (30 to 45 yrs)	33	55.00
3	Old (above 45 yrs)	17	28.33
	Educational status		
1	Illiterate	14	23.33
2	High school	31	51.67
3	College	15	25.00
	Family size		
1	Male	2.47	39.26
2	Female	2.07	32.89
3	Children	1.75	27.85
	Total	**6.29**	**100.00**
	Occupational distribution		
1	Only Agriculture	47	78.33
2	Agriculture and other	13	21.67
	Per farm land use pattern	***Area in ha***	***Per cent***
1	Total area	3.01	100.00
2	Irrigated area	1.00	33.22
3	Rainfed area	2.00	66.45
4	Permanent fallow area	0.01	0.33
5	Net sown area	3.00	99.66

Per hectare physical input and output of greengram production

Input utilization for greengram cultivation was worked out and presented in Table 2. Input utilization for greengram showed that per hectare hired human labour utilized was 23.24 mandays. While family human labour utilization in greengram cultivation was 11.51 mandays. Per hectare use of bullock labour was 4.11 pair days. Per hectare seed used in greengram production was 13.15 kg. Use of plant protection was to the tune of 0.89 litres. Per hectare use of chemical fertilizer was to the tune N 15.2 kg, P 31.5 kg and K 7.24 kg.

It was noticed from the table that per hectare main produce yield was 9.55 quintals while by produce yield was 4.78 q.

Table 2
Per hectare physical inputs and output of greengram cultivation

Rs/ha

Sr. No.	*Particulars*	*Unit*	*Unit Required*
	Input		
1	Hired human labour	Man day	23.24
	Male	9.45	
	Female	13.89	
2	Bullock labour	Pair day	4.11
3	Machine labour	Hour	3.18
4	Seed	Kg	13.15
5	Manure	Q	1.89
6	Nitrogen	Kg	15.20
7	Phosphorous	Kg	31.56
8	Potash	Kg	7.24
9	Plant protection	Lit	0.89
10	Irrigaiton	No.	-
11	Family human labour	Man day	11.51
	Male	No.	6.21
	Female	No.	5.30
	Output		
1	Main produce	q	9.55
2	By produce	q	4.78

Table 3
Per hectare cost of cultivation of greengram

(Rs/ ha)

Sr. No.	*Particulars*	*Cost*	*Per cent*
1	Hired human labour	3084.30	17.16
A	Male	1417.50	7.9
B	Female	1666.80	9.27
2	Bullock labour	1438.50	8.00
3	Machine labour	954	5.31
4	Seed	578.60	3.22
5	Fertilizers	472.40	2.63
	Nitrogen	106.40	0.59
	Phosphorous	268.26	1.49
	Potash	97.74	0.54
6	Manures	1134.00	6.31
7	Plant protection	311.50	1.73
8	Irrigation	-	-
9	Land revenue	87.17	0.48
10	Incidental expenditure	192	1.07
11	Interest on working capital	483.63	2.69
12	Depreciation on asset	493.00	2.74
13	Cost – A (Σ 1 to 10)	9229.10	51.35
14	Interest on fixed capital	549.22	3.05
15	Rental value of land	6627.38	36.87
16	Cost – B (Σ 12 to 13)	16405.70	91.28
17	Family human labour	1567.5	8.72
A	Male	931.50	5.18
B	Female	636.00	3.54
18	Cost – C (Σ 14 to 15)	17973.20	100

Cost of cultivation of greengram production

Per hectare cost of cultivation was compuled and presented in Table 3. Per hectare total cost with regards to greengram was Rs. 17973.20 while cost A was Rs. 9229.10 and cost B was Rs. 16405.70. Per cent share of cost A was 51.35 per cent while cost B was 91.28 per cent. Among the various items of expenditure the per cent share of rental value of land was predominant as 36.87 per cent followed by hired human labour 17.16 per cent, machine labour 5.31 per cent and family human labour 8.72 per cent.

Profitability of greengram

Per hectare gross return, farm business income, family labour income, net profit, output input ratio and per quintal cost of production of main product were calculated and presented in Table 4.

It was observed that gross return on greengram farm was Rs. 40287.30. Farm business income, family labour income and net profit were 31058.20, 23881.60 and 22314.10 respectively. Output input ratio was 2.24 indicating that the green gram is a profitable enterprise per quintal cost of production was Rs. 1882.01.

Table 4
Per hectare profitability in greengram production

Sr. No.	*Particulars*	*Rs/ha*
1	Return from a main produce	40048.30
2	Return from by produce	239.00
3	Gross return (" 1 to 2)	40287.30
4	Cost – A	9229.10
5	Cost – B	16405.70
6	Cost – C	17973.20
7	Farm business income (Gross return minus cost - A)	31058.20
8	Family labour income (Gross return minus cost B)	23831.60
9	Net profit (Gross return minus cost-C)	22314.10
10	Output input ratio (Gross return divided by cost-C)	2.24
11	Per quintal cost of production (cost-C divided by main produce quality)	1882.01
12	Output-input ratio	2.24

REFERENCES

Handiganur A. Y., (1998), The production and marketing performance of pulses in Karnatak, *Karnataka J. Agric. Econ.*, **43(5):** 413-415.

Ghulghule J. N., Thombre A. P. and More S. S., (2009), Economics of production of greengram in marathwada region of Maharastra state, *Agriculture Update* 4 (1&2): 41-43.

Singh A. J., K. Sethi, A. Kaur and S. Sekhon, (1990), A study into production behaviour of pulses in India with special reference to Punjab State, *Agric. Situ. India,* **44(9):** 707-713.