Resource Use Efficiency in Maize Production in Surajpur District of Chhattisgarh

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Abstract: *The present investigation entitled "Resource Use Efficiency (RUE) in Maize Production in Surajpur District of Chhattisgarh" during 2017 - 2018. total of 60 farmers were selected randomly from six villages were representing marginal, small, medium and large farmers. Maize crop was selected for the study purpose. The primary data were collected through personal interview from sampled households using survey method using well structure schedule. Data analysis was carried out using tabular and practical analytical tools. The average size of the family was estimated at 5.53 and 71.08 percent of literacy was found. . The average sampled household operational land holding size was 2.00 hectares with a cropping intensity of 192.00 per cent. Rs.29427.78/ha were calculated on average cost of maize cultivation. It was estimated that the total net return was Rs.33967.76. The overall maize input - output ratio on the sampled household was 1: 2.20. The function of Cobb - Douglas production was found to be best suited for this study. Expenditure on plant protection measures, machine labour, manure and fertilizer had a significant impact on the production of maize.*

Keywords: RUE, Production, Cobb - Douglas production function

1. Introduction

Maize (zea mays) is one of the most important cereal crop after rice. Maize named "Queen of Cereals, " also known as maize, is one of the world's most important cereal crops. Maize, botanically known as Zea mays, belongs to the Graminae family of grains. Maize can be stored long, provide numerous useful food products and it is the main cereal crop for monsoon season in areas. It is grown both for grain and forage. Maize has the highest productive role among all the world's cereal crops. Maize is growing in kharif and rabi seasons in Chhattisgarh state. The major area & production of maize was found in Kharif than that of Rabi season. Maize production plays a major role in improving the economic conditions of farmers, especially marginalized and small farmers and fulfilling the dietary needs of the people of India.

2. Materials and Methods

The present study was conducted in Surajpur district of Chhattisgarh. Surajpur is a district of Central India which includes six blocks Surajpur, Ramanujnagar, Premnagar, Bhaiyathan, Odagi and Pratappur. Pratappur and Surajpur blocks have taken into consideration randomaly for the study. Among the sampled blocks 3 villages for each block will be undertaken for selection of maize growers. From the sampled villages, 10 maize growers for each villages will be randomaly selected for interview required for the study. Therefore, total 60 maize growers considered for the study; which comprised of 30 maize growers for Pratappur block & 30 maize growers for Surajpur block. Primary data required for this study: which will be taken from the sampled maize growers using pretested schedule and questionnaire, personal interview methods on various aspects to fulfill the research objective.

3. Result and Discussion

The sample household croppimg pattern and cropping intensity (ha / farm) is presented in the table:

Table: The sample household cropping pattern and cropping intensity (ha / farm):

S. N.	Crops	Farm size
A.	Kharif	
1.	Paddy	1.29
2.	Maize	0.81
3.	Sugarcane	0.1
	Sub Total	2.00
B.	Ravi	
1.	Sugarcane	1.05
2.	Wheat	0.30
3.	Mustard	0.06
	Sub Total	1.41
C.	Summer	
1.	Maize	0.07
2.	Vegretable	0.06
	Sub Total	0.13
Gross cropped area		3.54
Net cropped area		2.00
Cropping intensity (%)		177.00

This presents the cropping pattern at the sampled farms. The gross cultivated area is observed a total of 3.54 hectares in sampled farms, respectively. During the kharif season, the gross crop area of 2.00 hectares (percent) is allocated while the remaining 1.41 hectares (36.71 percent) are allocated overall during the rabi season. The table shows that the farmers use more land area for cultivation of maize in kharif season than the summer season and farmers do not grow maize crop in ravi season. Also farmers uses more land area for cultivating the crops in kharif season than the other two seasons. In this study area the overall cropping intensity is estimated at 177.00 per cent.

4. Conclusion

The farmers use more land area for cultivation of maize in kharif season than the summer season and farmers do not grow maize crop in ravi season. Also farmers uses more land area for cultivating the crops in kharif season than the other

two seasons. In this study area the overall cropping intensity is estimated at 177.00 per cent.

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