



Research Paper

Costs, returns and profitability of cashewnut in South- Goa district of Goa state

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ABSTRACT : Investigation was carried out during the year 2014-15. In all 48 cashewnut growers were randomly selected from sixteen villages of two tehsils in South-Goa district of Goa State. Cross sectional data were collected from cashewnut growers with the help of pretested schedule by personal interview method. Data were related to cashewnut output and inputs like machine labour, manure, fertilizers, irrigation and family human labour as resources. Cost concepts function was fitted to the data. The result revealed that, Cost-C was Rs. 106258.22 in cashewnut production. Among the various items of expenditure, the proportionate share of rental value of land was predominant as 31.01 per cent followed by family human labour (14.04%), hired human labour (13.34%), manure (8.00%) and amortized cost (6.80%), respectively. It was observed that gross return was obtained Rs. 197806.98 and net profit was Rs. 91548.76 in cashewnut production. Output- input ratio found to be 1.86 that means when 1 rupee spent on cashewnut production it would lead to give return of Rs. 1.86. It inferred that cashewnut production was profitable enterprise in Goa state.

KEY WORDS: Cashewnut, Per hectare, Cost-C, Returns, Net profit

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INTRODUCTION :

Cashewnut (*Anacardium occidentale* L.) is one of the most important plantation crop in Goa State. Cashewnut often referred to as wonder nut and is one of the most valuable processed nuts traded on the global commodity markets and is also an important cash crop. It has the potential to provide source of livelihood for the cashew growers, empower rural women in the processing sector, creating employment opportunities and generating foreign exchange through exports.

It is a tropical plant and can thrive even at high temperature. The distribution of cashewnut is restricted

to altitudes upto 700 meters above mean sea level where the temperature does not fall below 20°C for prolonged period. The land preparation work should be completed prior to the onset of monsoon season that is during May-June. The grafted plants obtained from the superior mother plant are usually planted at the onset of monsoon. It is essential to provide stakes and temporary shade with the locally available materials wherever necessary. If the monsoon rains are inadequate, one or two irrigation can be provided during the initial stages to ensure establishment. Cashewnut plants start bearing after three years of planting. The cashewnuts are harvested during February to May. Normally, harvesting consists of picking

of nuts that have dropped to the ground after maturing. However, if the apples are also used for making jam, juice, syrup and fenni. The cashew apples are removed and the nuts are dried in the sunshine for 2-3 days to bring the moisture level from 25 per cent to 9 per cent. The maturity of the cashewnut is tested by floatation method. The mature nuts sink in water while the immature/ unfilled ones float. The nuts are collected at weekly intervals from the farm during the harvesting season. During that period the land should be clean in order to facilitate collection of cashewnut. At present about 45 cashew processing units in Goa with a total capacity of 50,000 tonnes.

In India area under cashewnut during 2014-15 was 807 thousand hectares with annual production 754 thousand tones and productivity was 934 kg/ ha. In Goa area under cashewnut was 57 thousand hectares with annual production 30 thousand tones and productivity was 526 kg/ ha (Anonymous, 2013).

MATERIALS AND METHODS :

Sampling design :

Multistage sampling design was adopted for selection of district, tehsils, villages and orchard farms

Kanhore (2008). In the first stage, the South- Goa district was purposively selected because of mostly existence of orchard farmings. In the second stage, Sanguem and Quepem tehsils were selected on the basis of higher area under orchard farms. In the third stage, eight villages were selected from the each of tehsils on the basis of higher area under orchard farms. From Sanguem tehsil villages were selected namely Bhati, Cotarli, Kale, Netravali, Rivona, Uguem, Vadem and Xeldem while from Quepem tehsil villages were selected namely Avadem, Balli, Barlem, Dhadem, Malkarne, Mirabag, Pirla and Quitol. In the fourth stage, from each village, the separate list of orchard farmers along with their holding sizes were obtained. From each of the lists, three orchard farmers were randomly selected from each of the villages. In this way, from sixteen villages, 48 farmers were selected for the present study.

The techniques like tabular analysis, arithmetic mean, cost concepts of Cost-A, Cost-B and Cost-C and ratio were used to analyze the data.

RESULTS AND DATA ANALYSIS :

The results obtained from the present investigation as well as relevant discussion have been summarized

Table 1: Per hectare physical input and cost of cultivation of cashewnut production

Sr. No.	Particular	Unit	Physical quantity	Amount	Per cent
Costs					
1.	Hired human labour	Mandays	78.72	14169.77	13.34
2.	Bullock labour	Pairdays	0.00	0.00	0.00
3.	Machine labour	Hours	9.55	4439.13	4.18
4.	Manure	Q	68.05	8505.81	8.00
5.	Fertilizers			579.05	0.54
	N	Kg	42.99	1529.72	1.44
	P	Kg	34.97	902.28	0.85
	K	Kg	31.85		
6.	Plant protection	L	0.00	0.00	0.00
7.	Irrigation	m ³	8135.41	13342.07	12.56
8.	Land revenue			15.00	0.01
9.	Incidental charges			330.20	0.31
10.	Interest on working capital			5914.75	5.57
11.	Depreciation on capital assets			681.12	0.64
12.	Cost-A (1-11)			50408.90	47.44
13.	Rental value of land			32952.83	31.01
14.	Interest on fixed capital			749.23	0.71
15.	Amortized cost			7228.20	6.80
16.	Cost-B (12-15)			91339.16	85.96
17.	Family human labour	Mandays	82.88	14919.06	14.04
18.	Cost-C (16-17)			106258.22	100.00

Table 2 : Profitability of cashewnut production

Sr. No.	Particular	Unit	Quantity	Amount
1.	Main produce (nut)	Q	21.24	174202.33
2.	By produce (cashew apple)	Q	23.60	23604.65
3.	Gross return			197806.98
4.	Cost-A			50408.90
5.	Cost-B			91339.16
6.	Cost-C			106258.22
7.	Farm business income (Gross return minus Cost-A)			147398.08
8.	Familylabour income (Gross return minus Cost-B)			106467.82
9.	Net profit (Gross return minus Cost-C)			91548.76
10.	Output-input ratio (Gross return divided Cost-C)			1.86

under following heads :

Per hectare physical inputs and cost of cultivation of cashewnut production :

Per hectare physical inputs and cost of cultivation of cashewnut was estimated and is presented in Table 1. The results revealed that, use of hired human labour and family human labour was 78.72 and 82.88 man days for cashewnut production while use of machine labour was 9.55 hours. Use of manure was 68.05 quintals while use of nitrogen, phosphorus and potash was 42.99, 34.97 and 31.85 kg, respectively. The use of plant protection was found to be nil because in the study area there was found no infestation of pest and diseases. Among the various items of expenditure, the proportionate share of rental value of land was predominant as 31.01 per cent followed by family human labour (14.04 %), hired human labour (13.34%), manure (8.00%) and amortized cost (6.80%), respectively. More (1999). In cashewnut production Cost-A, Cost-B and Cost-C were Rs.50408.90, Rs. 91339.16 and Rs. 106258.22, respectively.

Profitability of cashewnut production:

Per hectare profitability of cashewnut was estimated and is presented in Table 2. The results revealed that per hectare nut production was 21.24 quintal and cashew

apple production was 23.60 quintal. It was observed that gross return was Rs.197806.98 and net profit was Rs. 91548.76 in cashewnut production Saini (1969).

Conclusion :

Output- input ratio found to be 1.86 that means when 1 rupee spent on cashewnut production it would lead to give return of Rs. 1.86. Wongana (2012). It inferred that cashewnut production was profitable enterprise in Goa state.

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