

Comparative Analysis of Recommended and Estimated Cost of Cultivation of Castor and Potato

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ABSTRACT

The study was conducted in three districts of north Gujarat namely, Banaskantha, Sabarkantha and Mehsana purposively because castor and potato crops are the major crops of these districts. The recommended cost of cultivation of castor and potato crops was decided based on the package of practices recommended by SAU for these crops. The data on actual cost of cultivation were gathered from the reports of the scheme "cost of cultivation" being implemented by Department of Agriculture Economics, C.P.College of Agriculture, S.D.A.U., Sardarkrushinagar. Under the scheme, the information on cost of cultivation was gathered from 120 castor growers and 120 potato growers of which the information of half of the farmers viz, 60 castor growers and 60 potato growers was gathered for calculating actual cost of cultivation. The data revealed that there was 54.87 percent higher expenditure in cultivating potato crop as compared to recommended cost of cultivation. In case of castor crop, the actual cost of cultivation was 18.81 percent higher as compared to recommended cost of cultivation. Of the various package of practices, the farmers make high expenditure on seeds (66.66 percent in case of potato and 73.16 percent in case of castor) and fertilizers (58.20 percent in case of potato and 136.30 percent in case of castor crops.)

Keywords : comparative analysis, cost of cultivation castor, potato

INTRODUCTION

The farmers can minimise it's a profit by two ways viz, increased crop productivity and decreased cost of cultivation. The state Agricultural Universities have released no. of low cost recommendations. The present study therefore planned with the objectives.

- 1 To study the personal and socio economic attributes of respondents.
- 2 To Estimate cost of cultivation of Castor and Potato crops for selected farmers
- 3 To calculate the cost of cultivation as per recommendation of SDAU for Castor and Potato crops.
- 4 To compare the estimated cost of cultivation and calculated cost of cultivation for Castor and Potato crops

METHODOLOGY

The present study was conducted in on going scheme Pak Utpadan Kharch (PUK) and Farm Cost study

in the Economic Department of C.P.College of Agriculture, S.K.Nagar major area covered crop under cultivation Castor and Potato were selected purposively in Sabarkantha (Talod), Banaskantha (Deesa) and Mehsana (Vijapur) Districts. Total 120 potato growers and 120 Castor growers farmers were selected for the study of FCS and PUK Out of those 60 potato and 60 castor growers were selected for the present study.

RESULTS AND DISCUSSION

Table 1: Distribution of the respondents according to their age n=120

Sr. No.	Age group	Number	Percent
1	Young age (15-35)	20	16.66
2	Middle age (36-50)	67	55.84
3	Old age (above 50 years)	33	27.50

The data presented in Table :1 shows that maximum

numbers of respondents (55.84 percent) were belonged to middle age group followed by old (27.50 percent) and young age group (16.66 percent).

Table 2: Categories of farmers according to their land holding n=10

Sr. No.	Categories	Number	Percent
1	Small	26	21.70
2	Medium	74	61.60
3	Large	20	16.70

Data in Table 2. revealed that majority of the respondents (61.60%) had medium land holding level while 16.70 percent and 21.70 percent of the respondents had large level and small level categories of land holding .

Table 3 : Distribution of the respondents according to their source of irrigation n=120

Sr. No.	Categories	Number	Percent
1	Tube well only	84	70
2	Tube well with micro irrigation	36	30

Data in Table 3 revealed that majority of the respondents (84 percent) had utilized tube well as a source of irrigation and remaining (30%) were used micro irrigation.

Table 4 : Income and cost of cultivation per hectore of Potato crop for North Gujarat

Year	Yield qt./ha	Gross-income Rs.	Cost CI Rs	Prof/Loss Rs.
2001-2	192.38	89028	55135	33893
2002-3	224.38	60531	58297	2234
2003-4	212.76	62247	49096	13151
2004-5	227.94	85902	56225	29677
2005-6	219.20	105262	61557	43705
2006-7	239.58	123305	70944	52361
2007-8	285.72	87539	73681	13858
2008-9	183.58	398793	50946	47847
2009-10	200.27	106603	72705	33898
2010-11	313.41	144837	70895	73942

Table 5 : Income and cost of cultivation per hectore of Castor crop for North Gujarat

Year	Yield qt./ha	Gross-income Rs.	Cost CI Rs	Profit Loss Rs.
2001-2	16.93	20119	19156	963
2002-3	15.35	29618	17426	12192
2003-4	17.38	28191	17981	10210
2004-5	16.71	25880	19591	6089
2005-6	17.72	25396	19402	5994
2006-7	18.33	34981	18454	16527
2007-8	20.17	50173	22768	27405
2008-9	18.31	40753	24730	16023
2009-10	19.95	56101	22088	34013
2010-11	18.60	92825	28871	63954

Table 6 : Cost of Fertilizer difference in Potato crop

Sr. No.	Details	N ₂ /ha	P ₂ O ₅ /ha	K ₂ O/ha	Cost Rs/ha
1	Reco, Ferti. Dose	275	138	275	14290
2	Ferti. used by farmers practice	344	230	275	22608
3	Difference	69 (25 %)	92 (66 %)	00	8318

Data in Table 6 revealed that 69.00 Kg. (25 %) N₂/ha and 92Kg. (66 %) P₂O₅/ha. were utilized more by farmers in comparison of recommended dose by farmers practices in Potato crop.

Table:7 Cost of Fertilizer difference in Castor crop

Sr. No.	Details	N ₂ /ha	P ₂ O ₅ /ha	K ₂ O/ha	Cost Rs/ha
1	Reco, Ferti. Dose	120	25	00	2560
2	Ferti. used by farmers practice	174	92	00	6050
3	Difference	54 (45 %)	67 (268 %)	00	3490

Data in Table 7 revealed that 54.00 Kg. (45 %) N₂/ha and 67Kg (268 %) P₂O₅/ha. were utilized more by farmers in comparison of recommended dose by farmers practices in Castor crop.

Table:8 Cost of Seed difference in Potato crop

Sr. No.	Details	Seeds Kg/ha	Purchase source	Cost in Rs	Remarks
1	Reco,Seed.Dose	2500to3000 (2800)	Self	25200	@Rs.9.00/Kg
2	Seed.Used by farmers practice	2500to3000 (2800)	Local market	42000	@Rs.15.00/Kg
3	Difference	-	-	16800 (66 %)	

Table:9 Cost of Seed difference in Rs. of Castor crop/ha

Sr. No.	Details	Seeds Kg/ha	Purchase source	Cost in Rs	Remarks
1	Reco,Seed.Dose	5 to 7	Govt.	1155	@ 165/Kg
2	Seed.Used by farmers practice	10 to 12	Local Market	2000	@ 200/Kg
3	Difference	05	-	845 (73 %)	-

Data in Table : 8 revealed that Rs. 16800/ (66 %) can be saved if farmer utilized recommended seed practice in Potato crop

Data in Table : 9..revealed that Rs.845/- (73 %) can be saved if farmer utilized recommended seed practice in Castor crop

Table:10.Total Cost of cultivation of Potato crops/ha

Sr. No.	Details	Cost as per Recommended Practices in Rs.	Cost as per Farmers Practices in Rs.	increased percentage over recommended practices
1	Seeds	2500 to3000 Kg/ha @ Rs.9.00/Kg. = 25200 Self Seed	2500 to3000 Kg/ha @ Rs.15.00/Kg. = 42000 Local Market	66.66%
2	Fertiliser	275:138:275 Kg/ha =Rs.14290	344:230:275Kg/ha = Rs. 22608	58.20%
	Other factors remains same	-	-	-
Total		Rs. 45777	70895%	54.87%

Data in Table 10.revealed that total cost of C1 of recommended practice is Rs.45777/- while cost as per farmers practice is Rs.70895/- and net cost of cultivation difference

is found Rs.25118/- (54.87 percentage more) if farmers not utilized recommended practice.

Table:11 Total Cost of cultivation of Castor crops/ha

Sr. No.	Details	Cost of cultivation as per Recommended Practices in Rs.	Cost of cultivation as per Farmers Practices in Rs.	Increased cost in percentage over recommended practices.
1	Seeds	5 to 7 Kg/ha @ Rs.165 =1155	10 to 12 Kg@200=2000	73.16%
2	Fertilizer	120:25:0 Kg/ha =Rs.2560	174:92:0 Kg/ha= 6050	136.3%
	Other factors remains same	-	-	-
Total		Rs. 23036	Rs. 28871	Rs. 18.81

Data 11.revealed that total castor cultivation cost of C1 of recommended practice is Rs.23036/- while cost as per farmers practice is Rs.28871/- and net difference is found Rs.4335/- (18.81 % more) if farmers not utilized recommended practice.

CONCLUSION

The study revealed that maximum numbers of respondents were belonged to middle age group mudium land holding level and majority has utilized toube well as source

of irrigation. In potato crop 69 kg. N₂/ha and 92 kg. P₂O₅ were utilized more by farmer in comparison of recommended fertilizer dose while In castor crop 54 kg. N₂/ha and 67 kg. P₂O₅ /ha. were utilized more by the farmers. Potato grower farmers can be saved Rs.16,800/- (66 %) and castor grower farmers can be saved Rs.845/- (73 %) if recommended practices are utilized in seed aspect. In potato crop if farmer avoid recommended practices cost of cultivation increased up to Rs.25,118/- (55 %) while in castor crop increased up to Rs.4335 (19 %).