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COST AND RETURNS ON COTTON PRODUCTION UNDER CONTRACT AND NON-CONTRACT FARMING IN KALLAKKURICHI DISTRICT OF TAMIL NADU

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ABSTRACT

Cotton is a soft, fluffy fibrous material which belongs to Malvaceae family. Cotton is the king of fiber, usually called White gold and is considered to be an industrial commodity of worldwide importance**.** Cotton is one of the most important fiber and cash crop of India and plays a dominant role in the industrial and agricultural economy of the country. India ranks first in acreage (about 91.58 lakh ha) among various cotton growing countries in world but three four in average yield (501kg lint/ha). Contract farming has taken many dimensions and has become the most popular issue in cotton production. The objectives of the study is to examine the cost and returns of cotton under both contract and non- contract farming in Kallakurichi district. The unit of cost of production was worked out and it was Rs.11102.79/Q and Rs. 8812.857/Q in contract and non-contract farming respectively. The profit per Quintal of cotton was Rs.1071.91 and Rs.757.1 for contract and non-contract farmers respectively. The benefit cost ratio for contract farmer was 1:1.8 and 1:1.37 for non-contract farmers which indicated that contract farmers earned Rs.1.88 as benefit for everyone rupee and non-contract earned Rs.1.37 as benefit from one rupee. The risks on contract farming of cotton were lower when compared to the non-contract farming system. Contracts cotton production was more profitable than non-contract cotton production.

Keywords: Cotton Production, Contract Farming, non-contract farming, Cost and Returns.

INTRODUCTION

Cotton is a soft, fluffy fibrous material which belongs to Malvaceae family. Cotton is the king of fiber, usually called White gold and is considered to be an industrial commodity of worldwide importance**.** Cotton is one of the most important fiber and cash crop of India and plays a dominant role in the industrial and agricultural economy of the country. In India, there are ten major cotton growing states which are

divided into three zones viz. the north zone (Punjab, Haryana and Rajasthan) the central zone (Maharashtra, Madhya Pradesh and Gujarat), and the southern zone (Andhra Pradesh, Karnataka and Tamil Nadu). India is leading cotton producing in worldwide in 2019/2020. The annual world production of cotton changed from 26.7 million tons in 2018/2019 and is currently estimated with 25.9 million tons in 2018/2020. Consequently, cotton is accounting for approximately 2.5 per cent of the world arable land. For the season 2019/2020 the top ten cotton producers are India, China, United States, Brazil, Pakistan, Turkey, Mexico, Australia and Mali. Africa as continent delivers a total of 1.7 million tons of cotton to its customers.

India ranks first in acreage (about 91.58 lakh ha) among various cotton growing countries in world but three four in average yield (501kg lint/ha). In recent years globalization of Indian agriculture need export products quality oriented having comparative advantage. To fulfill the World Trade Organization (WTO) commitment, the recent demanding the system of quantitative restrictions (QRs) on imports by the union Government has provided new challenge to the Indian farmers to compete in the world market with the WTOs demand for trade liberalization and subsidy cut to farmers.

In Tamil Nadu total production of cotton is usually lower than its requirement. This crop is extensively being cultivated in then districts of Virudhunagar, Salem, Madurai and Coimbatore and these districts combined together accounted for 43 per cent of total area under cotton in the state as of 2019-2020. In Tamil Nadu total area under cotton cultivation is 1.40 lakh ha with production of 6.00 lakh bales with productivity of 728 kg ha.

Contract farming can be understood as a firm lending “inputs” — such as seed, fertilizer, credit or extension — to a farmer in exchange for exclusive purchasing rights over the specified crop. It is a form of vertical integration within agricultural commodity chains so that the firm has greater control over the production process and final product. Contract farming is attracting considerable academic and policy attention. Thus, a useful starting point is the recognition that contract farming sits somewhere between fully vertically integrated investments (when a firm is involved in all the nodes of the value chain, from production, through processing to marketing) and spot markets (where price determination is a function of supply and demand).

Contract farming is a prominent and growing phenomenon in Indian agriculture. Globalization, liberalization and the growth of organized retail have intensified the role of the agribusiness firms who are entering into contract with farmers for the purchase of raw materials. Contract farming has been receiving increasing attention from agribusiness firms as well as from the government for more than a decade. The objectives of the study is to examine cost and returns of cotton under both contract and non- contract farming of cotton in Kallakurichi district.

METHODOLOGY

Kallakurichi district was purposively selected for the present study since it occupied the large position in area and production of Cotton and this district has black soil which is suitable for cotton production. Here farmers are following contract farming for cultivation of cotton and some of the farmers are not following contract farming (non-contract farming) for cotton cultivation. The total number of

respondents (Cotton growing farmers) are 120 members here 60 farmers selected as each group based on the contract farming and non-contract farming and also based on blocks it is divided into 60 samples. The selected revenue villages were arranged in the ascending order based on the proportion of cotton cultivation area to the total cropped area, thus constituting a total sample size of 60 farmers.

Cost of Cultivation

It includes all the costs incurred for the production of the Cotton. The production costs were divided into variable cost and fixed cost. The variable cost included the farmyard manure, plant protection chemicals. weeding, irrigation. labour cost for various operations. The fixed cost included the revenue, depreciation cost and rental value of land.

Yield

The total yield of Cotton obtained by farmers is expressed in terms of tonnes per hectare.

Return

Gross income is the total value of main and by products at the prevailing, market price.

Net Income

It is estimated by deducting total cost from gross income.

Cost Analysis

In order to assess the profitability and economic viability of cotton cultivation, various components of cost were estimated. The details of these cost coop, are given as

Cost A1: It consists of all actual expenses in cash and kind incurred in production by the owner operator. It includes cost of hired human labour, cost of manures and fertilizers, cost of plant protection chemicals, irrigation cost, interest on working capital, land revenue and depreciation of fixed capital.

Cost A2: Cost A1 plus rent paid for leased in land.

Cost B: Cost A2 plus imputed rental value of owned land plus interest on owned fixed capital assets.

Cost C: Cost B plus imputed value of family labour. Cost C is the total cost of cultivation or gross cost.

Returns

a) Gross Income

Gross income was obtained by arriving at the total value of crops, valued at the harvest price in the reference period.

Gross return = value of main product

b) Net Income

The net income was computed by subtracting the total (Cost C) from the gross income. Net returns = Gross returns- cost of cultivation.

c) Cost of Production Per Unit

Cost of production per tonne of Cotton was arrived at by dividing the total cost of production Per hectare by the total per hectare yield of cotton, in tonnes.

d) Output/ Input Ratio

Output input ratio was obtained by dividing the gross income by total cost of production per hectare.

RESULT AND DISCUSSION

Costs and Returns in Cotton Cultivation

The comparative cost of cultivation and net returns per hectare for Cotton in contract and non-contract farming were worked out and presented in Table 1. The total cost of cultivation per hectare of cotton was Rs. 105476.52 and Rs. 66096.43 in contract and non- contract farming, respectively. The share in human labour in total variable cost was 29.92 per cent in contract farmers and 15.84 per cent in non-contract farmers, which indicated that Cotton is a labour-intensive crop. Secondly, the value of cotton seeds occupied zero per cent in contract farming, which means cotton seeds were provided free of cost in contract farming and 7.86 per cent in non- contract farming, respectively.

In Cotton contract farming, the share of fertilizer in the total variable cost was less (14.46 per cent), the share of plant protection chemicals was 21.42 per cent. This might be due to the reason that more than 80 per cent of contract farmers were educated and having good contact with the company. Non-contract cotton farmers are also applying fewer quantities of plant protection chemicals and its share in total variable cost was 9.83 per cent in cotton cultivation.

Table 1 Cost of Cultivation for Cotton under Contract and Non-Contract Farming

S. No	Particulars	Contract Farmers		Non-Contract Farmers	
		Expenditure (Rs. /hectare)	Percentage of Total	Expenditure (Rs. /hectare)	Percentage of Total
I.	**Variable Cost**				
1.	Human labour	32605.00	29.92	10470.31	15.84
2.	Machine labour	1100.80	1.009	6302.08	9.53
3.	Seeds	-	-	5200.00	7.86
4.	Manures	5305.70	4.87	3950.41	5.97
5.	PPC	15755.60	21.42	6501.21	9.83
6.	Fertilizer	23342.90	14.46	10526.21	1.55
7.	Irrigation charges	-	-	-	-
8.	Interest on working Capital	4736.12	4.35	2500.24	3.78
9.	Total variable cost	82846.12	78.54	45450.46	68.76
10.	Depreciation	147.08	0.14	667.20	1.00
11.	Land revenue	370.00	0.35	370.00	0.55
II.	Cost A1	83363.22	79.03	46487.66	70.33
III	Cost A2	84363.22	79.98	47287.66	71.54
IV.	Cost B1	86863.22	82.35	49287.66	74.56
V.	Cost B2	94388.22	89.48	58087.66	87.88
V.	Cost C1	88363.22	83.77	51287.66	77.59

VI.	Cost C2	95888.22	90.90	60087.66	90.90
VII.	Cost C3	105476.52	100	66096.43	100
VI.	Yield quintal / hec	9.55		7.55	
VII.	Price / quintal	20000		10000	
VIII.	Gross Income	190000		75000	
IX.	Net Return	84528.48		8903.56	
X.	Cost of Production (Rs. /quintal)	11102.79		8812.86	

Table 1 shows that the net returns realized by contract farmers was Rs.50, 000 higher than that of non-contract farmers. This was due to the reason that higher productivity and free cotton seed cost in contract farming and provision of extension services. The unit of cost of production was worked out and it was Rs.11102.79/Q and Rs. 8812.857/Q in contract and non-contract cotton farming, respectively. The profit per quintal of cotton was Rs.1071.91 and Rs.757.11 for contract and non-contract farmers, respectively. The benefit cost ratio for cotton contract farmer was 1:1.8 and 1:1.37 for non- contract cotton farmers, which indicated that contract farmers earned Rs.1.88 as benefit for everyone rupee and non-contract earned Rs.1.37 as benefit from one rupee.

Gross income of cotton contract farmers was higher than non-contract cotton farmers, which equal to Rs.190000 and Rs.75000. Net return earned by contract farmers and non- contract farmers in cotton cultivation were Rs. 84528.48 and Rs. 8903.56. Cotton contract farmers get more net return as compared to non-contract cotton farmers. Cost of production was Rs. 11102.79 and Rs. 8812.86 in cotton contract farmers and non-contract cotton farmers, respectively.

CONCLUSION

The Cotton Contract farming is more profitable than non-Contract farmers. Gross income of cotton contract farmers was higher than non-contract cotton farmers was Rs.190000 and Rs.75000. Net return earned by contract farmers and non- contract farmers in cotton cultivation was Rs. 84528.48 and Rs. 8903.562.The yield, and net return per hectare on contract farms of cotton were found to be significantly higher over the non-contract farms indicating contract farming economically more profitable. The risks on contract farming of cotton were lower when compared to the non-contract farming system. Contracts cotton production was more profitable than non-contract cotton production. Cotton contract farmers were experienced in Cotton cultivation and they had only more than 25 years of experienced in both contract and non-contract farming. Here, in this study concluded that most of the farmers interested to go for contract farming especially in Cotton crop.

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