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Agro processing centre for small farmers

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Abstract

The study was conducted by AICRP on PHT, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola to enhance entrepreneurship in unemployed educated youths in Vidharbha region of Maharashtra. An Agro Processing centre (APC) was established with the support of AICRP on PHT and University. A new Agro Processing centre (APC) was established at Jamthi (Hatgaon), Tq. Murtizapur, Distt Akola (Maharashtra) for Farmer's cooperative society i.e. Krishi Vikas Shetkari Audhogik Sahakari Sasntha. During 2010 the centre earned income of about Rs. 1,46,650/- and the profit gained was Rs. 1,32,318. During 2011 the centre earned income of about Rs. 2,71,250 /- and the profit gained was Rs. 2,24,586. The study showed that if an entrepreneur maintains an Agro Processing Centre (APC) effectively he can generate sufficient income from processing and value addition of food grains and become an ideal for other farmers who are willing to become an entrepreneur.

Keywords: Agro Processing centre, PKV dal mill, entrepreneurship, income, profit.

Introduction

Post harvest processing is one of the necessary steps in conversion, value addition and prevention of loss of agricultural produce. It is essential operation being carried out prior to consumption of agro produce. Most of the post harvest processing operations are performed at urban side resulting into increased cost of transportation and storage requirement besides loss of some important byproducts and post harvest losses. These operations include threshing, cleaning, grading, drying, and storage, which can be treated as primary processing of the farm produce. Operations like de-husking, grinding, de-cortication, milling, oil extraction, use of by-products etc. are the secondary processing operation. Primary or secondary processing of agricultural produce at village level will help to reduce the cost of processed material, giving additional income source to producer, employment generation among the rural youths and in situ value addition. As a result, processed product will be available at lower cost for the rural population also.

It is now necessary to assess the potential for these processing operations at village level. This will generate data for design of model / pilot plant/agro processing centre, which in turn can be installed befitting to the needs of the production locality. Such models / pilot plant/agro processing centre will attract the farmers/village artisans, villagers, unemployed youths and rural entrepreneurs to adopt by themselves for producing value added products. Therefore, the Agro Processing Centres are needed to be established at production catchments.

Objectives

- To establish one new Agro-processing centre on cereals and pulses
- Monitoring performance of Agro Processing Centre

Materials and Methods

I) Project Technical Profile

Project proposal was finalized and the beneficiary was selected. The selection committee had selected the Farmer's cooperative society i.e. Krishi Vikas Shetkari Audhogik Sahakari Sasntha, Jamthi (Hatgaon) Tq. Murtizapur Distt Akola (Maharashtra) for establishment of Agro Processing Centre (APC). About 4500 farmers from 155 villages of two districts are the member of the society. Total land holding of the group is about 40,000 ha and green gram, black gram, pigeon pea are the major crop grown. The society use to sell the farm produce to the organized group of marketing at Nanded. After doing the survey it was observed that, the group can fetch higher price to their produce merely by cleaning, grading and processing of pulses into dal thus enhancing the profit. Further, the seasonal activity of shevai making can

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generate employment and enhance income.

As green gram, black gram, bengal gram and pigeon pea are the major crops grown and huge quantity is produce, thus, there is good scope for establishment of new Agro Processing centre. Crop wise production is shown below.

According to the crop production shown in Table 1, the machineries were selected for establishment APC. Details of machineries are given in Table 2.

Table 1: Cropwise production of farmer's cooperative society (2010)

Sr. No.	Crop	Production, q
1	Pigeon pea	35,000
2	Green gram	20,000
3	Black gram	100
4	Chick pea	10,000
Total		65,100

Table 2: List of Machinery for Agro Processing Centre at Jamthi (Hatgaon)

S. N	Name of Technology	Name of Machinery	No. of units required	Capacity, q/day	Power required (HP)	Rate of units, Rs. (in lakh)	Total Cost, Rs. (in lakh)
1.	Cleaning/ grading	PKV cleaner/ grader cum polisher	03	30	1	0.30	0.90
2.	Dal milling	PKV mini dal mill	03	10	2	0.50	1.50
		Sheller	03	10	5	0.20	0.60
3.	Shevai	Shevai machine	03	01	2	0.30	0.90
		Plat form weighing balance	01			0.30	0.30
	Civil work (foundation and drying yard)						0.90
	Total		13			-	4.50



P 1.1: Installation of PKV mini dal mill PKV cleaner/grader cum polisher



P 1.3: Installation of Shevai machine

II) Performance of Agro Processing Centre (Jamthi)

a) Monitoring of APC in 2010 & 2011

As per the project report the machineries were procured and installed. The working of mini dal mill and shevai machine was explained. To built up working confidence,

demonstration and training to the working persons and members of co-operative society was organized. Performance of APC during 2010 (Table 3) and 2011 (Table 4) is shown below.

Table 3: Performance of Activities at APC, 2010

Sr. No.	Machine	Commodity Processed	Quantity Processed, q	Charges, Rs/q	Amount collected, Rs.
1.	PKV mini dal mill	i) Pigeon pea	381	350	1,33,350
		ii) Black gram	17	200	3,400
		iii) Green gram	32	200	6,400
		iv) Bengal gram	-	-	-
2.	Sewai machine	i) Sewai processing	5	700	3,500
Total			235		1,46,650

Table 4: Performance of Activities at APC, 2011

Sr. No.	Machine	Commodity Processed	Quantity Processed, q	Charges Rs./q	Amount collected, Rs.
1.	PKV mini dal mill	i) Pigeon pea	682	350	2,38,700
		ii) Black gram	-	-	
		iii) Green gram	23	350	8,050
		iv) Bengal gram	57	350	19,950
2.	Sewai machine	i) Sewai processing	6.5	700	4,550
Total			768.5		2,71,250

As the centre was newly established in 2010, the processing at the centre was below expectation level, processed quantity is 235 q only and income earned was Rs. 1,46,650 (Table 3), and during this season progress is satisfactory, the processed quantity is 768.5 q only and income is Rs.2,71,250/- (Table 4) The centre was used to impart trainings and demonstrations to

farmers and entrepreneurs to encourage them to establish such type of Agro Processing Centres in their respective production catchment. About 22 entrepreneurs and 77 farmers participated in 6 training programmes and nearly 123 farmers had participated in 6 demonstrations programs arranged at APC.

Table 5: Operational performance and income generation at APC

Sr. No.	Activities	Processed material (q)		Cost of Process (Rs./q)		Expenditure incurred (Rs.)		Income (Rs.)		Profit/ Loss (Rs.)	
		2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
1	Pigeon pea	381	682	350	350	2263 (E) 3959 (O) 5000 (L) 11,222	11,935 (E) 14,915 (O) 14,700 (L) 41,550	1,33,350	2,38,700	1,22,128	1,97,150
2	Black gram	17	-	200	-	213 (E) 372 (O) 500 (L) 1,085		3,400	-	2,315	-
3	Green gram	32	23	200	350	400 (E) 700 (O) 800 (L) 1,900	403 (E) 503 (O) 600 (L) 1,506	6,400	8,050	4500	6,544
4	Bengal gram	-	57	-	350		998 (E) 1,247 (O) 1,200 (L) 3445	-	19,950	-	16,505
5	Sewai Processing	5	6.5	700	700	125 (E) 125	163 (E) 163	3,500	4,550	3,375	4,387
Total		235	768.5			14,332	46,664	1,46,650	2,71,250	1,32,318	2,24,586

(E – Electricity charges, L – Labour charges and O – Oil charges)

**P 1.4:** Processed Dal at APC**P 1.5:** Drying yard at APC**P 1.6 (a-b):** Entrepreneurship development through Agro Processing Centre

Conclusion

A new Agro Processing centre (APC) was established at Jamthi (Hatgaon) Tq. Murtizapur Distt Akola (Maharashtra) for Farmer's cooperative society i.e. Krishi Vikas Shetkari Audhogik Sahakari Sasntha. During 2010 the centre earned income of about Rs. 1,46,650/- and the profit gained was Rs. 1,32,318 (Table 3 & Table 5). During 2011 the centre earned income of about Rs. 2,71,250 /- and the profit gained was Rs. 2,24,586 (Table 4 & Table 5). The study showed that if an entrepreneur maintains an Agro Processing Centre (APC) effectively he can generate sufficient income from processing and value addition of food grains and become an ideal for other farmers who are willing to become an entrepreneur.

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