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## Study on the cost and return of paddy seed production in Jaikopeshwar Nath Krishi producer company limited Gariaband district of Chhattisgarh

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### Abstract

The purpose of this study was to evaluate the Performance of Paddy Seed Production Program at Jaikopeshwar Nath Krishi Producer Company Limited specialized in production and processing of paddy seeds in Fingeshwar block of Gariaband district. The study area's main crop was paddy. The cost of paddy seed production per hectare was calculated to be Rs. 53826.48, with a net profit of Rs. 135809 per hectare for the producer. The input-output ratio of paddy seed cultivation was estimated to be 1:1.39. According to the study, producers should be encouraged to use the most up-to-date agriculture machinery and technology in order to reduce labour cost and cultivation cost, as well as to use certified and high quality seeds for increased productivity.

**Keywords:** Performance, cost and return in the of paddy seed production

### 1. Introduction

Agriculture drives the Indian economy, with 60 percent of the Indian population involved directly or indirectly. Agriculture and its related industries contribute approximately 17 percent of overall GDP and employ 53 percent of the workforce. India has seen multiple agricultural revolutions, but in the last two decades it has been solely dedicated to meeting demand due to rapid increase in consumption. Major corporate houses like JK seed, National Seeds Corporation Ltd. Jaikopeshwar Nath Krishi Producer Company Limited, incorporated with MCA on 31 August 2018 at Fingeshwar block of Gariaband district. In Fingeshwar block of Gariaband district, Jaikopeshwar Nath Krishi Producer Company Limited specialises in the production and processing of paddy seeds. Jaikopeshwar Nath Krishi Producer Company Limited's company registration number is 008727 and its Corporate Identification Number (CIN) provided from MCA is U01400CT2018PTC008727.

Their quest of quality has resulted in high-yielding seeds, establishing the company as a reliable partner for farmers. They have continually updated their goods and techniques to provide the finest science possible while boosting farm output and ensuring food and nutritional security for millions of people.

### 2. Research Methodology

Out of 33 districts of the Chhattisgarh state, Gariaband district has been selected specifically for the present study. At present, Gariaband district includes 5 blocks viz. (1)Fingeshwar 2) Gariaband 3) Chhura 4) Mainpur 5) Deobhog To achieve the main goal of producing paddy seeds under the Jaikopeshwar Nath Krishi Producer Company Limited and marketing them to farmers at reasonable prices.

### 3. Result and Discussion

In this chapter, the results and discussion are presented which were obtained during the work. This chapter deals with the study related to the performance of Jaikopeshwar Nath Krishi Producer Company Limited, village Bhendri Gariaband district of Chhattisgarh. The results have been presented and interpreted under suitable headings and sub-headings:

#### 3.1 General characteristic of paddy seed grower

The socio-economic characteristics of the grower have a direct impact on the operation of farming and organisational activities. It helps in decision making process for different activities because younger people handle hard work and more experienced farmers have more knowledge about farming activities, they can easily handle any difficulties during farming.

### 3.2 Average land holding size of Paddy seed growers (ha./grower)

Table 1 presents statistics on total farmers from the Jaikopeshwar Nath Krishi Producer Company Limited seeds. It reveals that total land holding of Paddy seed growers were 189.10 hectares and average size of land holding were 2.10 hectares.

**Table 1:** Paddy seed growers' average land holding size (Hectare)

S.N.	Particular	Land holding
1.	Total no. of Paddy seed grower	90
2.	Total cultivated land	189.10
3.	Average size land holding	2.10

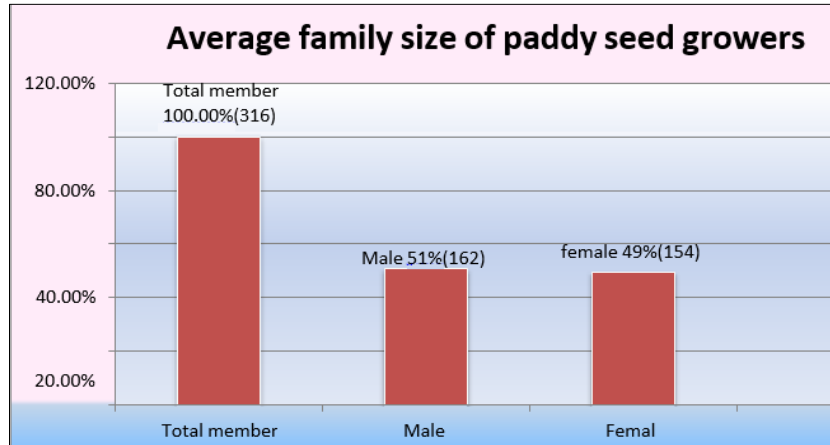
### 3.3 Average family size of paddy seed grower

Table 2 shows that a total of 90 grower's families were chosen, with a total of 316 family members. Grower families had an average of 3.51 people, with 51.26 percent male and 48.73 percent female members.

**Table 2:** Average family size of paddy seed grower

S. No.	Particular	Member	Percent (%)
1	Male	162	51.26
2	Female	154	48.73
3	Total family member	316	100
4	Average family size	3.51	-

**Note:** Figures in the parentheses indicate the percentage



**Fig 1:** Average family size of paddy seed grower

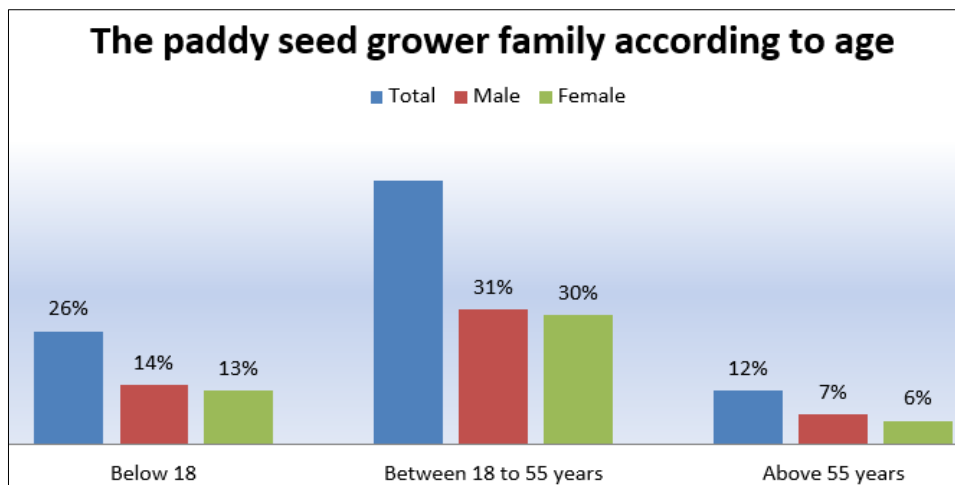
### 3.4 The paddy seed growers family according to age

Age is an important factor in making a decision regarding the operation of any type of business. The older the respondents were, the greater their experience in farming, and this translated to more encounters with risks. In the case of grower's family, they were divided into three categories according to age. Under the age of 18, 13.60 percent of males and 12.65 percent of females were found. Across various age groups, 31.32 percent males and 30.06 percent of the respondents were females, reflecting middle age (18 to 55 years). Around 6.64 percent males and 5.70 percent of females, respectively, were over 55 years old. It appears that the middle and younger generations are showing an interest in being involved in the cultivation of paddy seeds.

**Table 3:** The grower's family according to age (percent)

S. No.	Particular	Members	Percent (%)
1	<b>Below 18 years</b>		
A	Male	43	13.60
B	Female	40	12.65
	Total	83	26.26
2	<b>Between 18 to 55 years</b>		
A	Male	99	31.32
B	Female	95	30.06
	Total	194	61.38
3	<b>Above 55 years</b>		
A	Male	21	6.64
B	Female	18	5.70
	Total	39	12.33

**Note:** Figures in the parentheses indicate the percentage



**Fig 2:** The paddy seed grower's family according to age

### 3.5 Educational status of Paddy seed growers family

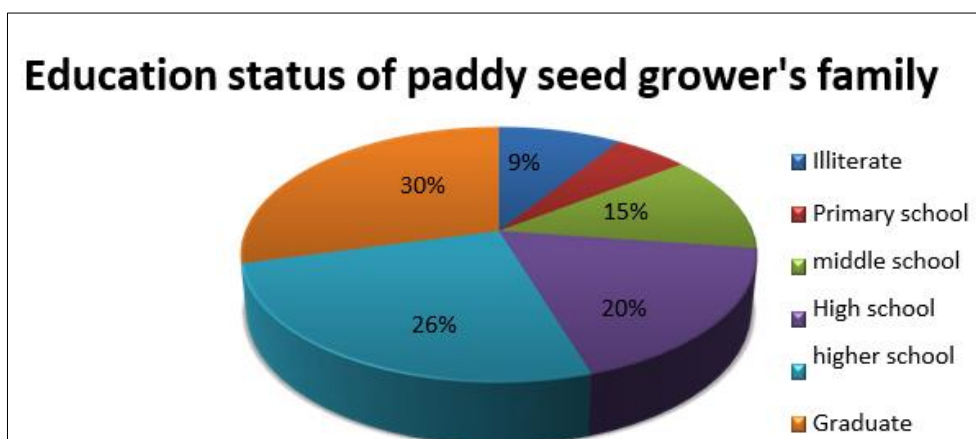
Education is an essential aspect in individual development, as well as the development of a culture, society, and nation. If Paddy seed growers are educated, farming methods and ideas will be reasonably simple to disseminate.

Table 4 shows that majority of the grower and family member are graduates (29.74percent), 25.63 percent members had higher school level of education followed by 20.25 percent were high school level of education, 14.55 percent had middle school of education and 9.49 percent of members are found illiterate. Whereas 5.52 percent had primary school level of education.

**Table 4:** Educational status of paddy seed grower’s family

S. No.	Education	Members	Percent (%)
1.	Illiterate	30	9.49
2.	Literate	286	90.51
3.	Primary school	31	9.81
4.	Middle school	46	14.55
5.	High school	64	20.25
6.	Higher school	81	25.63
7.	Graduate	94	29.74
8.	Total	316	100

**Note:** Figures in the parentheses indicate the percentage



**Fig 3:** Education Status of paddy seed grower’s family

### 3.6 Cost of cultivation

Table 5 shows the average cost of paddy cultivation. The average cost of paddy cultivation per hectare was calculated to be Rs. 53826.48, with machinery charges accounting for 19.51 percent of the total cost of paddy cultivation, which was Rs. 10502. Human labour (both family and hired) was determined to cost 4.64 and 16.21 percent of the overall cost,

with values of Rs. 2500 and Rs. 8728, respectively. Plant protection (herbicides, pesticides, hormones, etc) accounted for 11.67 percent of total cost, while fertiliser and manure accounted for 9.71 percent. The overall rental value of owned land was Rs. 15000, accounting for 27.86 percent of the total cost of paddy production.

**Table 5:** Cost of cultivation of paddy (Rs/ha)

S. No	Particular (A) Variable cost	Amount (Rs)	Percent
1.	<b>Labour cost</b>		
a.	Family labour	2500	4.64
b.	Hired labour	8728	16.21
c.	Machine labour	10502	19.51
	Total labour cost	21730	40.36
2.	<b>Input cost</b>		
a.	Seed	2800	5.20
b.	Fertilizers and manure	5229	9.71
c.	Plant protection	6286	11.67
d.	Irrigation charges	415	0.77
e.	Registration fees	50	0.09
f.	Supervision fees	300	0.55
g.	Seed testing fees	75	0.13
h.	Miscellaneous Charges	900	1.67
I	Interest on working capital	627.48	1.16
	Total input cost	16682.48	30.95
	Total variable cost	38412.48	71.31
	<b>(B) Fixed cost</b>		
a.	Rental value of owned land	15000	27.86
b.	Land revenue	12	0.02
c.	Depreciation	210.51	0.39
d.	Interest on fixed capital	191.49	0.35
e.	Total fixed cost	15414	28.62
	Cost of cultivation	53826.48	100%

**Note:** Figures in the parentheses are percentage to total cost of cultivation of Paddy seed

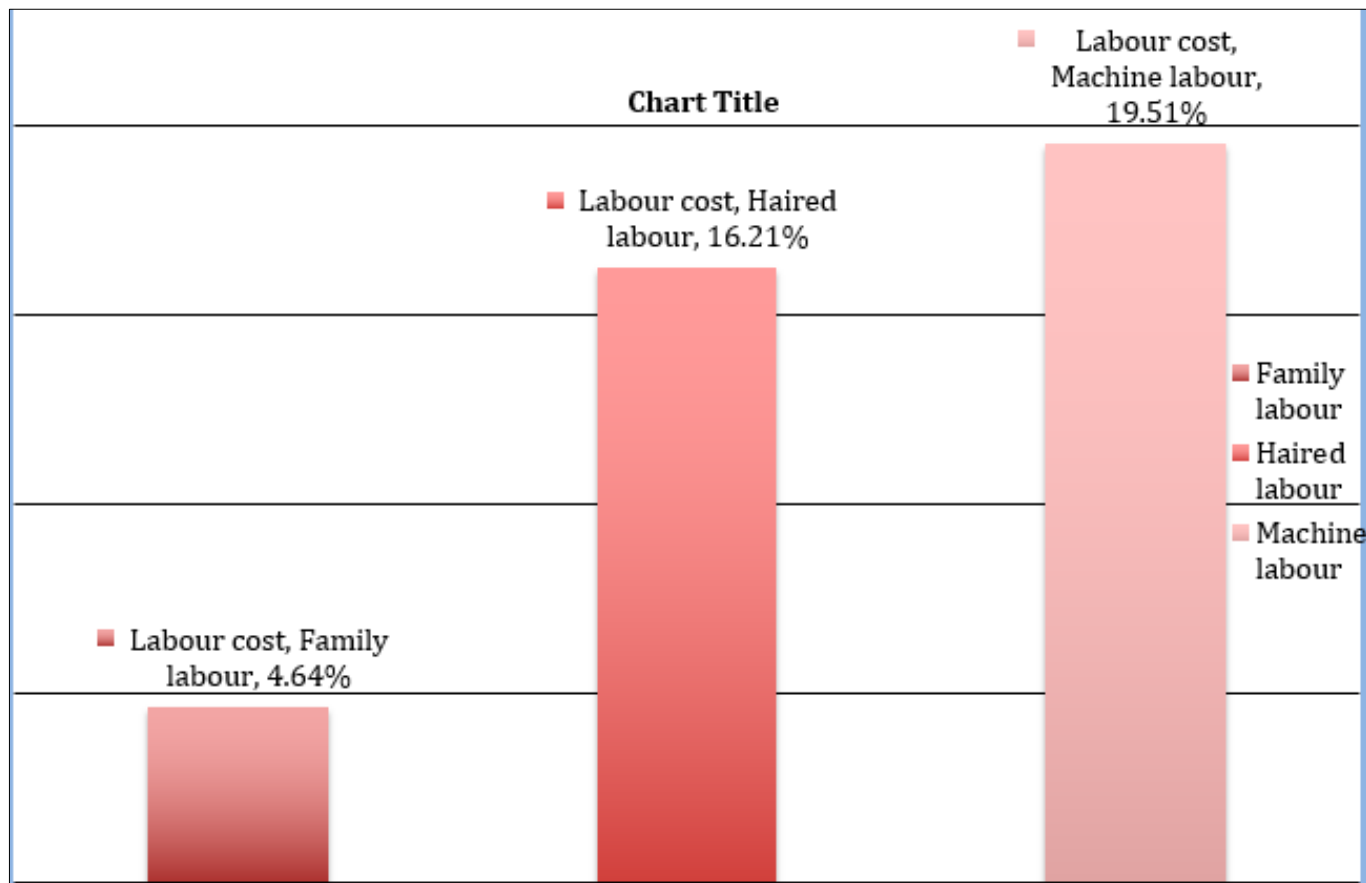


Fig 4: Labour cost of paddy Seed cultivation (in Percent)

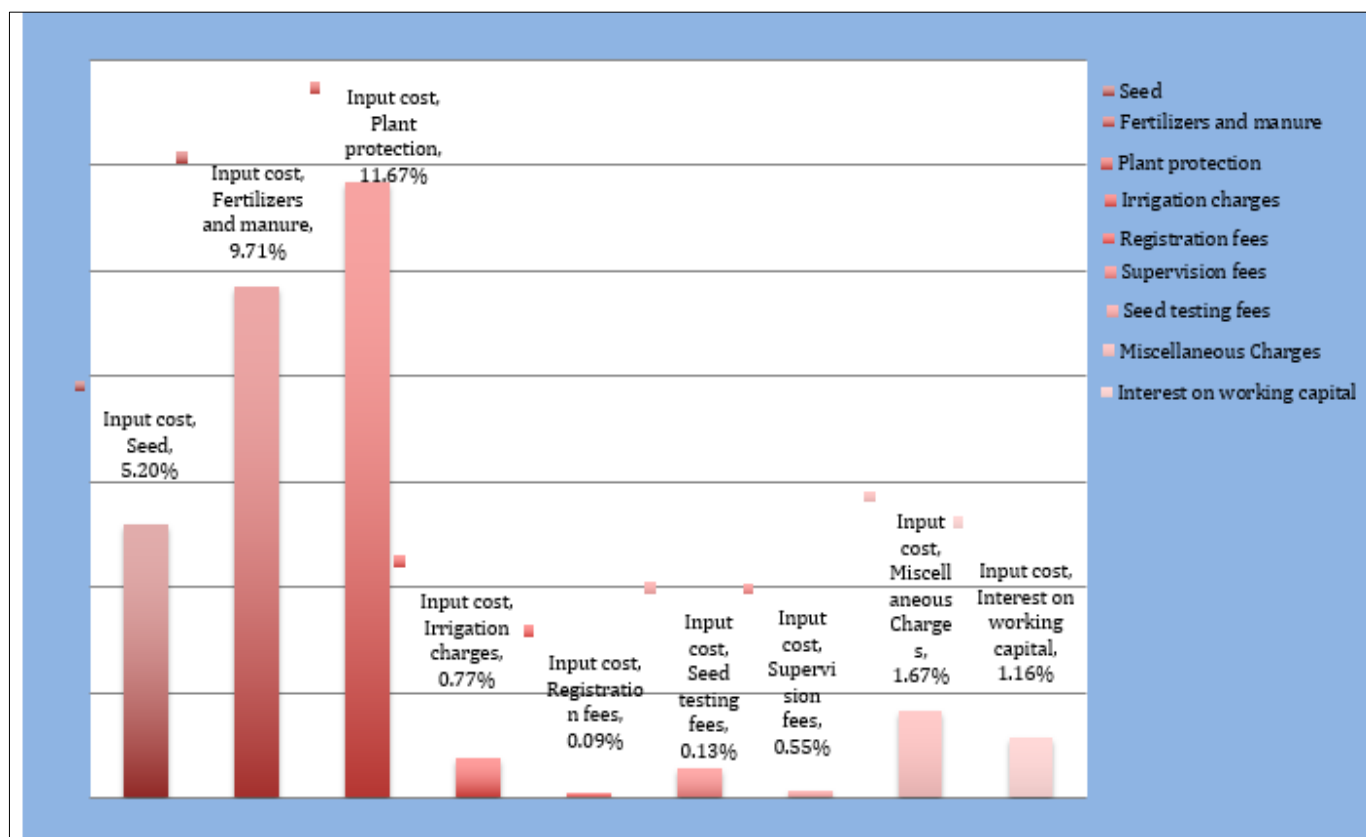


Fig 5: Input cost of paddy seed cultivation

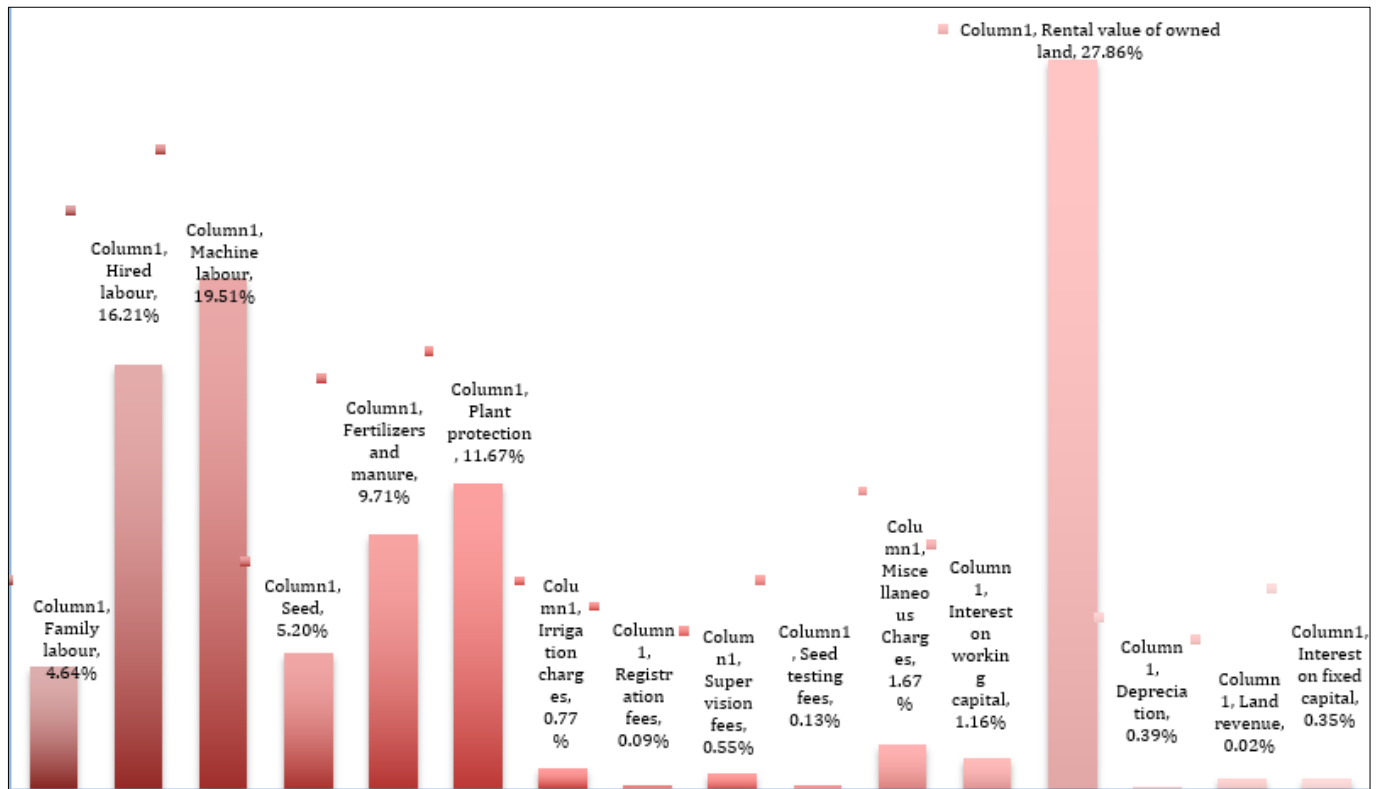


Fig 6: Average cost of paddy Seed cultivation (in percent)

**3.7 Cost of cultivation based on cost concept**

The cost of cultivation per hectare on the CACP basis for paddy was calculated and presented, revealing that on average, Cost A1 came to Rs. 36134.99 and Cost A2 is Rs.

36134.99. On an average, Cost B1 came to Rs. 36326.48 and Cost B2 is Rs. 51326.48. On an average Cost C1 came to Rs. 38826.48 and Cost C2 is Rs. 53826.48 and Cost C3 came to Rs. 59209.12.

Table 6: Cost of cultivation of paddy (Rs./ha.)

S. No	Particular	Amount (Rs.)
1	Cost A1	36134.99
2	Cost A2	36134.99
3	Cost B1	36326.48
4	Cost B2	51326.48
5	Cost C1	38826.48
6	Cost C2	53826.48
7	Cost C3	59209.12

**3.8 Yield and Returns of seed production paddy**

The total cost of cultivation per sample unit was found to be Rs. 53826.48 (Table 6). According to Table 7, the average main product output was 62.15 quintals per hectare, while the

average by product production was 76 quintals per hectare, yielding a return of Rs. 174020 and Rs. 15200.00, respectively. The average gross income per hectare was Rs. 189635, while the net profit per hectare was Rs. 135809.

Table 7: profitability aspect of paddy seed cultivation (Rs./qt.)

S. No.	Particular	Average production (Qt./ha.)	Return /Amount (Rs. /ha.)
<b>Cost of Cultivation</b>			
I	Main product (paddy)	62.15	174020.00
II	By product (paddy straw)	76	15200
1.	Gross income	-	189635.00
2.	Total cost (A+B)	-	53826.48
3.	Net income	-	135809
4.	Input output Ratio	-	1:1.39

Note: Figures in the parentheses indicate the percentage

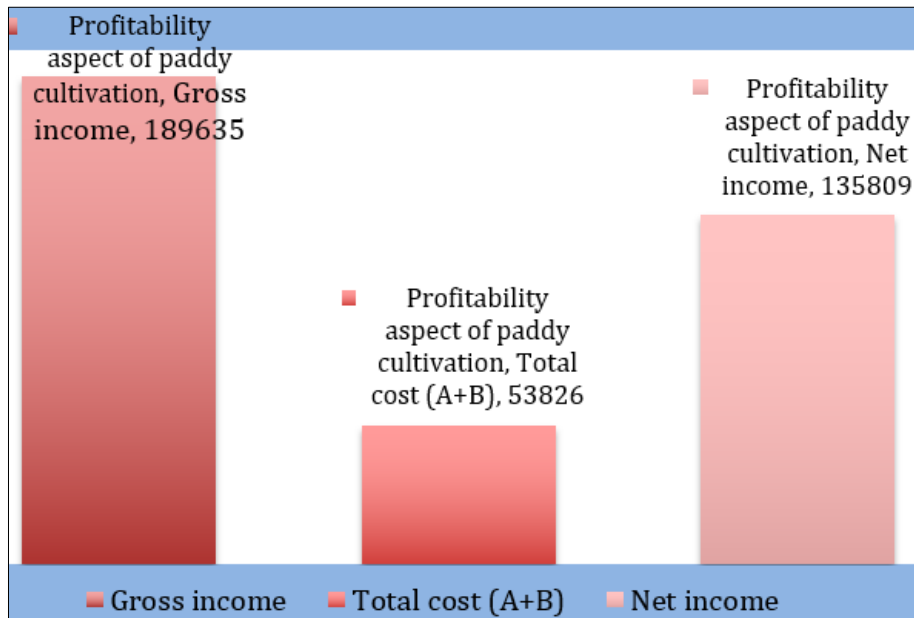


Fig 7: Profitability aspect of paddy seed cultivation

**3.9 Returns over different cost**

Returns over different cost were worked out and show in table 8 on an average, it was observed be Rs. 1153500.01, Rs. 153500.01, Rs. 3308.52, Rs. 143153308.52, Rs. 153308.52, Rs. 135808.52 and Rs. 130425.88 Cost A1, Cost A2, Cost B1, Cost B2, Cost C1, Cost C2 and Cost C3 respectively.

Table 8: Returns over different cost were worked out

S.No	Particular	Amount (Rs.)
1	Cost A1	153500.01
2	Cost A2	153500.01
3	Cost B1	153308.52
4	Cost B2	153308.52
5	Cost C1	150808.52
6	Cost C2	135808.52
7	Cost C3	130425.88

**4. Conclusion**

The farmers are registered members under Jaikopeshwar Nath Krishi Producer Company Limited and total production by the growers was promptly sold to Jaikopeshwar Nath Krishi Producer Company Limited Seeds, which are processed and sent to other agencies. The average cultivation cost per hectare of rice seed was Rs. 53826.48. The average yield of paddy seed was 62.15 quintals per hectare, while the byproduct produced from the paddy crop was 76 quintals per hectare. The average input-output ratio was 1.39:1. Paddy seed had an average gross income of Rs. 189635 per hectare and a net income of Rs. 135809. Their pursuit of excellence has resulted in high-yield seeds that have made the company the trusted partner for farmers. They have steadily transformed their products and processes to deliver the best of science, while enhancing farm productivity and ensuring food and nutritional security for millions of people. With approximately more than 90 production paddy seed growers on 189.10 hectares of land across 12 villages. Its annual turnover is reported at 5,000 quintals.

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