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Saransh Kumar Sharma
M.Sc., Department of
Agricultural Economics,
College of Agriculture,
Raipur, Chhattisgarh, India

Mahendra Kumar Deshmukh
Assistant Professor, Department
of Agricultural Economics, Sant
Kabirdas College of Agriculture,
Kabirdham, Chhattisgarh, India

An economic analysis of seed production of chick pea in Kabirdham district of Chhattisgarh

Saransh Kumar Sharma and Mahendra Kumar Deshmukh

Abstract

This study is based on "An economic analysis of seed production of chickpea in Kabirdham district of Chhattisgarh". The study was conducted in Kawardha and Lohara blocks in the Kabirdham district of Chhattisgarh. The average size of holding and cropping intensity of chickpea seed grower were 6.78 ha and 189.82 per cent respectively. The total cost of cultivation of chickpea came to Rs. 36331.71 per hectare. On an average rental value of owned land 23.39 per cent, total human labour 26.42 per cent, manure and fertilizer 9.63 per cent, irrigation charge 0.68 per cent, machinery charges 15.13 per cent, plant protection 2.20 per cent, seed 14.58 per cent, interest on working capital 2.73 per cent, interest on fixed capital 2.47 per cent and depreciation on fixed capital 1.51 per cent and land revenue 0.03 respectively.

The Cost A1 Cost A2 was Rs. 25331.59 because leased in case are not found in the sample household. Cost B1 and Cost B2 was registered Rs. 26331.83 and Rs. 36331.71 respectively. Cost C1, Cost C2 and Cost C3 were registered Rs. 27931.83, Rs.37931.71 and Rs. 37969.64 respectively. Gross income, net income, family business income was Rs 126255, Rs 89923.29 and Rs 100923.41 respectively. Yield of main product and by-product was 18.5 quintal and 11.5 quintal which gives Rs 124875 and Rs 1380 income respectively. Return over different cost A1, cost A2, cost B, cost B1, cost B2, cost C1, cost C2 and cost C3 were Rs 100923.41, Rs 100923.41, Rs 100023.29, RS 91523.29, Rs 98323.17, Rs 98423.29, Rs 89923.29 and Rs 89886.96.

Keywords: Cost and returns, profitability of chickpea

Introduction

Seed is the fundamental and most basic contribution for manageable farming. The reaction of any remaining sources of info relies upon nature of seeds generally. Chhattisgarh Rajya Beej Nigam was shaped in the year 2004. Seed is the main contribution to expanding usefulness in agriculture. It is accepted that hereditarily great quality seed alone can build creation up to 20 percent sources of info like compost, water and so forth help to understand the possible guzzled in seed.

India is the bigger pulses maker and customer. In Indian pulses request is a significant for the world economy. India represents around 24% of world production of pulses and 30 percent of worldwide imports. The stagnation of production of pulses from 1960s to 1990s, the last 15 years have seen a twofold production of pulses in India. In 2017, India created pulses about 23 MT. In 2019, India three additional creating states was Madhya Pradesh (7.81MT), Rajasthan (3.68MT) what's more, Uttar Pradesh (2.40MT). In Chhattisgarh absolute pulse production was 0.54 MT.

Materials And Methods

Chhattisgarh state consists of 28 districts, out of which Kabirdham district has been selected purposely. Kabirdham district has four blocks, viz., Kawardha, Bodla, Pandariya, and S.Lohara. Out of these, 2 blocks were selected, which are Kawardha and S.lohara, because these two blocks contribute the majority of the area of total seed production of chickpea. farmers from each of the two selected blocks were sampled randomly to collect the required information. In all, a sample of 67 farmers were selected for the present study.

Analytical Tools

Cost Concepts

Cost A2= Cost A1+Rent paid for Leased in Land.

Cost B1 = Cost A1+Interest on value of Owned Capital assets (excluding land)

Corresponding Author
Saransh Kumar Sharma
M.Sc., Department of
Agricultural Economics,
College of Agriculture,
Raipur, Chhattisgarh, India

Cost B2 = Cost B1+rental value of owned land (Net of land revenue) and rent paid for leased-in land.

Cost C1= Cost B1+ Imputed value of Family Labour.

Cost C2 = Cost B2+Imputed value of Family labour.

Cost C3 = Cost C2*+ value of management input at 10% of cost C2.

Income measures

(a) Gross income

It includes the final price of main product and by product of the crop.

Gross income = Main product income + By product income

(b) Net income

Net income = Gross income – Cost C

(c) Family labour income

It is measured on earning of a farmer and his family for his labour and managerial work. It is equal to gross income minus total expenses excluding wage of unpaid family labour.

Family labour income = Gross income – Cost B

(d) Farm business income

It is a measure of earning of farmer and his family for his capital investment, labour and managerial work.

Farm business income = Gross income – Cost A1

(e) Farm investment income

This is the sum of net income, rental value of owned land and interest on fixed capital.

Farm investment income = Farm business income – Imputed value of family labour.

(f) Input-output ratio

It can be expressed as the ratio of output to input. The ratio was calculated as:

Input-output ratio = O/I

Where, O = Total output

I=Total input

Result and Discussion

Cost and Returns of Seed Production of Chickpea

Input wise cost of cultivation of chickpea

The cost incurred on the various input factor per hectare in the production of chickpea was work out, and presented in table - 1 indicate that the total cost of cultivation of chickpea came to Rs. 36331.71 per hectare. On an average rental value of owned land 23.39 per cent, total human labour 26.42 per cent, manure and fertilizer 9.63 per cent, irrigation charge 0.68 per cent, machinery charges 15.13 per cent, plant protection 2.20 per cent, seed 14.58 per cent, interest on working capital 2.73 per cent, interest on fixed capital 2.47 per cent and depreciation on fixed capital 1.51 per cent and land revenue 0.03 respectively.

Table 1: Cost cultivation of chickpea

S. No.	Particulars	Amount(Rs.)	%
1	Family Labour	1600	
2	Hired Labour	8000	
	Total Human labour	9600	26.42
3	Bullock charges	0	0
4	Machinery charges	5500	15.13
5	Seed	5300	14.58
6	Manure & Fertilizers	3500	9.63
7	Irrigation charges	250	0.68
8	Plant protection	800	2.20
9	Registration fees	50	0.13
10	Supervision fees	300	0.82
11	Seed testing fees	75	0.20
12	Interest on working capital	993.75	2.73
13	Total input cost	26368.75	72.57
	Fixed Cost		
13	Depreciation of fixed capital	550.84	1.51
14	Interest on fixed capital	900.12	2.47
15	Rental value of owned land	8500	23.39
16	Land revenue	12	0.03
	Total Cost	36331.71	100

Cost of cultivation on the basis of cost concept

Per hectare cost of cultivation on the basis of cost concept was worked out and presented table 4.13. It revealed that Cost A1 Cost A2 was Rs. 25331.59 because leased in case are not

found in the sample house hold. Cost B1 and Cost B2 was registered Rs. 26331.83 and Rs. 36331.71 respectively. Cost C1, Cost C2 and Cost C3 were registered Rs. 27931.83, Rs.37931.71 and Rs. 37969.64 respectively.

Table 2: Breakdown cost of chickpea

S.no.	Particulars	Amount (Rs.)
1	CostA1	25331.59
2	CostA2	25331.59
4	Cost B1	26231.71
5	Cost B2	34731.71
6	Cost C1	27831.71
7	Cost C2	36331.71
9	Cost C3	36368.04

Yield and return of Chickpea

Table indicated that yield and return of chickpea, it was observed to be Rs 126255, Rs 89923.29 and Rs 100923.41, for Gross income, net income, family business income respectively. Yield of main product is 18.5 quintal and by product is 11.5 quintal which gives Rs 124875 and Rs 1380 income respectively.

Table 3: Yield and return of Chickpea.

S. No.	Particulars	Amount (Rs.)
1	Product income	124875
2	By product income	1380
	Yield	
3	Main product -18.5	
	By product - 11.5	
4	Gross income	126255
5	Net income	89923.29
6	Family business income	100923.41

Return over different cost of Chickpea

Return over different cost was worked out and shown in table 4.15. It was observed to be Rs 100923.41, Rs 100923.41, Rs 100023.29, Rs 91523.29, Rs 98323.17, Rs 98423.29, Rs 89923.29 and Rs 89886.96. Over cost A1, cost A2, cost B, cost B1, cost B2, cost C1, cost C2 and cost C3 respectively.

Table 4: Return over different cost

S. No	Particulars	Amount(Rs.)
1	CostA1	100923.41
2	CostA2	100923.41
4	Cost B1	100023.29
5	Cost B2	91523.29
6	Cost C1	98423.29
7	Cost C2	89923.29
9	Cost C3	89886.96

Conclusion

The average family size was 5.0 and average literacy percentage was about 61.54 per cent in the study area. Agriculture was the main occupation 74.03 per cent in the study area. The average size of holding of chickpea seed grower was 6.78 ha. The average cropping intensity observed in the study area was 189.82 per cent. Total cost of cultivation of chickpea per hectare was observing Rs 36331.71. Return of chickpea, it was observed to be Rs 126255, Rs 89923.29 and Rs 100923.41, for Gross income, net income, family business income respectively. Yield of main product is 18.5 quintal and by product is 11.5 quintal which gives Rs 124875 and Rs 1380 income respectively.

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