Dairy Based Farming System in Chittoor District of Andhra Pradesh

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ABSTRACT

Farming systems represent integration of farm enterprises such as cropping systems, animal husbandry, fisheries, forestry, etc. for optimal utilization of resources bringing prosperity to the farmer. The present study has been made to identify types of farming system and to assess the potentialities for increasing farm income through reallocation of resources in dairy farming system. Andhra Pradesh is one of the developed state of India mixed crop livestock farming is most predominant farming for over 75 present all rural households in the state. of the total livestock population, bovines account for about 77 present indicating their importance in livestock population. In the rural economy, milk is one of the important product of cattle and buffalo enterprises, contributing 37 present of the value of all livestock output. The main purpose of this study was to gain insight into the household and farm economics of dairy farmers in Andhra Pradesh and estimate cost and returns in identified dairy based farming system.

Keywords: Farming system, cost and returns, economics of dairy

1. INTRODUCTION

Agriculture constitutes one of the most crucial sectors of Indian economy by virtue of its being the single largest contributor to National Gross Domestic product (GDP) which hover around 15.7 percent (2011). With the declining farm sizes, it is becoming increasingly difficult to produce enough food to country. At the farmer's level, the incomes that were obtained from the small holdings are not adequate to meet the requirements of the family with no scope existing to increase the land area there is a possibility to enhance the income of the farmers through farming systems approach. This forms the background of the present study.

2. MATHODOLOGY

The study will be conducted in Chittoor district of Andhra Pradesh. In the selected district, the farming systems practiced will be identified along with the mandals. From the mandals identified two mandals with existing farming system will be purposively chosen. Following the same criteria

three villages will be selected from each mandal. From the villages so selected 30 farmers randomly selected. The collected data were analysed using statistical techniques such as, mean, percentages and ratios for better precision of analysis.

3. RESULTS AND DISCUSSION

Cropping patterns with dairy enterprises under existing farming system in the study area. Table:1

Farming systems	Main crops		Annual crops	Non crop enterprise
	Kharif crops	**Rabi crops**		
FS	Paddy Groundnut Bajra	Paddy Groundnut	Sugarcane	Dairy

Table: 2 Cropping patterns

Sl. No.	Particulars	Farming System-I	
		Area	**%**
I.	**Cropping pattern**		
a.	**Kharif season**		
1.	Paddy	0.43	4.3
2.	Groundnut	1.47	17.4
3.	Bajra	1.33	18.1
4.	Fodder jowar		
5.	Ragi		
	Sub total (a)	3.23	39.8
b.	**Rabi season**		
1.	Paddy	1.09	14.85
2.	Groundnut	1.14	21.7
	Sub total (b)	2.23	36.55
c.	**Annual crops**		
1.	Sugar cane	2	23.55
	Sub total (c)	2	23.55
	Gross cropped (a + b +c)	**7.46**	**100**
	Net cropped area	**5.20**	
	Cropping intensity (%)	143.46	
II.	**Allied enterprises (Numbers)**		
a.	Dairy	6.33	

1. Cropping Pattern and Allied Enterprises under existing Farming Systems in the Study Area

It is revealed from the results presented in Table: 2 that major crops grown in *kharif* season include bajra, groundnut and *paddy* in Farming System-I, which contributed to 18.1, 17.4 and 4.3 per cent of total cropped area. dairy was the major allied enterprise in Farming System. The average number of dairy animals per farm was 6.33.

2. Costs and returns in dairy based farming system

The costs incurred and returns realized from different crop enterprises and their shares in total cost and returns were calculated and presented in Table 3. It is observed that among the seven major enterprises, expenditure made towards dairy component was the highest (37.10%), followed by sugarcane (15.22%), *rabi* groundnut (12.36%), *kharif* groundnut (11.52%), *kharif* paddy (9.10%), *rabi* paddy (8.63%) and bajra (6.06%) accordingly to the total variable cost. Among the enterprises, highest share in total cost was in dairy with 33.18 per cent, followed by sugarcane (14.82%), *kharif* groundnut (13.52%), *rabi* groundnut (12.11%), *kharif* paddy (9.24%), *rabi* paddy (8.84%) and bajra (7.76%). The total cost of the Farming System as a whole was Rs. 282908.19 and the gross returns were Rs.456151.45. The contribution of dairy enterprise to the net returns was 48.31 per cent. Among field crops, *rabi* groundnut (17.48%) contributed maximum and stood next to dairy, followed by *kharif* groundnut, *kharif paddy,* sugarcane, bajra and *rabi* paddy with a share of 12.02, 8.66, 7.75, 3.37 and 2.38 per cent, respectively to the net returns in the Farming System. The net returns obtained from the Farming System as a whole was Rs.1,73243.26.

The returns per rupee of expenditure was observed to be the highest in dairy (1.89), followed by *rabi* groundnut, *kharif* paddy, *kharif* groundnut, sugarcane, bajra and *rabi* paddy with 1.88, 1.57, 1.54, 1.37, 1.27 and 1.17, respectively and for the system as a whole it was found to be 1.61.

Table 3. Costs and Returns structure of different enterprises under dairy based farming system

Sl. No.	Particulars	Kharif groundnut	Rabi groundnut	Kharif paddy	Rabi paddy	Bajra	Sugarcane	Dairy	Farming system as a whole
I.	Costs								
	Total variable costs	24802.8 (11.52)	26596.8 (12.36)	19602.5 (9.10)	18565 (8.63)	13033.1 (6.06)	32756.8 (15.22)	79855.1 (37.10)	215212.1 (100)
	Total fixed costs	13456.89 (19.88)	7655.0 (11.31)	6543.9 (9.67)	6430.0 (9.50)	8931.9 (13.19)	10654.5 (15.74)	14024.0 (20.72)	67696.1 (100)
	Total costs	38259.6 (13.52)	34251.8 (12.11)	26146.4 (9.24)	24995 (8.84)	21965.0 (7.76)	43411.3 (14.82)	93879.1 (33.18)	282908.2 (100)
II.	Returns								

Gross returns	59077.0 (12.95)	64532.8 (14.14)	41142.8 (9.01)	29120.1 (6.38)	27850.6 (6.10)	56846.1 (12.46)	177581.9 (38.93)	456151.4 (100)
Net returns	20817.3 (12.02)	30280.1 (17.48)	14996.5 (8.66)	4125.1 (2.38)	5885.7 (3.39)	13434.8 (7.75)	83702.8 (48.31)	173243.3 (100)
Returns per rupee outlay	1.54	1.88	1.57	1.17	1.27	1.31	1.89	1.61

***Figures in parentheses indicate percentage to respective totals**

REFERENCES

[1]   Rai, J and Tiwari, U. S. 2011. Economic evaluation of different farming systems in district Lucknow of Uttar Pradesh. *Agriculture Update*. 6(1):129-132.

[2]   Ram suresh and Hubba lal singh. 2008. Cost and return structure of sugarcane- livestock based farming system in gonda district of Uttar Pradesh. *International journal of agriculture science*. 4(2):477-479.

[3]   Prasad, V.R. and Prasad, Y. E. 2009.Study of economics of cotton and its competing crops in Guntur district of Andhra Pradesh. Mysore Journal of Agricultural Sciences. 43: 234-238.

[4]   Nagaraj, T., Khan, H.S.S. and Karnool, N.N., 1996. Economic analysis of maize-sunflower farming system in Tungabhadra command area, Karnataka. *Farming Systems*, 12(3-4):28-36.